Hearing Date: July 26, 2024
J:\MANDATES\2009\TC\09-TC-03 SARWQCB Order No. R8-2009-0030\SCE\TOC.docx

ITEM 7

PROPOSED STATEWIDE COST ESTIMATE

California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2009-0030, Sections XI.4, XIII.1, XIII.4, XIII.7, XVIII.B.8, and XVIII.B.9, Adopted May 22, 2009

09-TC-03

Period of Reimbursement from June 1, 2009 through December 31, 2017

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STATE of CALIFORNIA
COMMISSION ON STATE MANDATES

September 28, 2023

Exhibit A

Mr. David Burhenn
Burhenn & Gest, LLP
12401 Wilshire Blvd., Suite 200
Los Angeles, CA 90025

Ms. Natalie Sidarous
State Controller's Office
Local Government Programs and Services Division
3301 C Street, Suite 740
Sacramento, CA 95816

And Parties, Interested Parties, and Interested Persons (See Mailing List)

Re: Decision and Parameters and Guidelines
California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2009-0030, Sections XI.4, XIII.1, XIII.4, XIII.7, XVIII.B.8, and XVIII.B.9, Adopted May 22, 2009, 09-TC-03
Santa Ana Regional Water Quality Control Board, Resolution No. R8-2009-0030, adopted May 22, 2009
County of Orange, Orange County Flood Control District; and the Cities of Anaheim, Brea, Buena Park, Costa Mesa, Cypress, Fountain Valley, Fullerton, Huntington Beach, Irvine, Lake Forest, Newport Beach, Placentia, Seal Beach, and Villa Park, Claimants

Dear Mr. Burhenn and Ms. Sidarous:

On September 22, 2023 the Commission on State Mandates adopted the Decision and Parameters and Guidelines on the above-captioned matter.

Please keep the Decision and Parameters and Guidelines together as one document, as it together constitutes the entire decision of the Commission and the "Decision" portion informs the interpretation of the "Parameters and Guidelines." It is hoped that by providing the entire Decision and Parameters and Guidelines with the claiming instructions that claimants will be better equipped to correctly claim reimbursement, resulting in fewer reductions upon audit and fewer incorrect reduction claims.

Sincerely,

Heather Halsey
Executive Director

J:\MANDATES\2009\TC\09-TC-03 SARWQCB Order No. R8-2009-0030\Correspondence\Decision and Ps and Gs trans.docx

BEFORE THE

COMMISSION ON STATE MANDATES

STATE OF CALIFORNIA

IN RE PARAMETERS AND GUIDELINES California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2009-0030, Sections XI.4, XIII.1, XIII.4, XIII.7, XVIII.B.8, and XVIII.B.9, Adopted May 22, 2009 Period of reimbursement from June 1, 2009, through December 31, 2017	Case No.: 09-TC-03 *California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2009-0030, Sections XI.4, XIII.1, XIII.4, XIII.7, XVIII.B.8, and XVIII.B.9, Adopted May 22, 2009* DECISION PURSUANT TO GOVERNMENT CODE SECTION 17500 ET SEQ.; CALIFORNIA CODE OF REGULATIONS, TITLE 2, DIVISION 2, CHAPTER 2.5, ARTICLE 7. (*Adopted September 22, 2023*) (*Served September 28, 2023*)

PARAMETERS AND GUIDELINES

The Commission on State Mandates adopted the attached Decision and Parameters and Guidelines on September 22, 2023.

Heather Halsey, Executive Director

BEFORE THE

COMMISSION ON STATE MANDATES

STATE OF CALIFORNIA

IN RE PARAMETERS AND GUIDELINES *California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2009-0030, Sections XI.4, XIII.1, XIII.4, XIII.7, XVIII.B.8, and XVIII.B.9, Adopted May 22, 2009* Period of reimbursement from June 1, 2009, through December 31, 2017	Case No.: 09-TC-03 *California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2009-0030, Sections XI.4, XIII.1, XIII.4, XIII.7, XVIII.B.8, and XVIII.B.9, Adopted May 22, 2009* DECISION PURSUANT TO GOVERNMENT CODE SECTION 17500 ET SEQ.; CALIFORNIA CODE OF REGULATIONS, TITLE 2, DIVISION 2, CHAPTER 2.5, ARTICLE 7. (*Adopted September 22, 2023*) (*Served September 28, 2023*)

DECISION

The Commission on State Mandates (Commission) heard and decided the Decision and Parameters and Guidelines during a regularly scheduled hearing on September 22, 2023. David Burhenn appeared for the claimants. Donna Ferebee appeared for the Department of Finance.

The law applicable to the Commission's determination of a reimbursable state-mandated program is article XIII B, section 6 of the California Constitution, Government Code sections 17500 et seq., and related case law.

The Commission adopted the Decision and Parameters and Guidelines by a vote of 5-0, as follows:

Member	**Vote**
Lee Adams, County Supervisor	Yes
Regina Evans, Representative of the State Controller, Vice Chairperson	Absent
Jennifer Holman, Representative of the Director of the Office of Planning and Research	Yes
Gayle Miller, Representative of the Director of the Department of Finance, Chairperson	Yes
Renee Nash, School District Board Member	Absent
Sarah Olsen, Public Member	Yes

Member	Vote
Spencer Walker, Representative of the State Treasurer	Yes

I. Summary of the Mandate

These Parameters and Guidelines address state-mandated activities arising from NPDES Order No. R8-2009-0030, adopted by the Santa Ana Regional Water Quality Control Board on May 22, 2009.

On March 24, 2023, the Commission on State Mandates (Commission) adopted its Decision finding that the test claim permit imposes a reimbursable state-mandated program upon local agencies within the meaning of article XIII B, section 6 of the California Constitution and Government Code section 17514 from June 1, 2009, through December 31, 2017 only. The Commission partially approved this test claim for the following reimbursable activities only:

- Submit a proposed Cooperative Watershed Program that will fulfill applicable requirements of the selenium TMDL implementation plan within 24 months of adoption of the test claim permit, or one month after approval of the Regional Board selenium TMDLs by OAL, whichever is later. (Order No. R8-2009-0030, Section XVIII.B.8.)
- Develop a "constituent-specific source control plan" for copper, lead, and zinc, including a monitoring program, to ensure compliance" with WLAs for dry and wet weather runoff, which were derived from the 2007 San Gabriel River Metals TMDL jointly developed by the Los Angeles Water Board and U.S. EPA. (Order No. R8-2009-0030, Section XVIII.B.9.)
- Public education program:
    - By July 1, 2012, the one-time activity to complete a public awareness survey to determine the effectiveness of the current public and business education strategy, and to include the findings of the survey and any proposed changes to the current program in the annual report for 2011-2012. (Order No. R8-2009-0030, Section XIII.1.)
    - Permittees shall administer individual or regional workshops for each of the specified sectors (manufacturing facilities; mobile service industry; commercial, distribution, and retail sales industry; residential/commercial landscape construction and service industry; residential and commercial construction industry; and residential and community activities) by July 1, 2010 and annually thereafter. (Order No. R8-2009-0030, Section XIII.4.)
    - The principal permittee, in collaboration with the co-permittees, shall develop and implement a mechanism for public participation in the updating and implementation of DAMPs, WQMP guidance, and Fact Sheets for "various activities." The public shall be informed of the availability of these documents

through public notices in local newspapers, County or city websites, local libraries, city halls, or courthouses. (Order No. R8-2009-0030, Section XIII.7.)

- Within 18 months of adoption, develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies. (Order No. R8-2009-0030, Section XI.4.)

Reimbursement for these activities is denied beginning January 1, 2018, because the claimants have fee authority sufficient as a matter of law to cover the costs of these activities pursuant to Government Code section 17556(d) and, thus, there are no costs mandated by the state.

In addition, reimbursement for these mandated activities from any source, including but not limited to, state and federal funds, any service charge, fee, or assessment authority to offset all or part of the costs of this program, and any other funds that are not the claimant's proceeds of taxes, shall be identified and deducted from any claim submitted for reimbursement.

All other sections, activities, and costs pled in the Test Claim were denied.[1]

II. Procedural History

On March 24, 2023, the Commission adopted the Test Claim Decision.[2] On March 24, 2023, the Commission issued the Draft Expedited Parameters and Guidelines.[3] On April 14, 2023, the claimants filed comments on the Draft Expedited Parameters and Guidelines requesting changes to Sections IV. and VII.[4] Commission staff issued the Draft Proposed Decision and Parameters and Guidelines on May 18, 2023.[5] No comments were filed on the Draft Proposed Decision and Parameters and Guidelines.

III. Party Positions

A. Claimants' Position

The claimants filed comments on the Draft Expedited Parameters and Guidelines, requesting that the boilerplate language in Section IV. of the Parameters and Guidelines, which require that actual costs claimed be supported by contemporaneous source documents, be amended to specifically reference accounting records and emails

[1] Exhibit A, Test Claim Decision, adopted March 24, 2023, pages 246-247.

[2] Exhibit A, Test Claim Decision, adopted March 24, 2023.

[3] Exhibit B, Draft Expedited Parameters and Guidelines, issued March 24, 2023.

[4] Exhibit C, Claimants' Comments on the Draft Expedited Parameters and Guidelines, filed April 14, 2023.

[5] Exhibit D, Draft Proposed Decision and Parameters and Guidelines, issued May 18, 2023.

as additional examples of "source documents" that can be used to support the existence of an "actual cost."[6]

The claimants also request that the share of cost funds received by the County as the principal permittee from the city permittees under their cost sharing agreement not be identified as offsetting revenues, and that the County should be able to claim all costs jointly funded by all permittees, proposing the following additional language to Section VII. Offsetting Revenues and Reimbursements:

> However, with respect to reimbursement claims filed by the County of Orange, any portions thereof reflecting funds received from the County's co-permittees under the Test Claim Permit, pursuant to cost-share arrangements in their stormwater program Implementation Agreement, shall not be deemed offsetting revenues or reimbursements. The County of Orange, on behalf of itself and the other claimants (e.g., Test Claim Permit co-permittees) may claim costs jointly funded by the County and the other claimants through their Implementation Agreement. In such a case, any funds received by the County of Orange on behalf of any other claimant should be paid or credited to the other claimant.[7]

No other comments were received.

IV. Discussion

The Parameters and Guidelines contain the following information:

A. Eligible Claimants (Section II. of the Parameters and Guidelines)

The following permittees are required to comply with Order No. R8-2009-0030 and are eligible to claim reimbursement, provided they are subject to the taxing restrictions of articles XIII A and XIII C of the California Constitution, and the spending limits of article XIII B of the California Constitution, and incur increased costs as a result of this mandate that are paid from their local proceeds of taxes:

> The County of Orange, Orange County Flood Control District (OCFCD) and the incorporated cities of Anaheim, Brea, Buena Park, Costa Mesa, Cypress, Fountain Valley, Fullerton, Garden Grove, Huntington Beach, Irvine, Laguna Hills, Laguna Woods, La Habra, La Palma, Lake Forest, Los Alamitos, Newport Beach, Orange, Placentia, Santa Ana, Seal Beach, Stanton, Tustin, Villa Park, Westminster, and Yorba Linda.[8]

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[6] Exhibit C, Claimants' Comments on the Draft Expedited Parameters and Guidelines, filed April 14, 2023, pages 1-2.

[7] Exhibit C, Claimants' Comments on the Draft Expedited Parameters and Guidelines, filed April 14, 2023, page 2.

[8] Exhibit A, Test Claim Decision, adopted March 24, 2023, page 3.

B. Period of Reimbursement (Section III. of the Parameters and Guidelines)

Government Code section 17557(e) states that a test claim shall be submitted on or before June 30 following a given fiscal year to establish eligibility for that fiscal year. The claimant filed the test claim on June 30, 2010, establishing eligibility for reimbursement for the 2008-2009 fiscal year. However, the test claim permit has a later effective date and therefore the period of reimbursement for this program begins on the permit's effective date, June 1, 2009. Beginning January 1, 2018, there are no costs mandated by the state because the claimants have fee authority sufficient as a matter of law to cover the costs of these activities pursuant to Government Code section 17556(d). Therefore, costs incurred are reimbursable from June 1, 2009, through December 31, 2017.

C. Reimbursable Activities (Section IV. of the Parameters and Guidelines)

The Commission partially approved the Test Claim, authorizing reimbursement for the following mandated activities from June 1, 2009 through December 31, 2017:

- Submit a proposed Cooperative Watershed Program that will fulfill applicable requirements of the selenium TMDL implementation plan within 24 months of adoption of the test claim permit, or one month after approval of the Regional Board selenium TMDLs by OAL, whichever is later. (Order No. R8-2009-0030, Section XVIII.B.8.)
- Develop a "constituent-specific source control plan" for copper, lead, and zinc, including a monitoring program, to ensure compliance" with WLAs for dry and wet weather runoff, which were derived from the 2007 San Gabriel River Metals TMDL jointly developed by the Los Angeles Water Board and U.S. EPA. (Order No. R8-2009-0030, Section XVIII.B.9.)
- Public education program:
    - By July 1, 2012, the one-time activity to complete a public awareness survey to determine the effectiveness of the current public and business education strategy, and to include the findings of the survey and any proposed changes to the current program in the annual report for 2011-2012. (Order No. R8-2009-0030, Section XIII.1.)
    - Permittees shall administer individual or regional workshops for each of the specified sectors (manufacturing facilities; mobile service industry; commercial, distribution, and retail sales industry; residential/commercial landscape construction and service industry; residential and commercial construction industry; and residential and community activities) by July 1, 2010 and annually thereafter. (Order No. R8-2009-0030, Section XIII.4.)
    - The principal permittee, in collaboration with the co-permittees, shall develop and implement a mechanism for public participation in the updating and implementation of DAMPs, WQMP guidance, and Fact Sheets for "various activities." The public shall be informed of the availability of these documents

through public notices in local newspapers, County or city websites, local libraries, city halls, or courthouses. (Order No. R8-2009-0030, Section XIII.7.)

- Within 18 months of adoption, develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies. (Order No. R8-2009-0030, Section XI.4.)

These activities are identified in the Parameters and Guidelines.

The claimants also request that the boilerplate language in Section IV. of the Parameters and Guidelines, which require that actual costs claimed be supported by contemporaneous source documents, be amended to specifically reference accounting records and emails as additional examples of "source documents" that can be used to support the existence of an "actual cost," as follows (proposed changes in strikeout and underline):

> To be eligible for mandated cost reimbursement for any fiscal year, only actual costs may be claimed. Actual costs are those costs actually incurred to implement the mandated activities. Actual costs must be traceable and supported by source documents that show the validity of such costs, when they were incurred, and their relationship to the reimbursable activities. A source document is a document created at or near the same time the actual cost was incurred for the event, or activity in question, including electronic records (such as emails or accounting records). Source documents may include, but are not limited to, employee time records or time logs, sign-in sheets, invoices, ~~and~~ receipts, accounting records generated in a claimants' normal course of business (including, but not limited to, general ledger details) and/or emails evidencing work being performed or completed, among other potential records.
>
> Evidence corroborating the source documents may include, but is not limited to, worksheets, cost allocation reports (system generated), purchase orders, contracts, agendas, training packets, and declarations. Declarations must include a certification or declaration stating, "I certify (or declare) under penalty of perjury under the laws of the State of California that the foregoing is true and correct," and must further comply with the requirements of Code of Civil Procedure section 2015.5. Evidence corroborating the source documents may include data relevant to the reimbursable activities otherwise in compliance with local, state, and federal government requirements. However, corroborating documents cannot be substituted for source documents.[9]

[9] Exhibit C, Claimants' Comments on the Draft Expedited Parameters and Guidelines, filed April 14, 2023, pages 1-2.

The boilerplate language was developed in 2003 with the Controller's Office and interested parties and persons, after the Bureau of State Audits recommended and the Legislature enacted Statutes 2002, chapter 1167 (AB 2781) to direct the Commission to amend the parameters and guidelines in the *School Bus Safety II* program to detail the documentation necessary to support reimbursement claims. The boilerplate language has generally remained the same since 2003.[10]

The Commission denies the claimants' request. The *non-exclusive* list of possible documents identified in the boilerplate language are examples of the types of documents considered source documents and those considered corroborating evidence that might be maintained by a claimant. Therefore, additional examples are not necessary. Moreover, the documentation maintained to support a reimbursement claim will vary depending on the program, the mandated activities, and the claimant. The documentation is subject to the Controller's review and audit to determine whether the documentation supports the actual costs claimed. Accordingly, the request is denied.

D. Claim Preparation and Submission (Section V. of the Parameters and Guidelines)

Section V. of the Parameters and Guidelines (Claim Preparation and Submission) identifies the direct costs that are eligible for reimbursement.

E. Offsetting Revenues and Reimbursements (Section VII. of the Parameters and Guidelines

Section VII. of the Parameters and Guidelines governs offsetting revenues (i.e., funds that are not a claimant's proceeds of taxes), which are required to be identified and deducted from the costs claimed.

In the Test Claim Decision, the Commission determined that the County of Orange is the principal permittee under the test claim permit, and to the extent the County receives funds from other sources, including from fees, grant funding, and from the other copermittees under a cost-sharing agreement, those funds are *not* the County's proceeds of taxes.

> The County of Orange, in a declaration signed by the Chief of the Orange County Stormwater Program, further states that "in addition to its General Fund, [the County] had sources other than County funding, including landfill gate fees and special district funding, for certain Permit obligations. To the extent such fees were employed and/or such funds were

[10] See also, *Clovis Unified School Dist. v. John Chiang as State Controller* (2010) 188 Cal.App.4th 794, 802-807 where the Controller revised its claiming instructions in 2003 to include the boilerplate language requiring contemporaneous source documents on older state-mandated programs for fiscal years when the parameters and guidelines did not yet contain the requirement. The court found that since the parameters and guidelines did not contain the requirement for the earlier fiscal years in question, the requirement in the claiming instructions constituted an invalid, underground regulation.

> appropriated for such obligations, they would not be available for other County obligations." [Citation omitted.] In a second declaration filed by Orange County with the Test Claim, it is declared that the County was designated the principal permittee and the County and the City permittees have a cost-sharing agreement for compliance with the test claim permit. [Citation omitted.] To the extent the County receives funds from other sources, including from fees, grant funding, and from the other copermittees under an agreement, those funds are *not* the County's proceeds of taxes. These funds received by the County are not taxes levied by or for the County, and are not counted against the County's appropriations limit.[11]

The Commission also recognized that "the claimants have a number of different revenue streams with which to fund stormwater pollution control activities, and the record indicates a mix of different revenues being applied throughout the County to pay for the activities required by the prior permit and the test claim permit."[12] The record also showed that the claimants' reliance on General Fund revenues decreased after the test claim permit was adopted.[13]

Thus, the Commission concluded that "reimbursement for these mandated activities from any source, including but not limited to, state and federal funds, any service charge, fee, or assessment authority to offset all or part of the costs of this program, and any other funds that are not the claimant's proceeds of taxes, shall be identified and deducted from any claim submitted for reimbursement."[14]

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[11] Exhibit A, Test Claim Decision, issued March 24, 2023, pages 197-198, citing to California Constitution, article XIII B, section 8; *Bell Community Redevelopment Agency v. Woosley* (1985) 169 Cal.App.3d 24, 32. See also, *County of Fresno v. State of California* (1991) 53 Cal.3d 482, 487 ("read in its textual and historical context section 6 of article XIII B requires subvention only when the costs in question can be recovered *solely from tax revenues.")*; *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 763 (articles XIII A and XIII B work "in tandem," for the purpose of precluding "the state from shifting financial responsibility for carrying out governmental functions to local agencies, which are 'ill equipped' to assume increased financial responsibilities *because of the taxing and spending limitations that articles XIII A and XIII B impose*."); and *County of Sonoma v. Commission on State Mandates* (2000) 84 Cal.App.4th 1264, 1283; *County of Los Angeles v. Commission on State Mandates* (2003) 110 Cal.App.4th 1176, 1185 (reimbursement under article XIII B, section 6 is only required when a mandated new program or higher level of service forces local government to incur "*increased actual expenditures of limited tax proceeds that are counted against the local government's spending limit*.").

[12] Exhibit A, Test Claim Decision, adopted March 24, 2023, page 198.

[13] Exhibit A, Test Claim Decision, adopted March 24, 2023, page 202.

[14] Exhibit A, Test Claim Decision, adopted March 24, 2023, page 247.

This language was included in Section VII. of the Draft Expedited Parameters and Guidelines.[15] The claimants now request the following additional language (in underline) be added to Section VII.:

> Any offsetting revenue the claimant experiences in the same program as a result of the same statutes or executive orders found to contain the mandate shall be deducted from the costs claimed. In addition, reimbursement for this mandate from any source, including but not limited to, state and federal funds, any service charge, fee, or assessment authority to offset all or part of the costs of this program, and any other funds that are not the claimant's proceeds of taxes shall be identified and deducted from any claim submitted for reimbursement. However, with respect to reimbursement claims filed by the County of Orange, any portions thereof reflecting funds received from the County's co-permittees under the Test Claim Permit, pursuant to cost-share arrangements in their stormwater program Implementation Agreement, shall not be deemed offsetting revenues or reimbursements. The County of Orange, on behalf of itself and the other claimants (e.g., Test Claim Permit co-permittees) may claim costs jointly funded by the County and the other claimants through their Implementation Agreement. In such a case, any funds received by the County of Orange on behalf of any other claimant should be paid or credited to the other claimant.[16]

The claimants explain that the County, as the principal permittee,

> . . . is charged with responsibility for overall program management, including the submission of unified reports, plans and programs required by the permit. Permit, Section I.A. The County coordinates permit activities, including implementation of areawide activities such as public education, and pollution prevention. Permit, Section I.B. The co-permittees participate on a Management Committee, but the County is charged with taking the lead in initiating and developing areawide programs and activities required by the Permit. Permit, Section II.B.1.[17]

The claimants also state that their request

> . . . is simply to reflect the County's role as Principal Permittee and the funding mechanism for shared costs set forth in the Implementation Agreement. For those activities for which the County has taken the lead,

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[15] Exhibit B, Draft Expedited Parameters and Guidelines, issued March 24, 2023, page 11.

[16] Exhibit C, Claimants' Comments on the Draft Expedited Parameters and Guidelines, filed April 14, 2023, page 2.

[17] Exhibit C, Claimants' Comments on the Draft Expedited Parameters and Guidelines, filed April 14, 2023, page 3.

> the County, rather than the other claimants, is the party that has the source documents required to support the claim. With this modification, the County, having collected and used funds from the other claimants for the development and implementation of these activities, could then file a claim on behalf of itself and the other claimants for those costs and then reimburse or credit the other claimants their respective share of the reimbursement.[18]

The Commission denies the claimants' request. First, the proposed language in the first sentence ("with respect to reimbursement claims filed by the County of Orange, any portions thereof reflecting funds received from the County's co-permittees under the Test Claim Permit, pursuant to cost-share arrangements in their stormwater program Implementation Agreement, shall not be deemed offsetting revenues or reimbursements"), conflicts with the Commission's Test Claim Decision. As stated above, the Commission found that funds received by the County "from the other copermittees under an agreement . . . are *not* the County's proceeds of taxes" and cannot be claimed by the County.[19] Commission decisions on test claims, including the Decision issued in this case, are binding, unless set aside by the courts.[20]

In addition, the claimants' proposed second sentence ("The County of Orange, on behalf of itself and the other claimants (e.g., Test Claim Permit co-permittees) may claim costs jointly funded by the County and the other claimants through their Implementation Agreement. In such a case, any funds received by the County of Orange on behalf of any other claimant should be paid or credited to the other claimant"), conflicts with the mandates process in the Government Code. Except for schools, direct service districts, or special districts whose costs may not reach the minimum $1,000, the Government Code requires each eligible claimant to file its own reimbursement claim and does not allow one local agency to file a combined claim for the costs incurred by other eligible local agencies. Government Code 17564 states the following:

> (a) No claim shall be made pursuant to Sections 17551, 17561, or 17573, nor shall any payment be made on claims submitted pursuant to Sections 17551 or 17561, or pursuant to a legislative determination under Section 17573, unless these claims exceed one thousand dollars ($1,000). *However, a county superintendent of schools or county may submit a combined claim on behalf of school districts, direct service districts, or special districts within their county if the combined claim exceeds one thousand dollars ($1,000) even if the individual school district's, direct*

[18] Exhibit C, Claimants' Comments on the Draft Expedited Parameters and Guidelines, filed April 14, 2023, page 3.

[19] Exhibit A, Test Claim Decision, adopted March 24, 2023, pages 197-198.

[20] Government Code section 17559; *California School Boards Assoc. v. State of California* (2009) 171 Cal.App.4th 1183, 1200-1201.

> *service district's, or special district's claims do not each exceed one thousand dollars ($1,000).* The county superintendent of schools or the county shall determine if the submission of the combined claim is economically feasible and shall be responsible for disbursing the funds to each school, direct service, or special district. *These combined claims may be filed only when the county superintendent of schools or the county is the fiscal agent for the districts.* All subsequent claims based upon the same mandate shall only be filed in the combined form unless a school district, direct service district, or special district provides to the county superintendent of schools or county and to the Controller, at least 180 days prior to the deadline for filing the claim, a written notice of its intent to file a separate claim.
>
> (b) Claims for direct and indirect costs filed pursuant to Section 17561 shall be filed in the manner prescribed in the parameters and guidelines or reasonable reimbursement methodology and claiming instructions. (Emphasis added.)

Additionally, Government Code section 17561(d)(1)(A) then states that "When claiming instructions are issued by the Controller pursuant to Section 17558 for each mandate determined pursuant to Section 17551 or 17573 that requires state reimbursement, *each* local agency or school district to which the mandate is applicable shall submit claims for initial fiscal year costs to the Controller within 120 days of the issuance date for the claiming instructions." (Emphasis added.) Government Code section 17560(a) provides that "*A local agency or school district* may, by February 15 following the fiscal year in which costs are incurred, file an annual reimbursement claim that details the costs actually incurred for that fiscal year." (Emphasis added.) Thus, each agency is required to submit their own claim for their initial and annual costs.

In addition, Section V. of the Parameters and Guidelines clarifies that contracted services provided to comply with the state-mandated duties are direct costs that are eligible for reimbursement by the local agency claimant incurring those costs as follows:

> Report the name of the contractor and services performed to implement the reimbursable activities. If the contractor bills for time and materials, report the number of hours spent on the activities and all costs charged. If the contract is a fixed price, report the services that were performed during the period covered by the reimbursement claim. If the contract services are also used for purposes other than the reimbursable activities, only the pro-rata portion of the services used to implement the reimbursable activities can be claimed. Submit contract consultant and attorney invoices with the claim and a description of the contract scope of services.

Thus, any share of costs paid by an eligible city to the principal permittee under the permittees' implementation agreement to comply with the state-mandated activities may be claimed by the city pursuant to Government Code section 17561(d)(1)(A) and Section V. of the Parameters and Guidelines. The city is required to identify and deduct from its claim any portion of those funds that are not the city's proceeds of taxes.

Likewise, the County is authorized to claim only for its own costs incurred to comply with the mandated activities, may not claim the cities' costs, and must identify and deduct as offsetting revenues any funds received for its own state-mandated expenses that are *not* the County's proceeds of taxes. This language has been added to Section VII. for clarification.

F. The Remaining Sections of the Parameters and Guidelines

The remaining sections of the Parameters and Guidelines contain standard boilerplate language.

V. Conclusion

Based on the foregoing, the Commission hereby adopts the Proposed Decision and Parameters and Guidelines.

PARAMETERS AND GUIDELINES[21]

California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2009-0030, Sections XI.4, XIII.1, XIII.4, XIII.7, XVIII.B.8, and XVIII.B.9, Adopted May 22, 2009

09-TC-03

Period of reimbursement from June 1, 2009, through December 31, 2017

I. SUMMARY OF THE MANDATE

These Parameters and Guidelines address state-mandated activities arising from NPDES Order No. R8-2009-0030, adopted by the Santa Ana Regional Water Quality Control Board on May 22, 2009.

On March 24, 2023, the Commission on State Mandates (Commission) adopted its Decision finding that the test claim permit imposes a reimbursable state-mandated program upon local agencies within the meaning of article XIII B, section 6 of the California Constitution and Government Code section 17514 from June 1, 2009, through December 31, 2017 only. The Commission partially approved this test claim for the following reimbursable activities only:

- Submit a proposed Cooperative Watershed Program that will fulfill applicable requirements of the selenium TMDL implementation plan within 24 months of

[21] Please note that the Decision and Parameters and Guidelines is a single document and must be read as a whole. It is not intended to be separated and should be posted in its entirety.

adoption of the test claim permit, or one month after approval of the Regional Board selenium TMDLs by OAL, whichever is later. (Section XVIII.B.8.)[22]

- Develop a "constituent-specific source control plan" for copper, lead, and zinc, including a monitoring program, to ensure compliance" with WLAs for dry and wet weather runoff, which were derived from the 2007 San Gabriel River Metals TMDL jointly developed by the Los Angeles Water Board and U.S. EPA. (Section XVIII.B.9.)[23]
- Public education program:
    - By July 1, 2012, the one-time activity to complete a public awareness survey to determine the effectiveness of the current public and business education strategy, and to include the findings of the survey and any proposed changes to the current program in the annual report for 2011-2012. (Section XIII.1.)[24]
    - Permittees shall administer individual or regional workshops for each of the specified sectors (manufacturing facilities; mobile service industry; commercial, distribution, and retail sales industry; residential/commercial landscape construction and service industry; residential and commercial construction industry; and residential and community activities) by July 1, 2010 and annually thereafter. (Section XIII.4.)[25]
    - The principal permittee, in collaboration with the co-permittees, shall develop and implement a mechanism for public participation in the updating and implementation of DAMPs, WQMP guidance, and Fact Sheets for "various activities." The public shall be informed of the availability of these documents through public notices in local newspapers, County or city websites, local libraries, city halls, or courthouses. (Section XIII.7.)[26]

[22] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 343 [Order No. R8-2009-0030, Section XVIII.B.8].

[23] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 343 [Order No. R8-2009-0030, Section XVIII.B.9].

[24] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 332 [Order No. R8-2009-0030, Section XIII.1].

[25] Exhibit A, Joint Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 332 [Order No. R8-2009-0030, Section XIII.4].

[26] Exhibit A, Joint Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 333 [Order No. R8-2009-0030, Section XIII.7].

- Within 18 months of adoption, develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies. (Section XI.4.)[27]

Reimbursement for these activities is denied beginning January 1, 2018, because the claimants have fee authority sufficient as a matter of law to cover the costs of these activities pursuant to Government Code section 17556(d) and, thus, there are no costs mandated by the state.

In addition, reimbursement for these mandated activities from any source, including but not limited to, state and federal funds, any service charge, fee, or assessment authority to offset all or part of the costs of this program, and any other funds that are not the claimant's proceeds of taxes, shall be identified and deducted from any claim submitted for reimbursement.

All other sections, activities, and costs pled in the Test Claim were denied.

II. ELIGIBLE CLAIMANTS

The following permittees are required to comply with Order No. R8-2009-0030 and are eligible to claim reimbursement, provided they are subject to the taxing restrictions of articles XIII A and XIII C of the California Constitution, and the spending limits of article XIII B of the California Constitution, and incur increased costs as a result of this mandate that are paid from their local proceeds of taxes:

The County of Orange, Orange County Flood Control District (OCFCD) and the incorporated cities of Anaheim, Brea, Buena Park, Costa Mesa, Cypress, Fountain Valley, Fullerton, Garden Grove, Huntington Beach, Irvine, Laguna Hills, Laguna Woods, La Habra, La Palma, Lake Forest, Los Alamitos, Newport Beach, Orange, Placentia, Santa Ana, Seal Beach, Stanton, Tustin, Villa Park, Westminster, and Yorba Linda.[28]

III. PERIOD OF REIMBURSEMENT

Government Code section 17557(e) states that a test claim shall be submitted on or before June 30 following a given fiscal year to establish eligibility for that fiscal year. The claimant filed the test claim on June 30, 2010, establishing eligibility for reimbursement for the 2008-2009 fiscal year. However, the test claim permit has a later effective date and therefore the period of reimbursement for this program begins on the permit's effective date, June 1, 2009. Beginning January 1, 2018, there are no costs mandated by the state because the claimants have fee authority sufficient as a matter of law to cover the costs of these activities pursuant to Government Code section 17556(d). Therefore, costs incurred are reimbursable from June 1, 2009, through December 31, 2017.

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[27] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 316-317 [Order No. R8-2009-0030, Section XI.4].

[28] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 273 [Order No. R8-2009-0030, Finding B].

Reimbursement for state-mandated costs may be claimed as follows:

1. Actual costs for one fiscal year shall be included in each claim.
2. Pursuant to Government Code section 17561(d)(1)(A), all claims for reimbursement of initial fiscal year costs shall be submitted to the State Controller (Controller) within 120 days of the issuance date for the claiming instructions.
3. Pursuant to Government Code section 17560(a), a local agency may, by February 15 following the fiscal year in which costs were incurred, file an annual reimbursement claim that details the costs actually incurred for that fiscal year.
4. If revised claiming instructions are issued by the Controller pursuant to Government Code section 17558(c), between November 15 and February 15, a local agency filing an annual reimbursement claim shall have 120 days following the issuance date of the revised claiming instructions to file a claim. (Gov. Code §17560(b).)
5. If the total costs for a given fiscal year do not exceed $1,000, no reimbursement shall be allowed except as otherwise allowed by Government Code section 17564(a).
6. There shall be no reimbursement for any period in which the Legislature has suspended the operation of a mandate pursuant to state law.

IV. REIMBURSABLE ACTIVITIES

To be eligible for mandated cost reimbursement for any fiscal year, only actual costs may be claimed. Actual costs are those costs actually incurred to implement the mandated activities. Actual costs must be traceable and supported by source documents that show the validity of such costs, when they were incurred, and their relationship to the reimbursable activities. A source document is a document created at or near the same time the actual cost was incurred for the event, or activity in question. Source documents may include, but are not limited to, employee time records or time logs, sign-in sheets, invoices, and receipts.

Evidence corroborating the source documents may include, but is not limited to, worksheets, cost allocation reports (system generated), purchase orders, contracts, agendas, training packets, and declarations. Declarations must include a certification or declaration stating, “I certify (or declare) under penalty of perjury under the laws of the State of California that the foregoing is true and correct,” and must further comply with the requirements of Code of Civil Procedure section 2015.5. Evidence corroborating the source documents may include data relevant to the reimbursable activities otherwise in compliance with local, state, and federal government requirements. However, corroborating documents cannot be substituted for source documents.

The claimant is only allowed to claim and be reimbursed for increased costs for reimbursable activities identified below. Increased cost is limited to the cost of an activity that the claimant is required to incur as a result of the mandate.

For each eligible claimant that incurs increased costs, the following activities are reimbursable:

A. Submit a proposed Cooperative Watershed Program that will fulfill applicable requirements of the selenium TMDL implementation plan within 24 months of adoption of the test claim permit, or one month after approval of the Regional Board selenium TMDLs by OAL, whichever is later. (Order No. R8-2009-0030, Section XVIII.B.8.)

B. Develop a "constituent-specific source control plan" for copper, lead, and zinc, including a monitoring program, to ensure compliance" with WLAs for dry and wet weather runoff, which were derived from the 2007 San Gabriel River Metals TMDL jointly developed by the Los Angeles Water Board and U.S. EPA. (Order No. R8-2009-0030, Section XVIII.B.9.)

C. Public education program:

   1. By July 1, 2012, the one-time activity to complete a public awareness survey to determine the effectiveness of the current public and business education strategy, and to include the findings of the survey and any proposed changes to the current program in the annual report for 2011-2012. (Order No. R8-2009-0030, Section XIII.1.)

   2. Permittees shall administer individual or regional workshops for each of the specified sectors (manufacturing facilities; mobile service industry; commercial, distribution, and retail sales industry; residential/commercial landscape construction and service industry; residential and commercial construction industry; and residential and community activities) by July 1, 2010 and annually thereafter. (Order No. R8-2009-0030, Section XIII.4.)

   3. The principal permittee, in collaboration with the co-permittees, shall develop and implement a mechanism for public participation in the updating and implementation of DAMPs, WQMP guidance, and Fact Sheets for "various activities." The public shall be informed of the availability of these documents through public notices in local newspapers, County or city websites, local libraries, city halls, or courthouses. (Order No. R8-2009-0030, Section XIII.7.)

D. Within 18 months of adoption, develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies. (Order No. R8-2009-0030, Section XI.4.)

V. CLAIM PREPARATION AND SUBMISSION

Each of the following cost elements must be identified for each reimbursable activity identified in Section IV., Reimbursable Activities, of this document. Each claimed reimbursable cost must be supported by source documentation as described in Section IV. Additionally, each reimbursement claim must be filed in a timely manner.

A. Direct Cost Reporting

Direct costs are those costs incurred specifically for the reimbursable activities. The following direct costs are eligible for reimbursement.

1. Salaries and Benefits

Report each employee implementing the reimbursable activities by name, job classification, and productive hourly rate (total wages and related benefits divided by productive hours). Describe the specific reimbursable activities performed and the hours devoted to each reimbursable activity performed.

2. Materials and Supplies

Report the cost of materials and supplies that have been consumed or expended for the purpose of the reimbursable activities. Purchases shall be claimed at the actual price after deducting discounts, rebates, and allowances received by the claimant. Supplies that are withdrawn from inventory shall be charged on an appropriate and recognized method of costing, consistently applied.

3. Contracted Services

Report the name of the contractor and services performed to implement the reimbursable activities. If the contractor bills for time and materials, report the number of hours spent on the activities and all costs charged. If the contract is a fixed price, report the services that were performed during the period covered by the reimbursement claim. If the contract services are also used for purposes other than the reimbursable activities, only the pro-rata portion of the services used to implement the reimbursable activities can be claimed. Submit contract consultant and attorney invoices with the claim and a description of the contract scope of services.

4. Fixed Assets

Report the purchase price paid for fixed assets (including computers) necessary to implement the reimbursable activities. The purchase price includes taxes, delivery costs, and installation costs. If the fixed asset is also used for purposes other than the reimbursable activities, only the pro-rata portion of the purchase price used to implement the reimbursable activities can be claimed.

B. Indirect Cost Rates

Indirect costs are costs that are incurred for a common or joint purpose, benefiting more than one program, and are not directly assignable to a particular department or program without efforts disproportionate to the result achieved. Indirect costs may include both: (1) overhead costs of the unit performing the mandate; and (2) the costs of the central government services distributed to the other departments based on a systematic and rational basis through a cost allocation plan.

Compensation for indirect costs is eligible for reimbursement in accordance with the Office of Management and Budget Circular 2 CFR, Chapter I and Chapter II, Part 200 et al.

Claimants have the option of using 10 percent of direct labor, excluding fringe benefits, or preparing an Indirect Cost Rate Proposal (ICRP) if the indirect cost rate claimed exceeds 10 percent.

If the claimant chooses to prepare an ICRP, both the direct costs (as defined and described in 2 CFR, Chapter I and Chapter II, Part 200 et al.) and the indirect costs shall exclude capital expenditures and unallowable costs (as defined and described in 2 CFR, Chapter I and Chapter II, Part 200 et al.). However, unallowable costs must be included in the direct costs if they represent activities to which indirect costs are properly allocable.

The distribution base may be: (1) total direct costs (excluding capital expenditures and other distorting items, such as pass-through funds, major subcontracts, etc.); (2) direct salaries and wages; or (3) another base which results in an equitable distribution.

In calculating an ICRP, the claimant shall have the choice of one of the following methodologies:

1. The allocation of allowable indirect costs (as defined and described in 2 CFR, Chapter I and Chapter II, Part 200 et al.) shall be accomplished by: (1) classifying a department's total costs for the base period as either direct or indirect; and (2) dividing the total allowable indirect costs (net of applicable credits) by an equitable distribution base. The result of this process is an indirect cost rate which is used to distribute indirect costs to mandates. The rate should be expressed as a percentage that the total amount of allowable indirect costs bears to the base selected; or
2. The allocation of allowable indirect costs (as defined and described in 2 CFR, Chapter I and Chapter II, Part 200 et al.) shall be accomplished by: (1) separating a department into groups, such as divisions or sections, and then classifying the division's or section's total costs for the base period as either direct or indirect; and (2) dividing the total allowable indirect costs (net of applicable credits) by an equitable distribution base. The result of this process is an indirect cost rate that is used to distribute indirect costs to mandates. The rate should be expressed as a percentage which the total amount of allowable indirect costs bears to the base selected.

VI. RECORD RETENTION

Pursuant to Government Code section 17558.5(a), a reimbursement claim for actual costs filed pursuant to this chapter[29] is subject to the initiation of an audit by the Controller no later than three years after the date that the actual reimbursement claim is filed or last amended, whichever is later. However, if no funds are appropriated or no payment is made to a claimant for the program for the fiscal year for which the claim is filed, the time for the Controller to initiate an audit shall commence to run from the date of initial payment of the claim. In any case, an audit shall be completed not later than

[29] This refers to title 2, division 4, part 7, chapter 4 of the Government Code.

two years after the date that the audit is commenced. All documents used to support the reimbursable activities, as described in Section IV., must be retained during the period subject to audit. If an audit has been initiated by the Controller during the period subject to audit, the retention period is extended until the ultimate resolution of any audit findings.

VII. OFFSETTING REVENUES AND REIMBURSEMENTS

Any offsetting revenue the claimant experiences in the same program as a result of the same statutes or executive orders found to contain the mandate shall be deducted from the costs claimed. In addition, reimbursement for this mandate from any source, including but not limited to, state and federal funds, any service charge, fee, or assessment authority to offset all or part of the costs of this program, and any other funds that are not the claimant's proceeds of taxes shall be identified and deducted from any claim submitted for reimbursement.

VIII. STATE CONTROLLER'S CLAIMING INSTRUCTIONS

Pursuant to Government Code section 17558(b), the Controller shall issue claiming instructions for each mandate that requires state reimbursement not later than 90 days after receiving the adopted parameters and guidelines from the Commission, to assist local governments in claiming costs to be reimbursed. The claiming instructions shall be derived from these parameters and guidelines and the decisions on the test claim and parameters and guidelines adopted by the Commission.

Pursuant to Government Code section 17561(d)(1), issuance of the claiming instructions shall constitute a notice of the right of the eligible claimants to file reimbursement claims, based upon parameters and guidelines adopted by the Commission.

IX. REMEDIES BEFORE THE COMMISSION

Upon request of an eligible claimant, the Commission shall review the claiming instructions issued by the Controller or any other authorized state agency for reimbursement of mandated costs pursuant to Government Code section 17571. If the Commission determines that the claiming instructions do not conform to the parameters and guidelines, the Commission shall direct the Controller to modify the claiming instructions and the Controller shall modify the claiming instructions to conform to the parameters and guidelines as directed by the Commission.

In addition, requests may be made to amend parameters and guidelines pursuant to Government Code section 17557(d), and California Code of Regulations, title 2, section 1183.17.

X. LEGAL AND FACTUAL BASIS FOR THE PARAMETERS AND GUIDELINES

The decisions adopted for the test claim and parameters and guidelines are legally binding on all parties and interested parties and provide the legal and factual basis for the parameters and guidelines. The support for the legal and factual findings is found in the administrative record. The administrative record is on file with the Commission.

DECLARATION OF SERVICE BY EMAIL

I, the undersigned, declare as follows:

I am a resident of the County of Sacramento and I am over the age of 18 years, and not a party to the within action. My place of employment is 980 Ninth Street, Suite 300, Sacramento, California 95814.

On September 28, 2023, I served the:

- **Current Mailing List dated September 27, 2023**
- **Decision and Parameters and Guidelines adopted September 22, 2023**

  California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2009-0030, Sections XI.4, XIII.1, XIII.4, XIII.7, and, XVIII.B.8, and XVIII.B.9, Adopted May 22, 2009, 09-TC-03
  Santa Ana Regional Water Quality Control Board, Resolution No. R8-2009-0030, adopted May 22, 2009
  County of Orange, Orange County Flood Control District; and the Cities of Anaheim, Brea, Buena Park, Costa Mesa, Cypress, Fountain Valley, Fullerton, Huntington Beach, Irvine, Lake Forest, Newport Beach, Placentia, Seal Beach, and Villa Park, Claimants

By making it available on the Commission's website and providing notice of how to locate it to the email addresses provided on the attached mailing list.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that this declaration was executed on September 28, 2023 at Sacramento, California.

Jill L. Magee
Commission on State Mandates
980 Ninth Street, Suite 300
Sacramento, CA 95814
(916) 323-3562

COMMISSION ON STATE MANDATES

Mailing List

Last Updated: 9/27/23

Claim Number: 09-TC-03

Matter: California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2009-0030, Sections IX, X, XI, XII, XIII, and, XVIII, Adopted May 22, 2009

Claimants: City of Anaheim
City of Brea
City of Buena Park
City of Costa Mesa
City of Cypress
City of Fountain Valley
City of Fullerton
City of Huntington Beach
City of Irvine
City of Lake Forest
City of Newport Beach
City of Placentia
City of Seal Beach
City of Villa Park
County of Orange
Orange County Flood Control District

TO ALL PARTIES, INTERESTED PARTIES, AND INTERESTED PERSONS:

Each commission mailing list is continuously updated as requests are received to include or remove any party or person on the mailing list. A current mailing list is provided with commission correspondence, and a copy of the current mailing list is available upon request at any time. Except as provided otherwise by commission rule, when a party or interested party files any written material with the commission concerning a claim, it shall simultaneously serve a copy of the written material on the parties and interested parties to the claim identified on the mailing list provided by the commission. (Cal. Code Regs., tit. 2, § 1181.3.)

Adaoha Agu, *County of San Diego Auditor & Controller Department*
Projects, Revenue and Grants Accounting, 5530 Overland Avenue, Ste. 410 , MS:O-53, San Diego, CA 92123
Phone: (858) 694-2129
Adaoha.Agu@sdcounty.ca.gov

Rebecca Andrews, Partner, *Best Best & Krieger, LLP*
655 West Broadway, 15th Floor, San Diego, CA 92101
Phone: (619) 525-1300
Rebecca.Andrews@bbklaw.com

Rachelle Anema, Division Chief, *County of Los Angeles*
Accounting Division, 500 W. Temple Street, Los Angeles, CA 90012

Phone: (213) 974-8321
RANEMA@auditor.lacounty.gov

Lili Apgar, Specialist, *State Controller's Office*
Local Reimbursements Section, 3301 C Street, Suite 740, Sacramento, CA 95816
Phone: (916) 324-0254
lapgar@sco.ca.gov

Socorro Aquino, *State Controller's Office*
Division of Audits, 3301 C Street, Suite 700, Sacramento, CA 95816
Phone: (916) 322-7522
SAquino@sco.ca.gov

Damien Arrula, City Administrator, *City of Placentia*
Claimant Contact
401 E. Chapman Avenue, Placentia, CA 92870
Phone: (714) 993-8171
darrula@placentia.org

Aaron Avery, Legislative Representative, *California Special Districts Association*
1112 I Street Bridge, Suite 200, Sacramento, CA 95814
Phone: (916) 442-7887
Aarona@csda.net

Ryan Baron, *Best Best & Krieger LLP*
18101 Von Karman Avenue, Suite 1000, Irvine, CA 92612
Phone: (949) 263-2600
ryan.baron@bbklaw.com

Gretchen Beatty, Acting City Manager, *City of Fullerton*
Claimant Contact
303 W. Commonwealth Ave, Fullerton, CA 92832
Phone: (714) 738-6310
citymanager@cityoffullerton.com

Baron Bettenhausen, Deputy City Attorney, *Jones & Mayer Law Firm*
3777 N. Harbor Blvd, Fullerton, CA 92835
Phone: (714) 446-1400
bjb@jones-mayer.com

Cindy Black, City Clerk, *City of St. Helena*
1480 Main Street, St. Helena, CA 94574
Phone: (707) 968-2742
ctzafopoulos@cityofsthelena.org

Lisa Bond, *Richards,Watson & Gershon,LLP*
355 South Grand Avenue, 40th Floor, Los Angeles, CA 90071-3101
Phone: (213) 626-8484
lbond@rwglaw.com

Katharine Bramble, Attorney, *State Water Resources Control Board*
Santa Ana Regional Water Quality Control Board, 1001 I Street, 22nd Floor, Sacramento, CA 95814
Phone: (916) 440-7769
Katharine.Bramble@waterboards.ca.gov

Guy Burdick, Consultant, *MGT Consulting*
2251 Harvard Street, Suite 134, Sacramento, CA 95815

Phone: (916) 833-7775
gburdick@mgtconsulting.com

Allan Burdick,
7525 Myrtle Vista Avenue, Sacramento, CA 95831
Phone: (916) 203-3608
allanburdick@gmail.com

David Burhenn, *Burhenn & Gest, LLP*
Claimant Representative
12401 Wilshire Blvd, Suite 200, Los Angeles, CA 90025
Phone: (213) 629-8788
dburhenn@burhenngest.com

Rica Mae Cabigas, Chief Accountant, *Auditor-Controller*
Accounting Division, 500 West Temple Street, Los Angeles, CA 90012
Phone: (213) 974-8309
rcabigas@auditor.lacounty.gov

Evelyn Calderon-Yee, Bureau Chief, *State Controller's Office*
Local Government Programs and Services Division, Bureau of Payments, 3301 C Street, Suite 740, Sacramento, CA 95816
Phone: (916) 324-5919
ECalderonYee@sco.ca.gov

Teresa Calvert, Program Budget Manager, *Department of Finance*
915 L Street, 8th Floor, Sacramento, CA 95814
Phone: (916) 322-2263
Teresa.Calvert@dof.ca.gov

Sheri Chapman, General Counsel, *League of California Cities*
1400 K Street, Suite 400, Sacramento, CA 95814
Phone: (916) 658-8267
schapman@calcities.org

Oliver Chi, City Manager, *City of Irvine*
Claimant Contact
One Civic Center Plaza, Irvine, CA 92623-9575
Phone: (949) 724-6246
OChi@cityofirvine.org

Annette Chinn, *Cost Recovery Systems, Inc.*
705-2 East Bidwell Street, #294, Folsom, CA 95630
Phone: (916) 939-7901
achinncrs@aol.com

Carolyn Chu, Senior Fiscal and Policy Analyst, *Legislative Analyst's Office*
925 L Street, Suite 1000, Sacramento, CA 95814
Phone: (916) 319-8326
Carolyn.Chu@lao.ca.gov

Michael Coleman, *Coleman Advisory Services*
2217 Isle Royale Lane, Davis, CA 95616
Phone: (530) 758-3952
coleman@muni1.com

Kris Cook, Assistant Program Budget Manager, *Department of Finance*
915 L Street, 10th Floor, Sacramento, CA 95814

Phone: (916) 445-3274
Kris.Cook@dof.ca.gov

Tim Corbett, Deputy Director of Public Works, *County of Orange*
Public Works, 2301 North Glassell Street, Orange, CA 92865
Phone: (714) 955-0630
tim.corbett@ocpw.ocgov.com

Brian Cote, Senior Government Finance & Administration Analyst, *California State Association of Counties (CSAC)*
1100 K Street, Suite 101, Sacramento, CA 95814
Phone: (916) 650-8184
bcote@counties.org

Thomas Deak, Senior Deputy, *County of San Diego*
Office of County Counsel, 1600 Pacific Highway, Room 355, San Diego, CA 92101
Phone: (619) 531-4810
Thomas.Deak@sdcounty.ca.gov

Kalyn Dean, Senior Legislative Analyst, *California State Association of Counties (CSAC)*
Government Finance and Administration, 1100 K Street, Suite 101, Sacramento, CA 95814
Phone: (916) 327-7500
kdean@counties.org

Douglas Dennington, Attorney, *Rutan & Tucker, LLP*
611 Anton Blvd., Suite 1400, Costa Mesa, CA 92626
Phone: (714) 641-5100
ddennington@rutan.com

Ted Doan, Budget Analyst, *Department of Finance*
Local Government Unit, 915 L Street, Sacramento, CA 95814
Phone: (916) 445-3274
Ted.Doan@dof.ca.gov

Paul Emery, City Manager, *City of Anaheim*
Claimant Contact
200 S. Anaheim Blvd., Suite 733, Anaheim, CA 92805
Phone: (714) 765-5162
pemery@anaheim.net

Donna Ferebee, *Department of Finance*
915 L Street, Suite 1280, Sacramento, CA 95814
Phone: (916) 445-8918
donna.ferebee@dof.ca.gov

Adam Fischer, *Santa Ana Regional Water Quality Control Board*
3737 Main Street, Suite 500, Riverside, CA 92501
Phone: (951) 320-6363
afischer@waterboards.ca.gov

Tim Flanagan, Office Coordinator, *Solano County*
Register of Voters, 678 Texas Street, Suite 2600, Fairfield, CA 94533
Phone: (707) 784-3359
Elections@solanocounty.com

Jennifer Fordyce, Assistant Chief Counsel, *State Water Resources Control Board*
Office of Chief Counsel, 1001 I Street, 22nd floor, Sacramento, CA 95814

Phone: (916) 324-6682
Jennifer.Fordyce@waterboards.ca.gov

Craig Foster, Chief Operating Officer, *Building Industry Legal Defense Foundation*
Building Association of Southern California, 17744 Sky Park Circle, Suite 170, Irvine, Irvin 92614
Phone: (949) 553-9500
cfoster@biasc.org

Aaron France, City Manager, *City of Buena Park*
Claimant Contact
6650 Beach Boulevard, Second Floor, Buena Park, CA 90621
Phone: (714) 562-3550
afrance@buenapark.com

Steve Franks, City Manager, *City of Villa Park*
Claimant Contact
17855 Santiago Blvd, Villa Park, CA 92861
Phone: (714) 998-1500
sfranks@villapark.org

Bill Gallardo, City Manager, *City of Brea*
Claimant Contact
1 Civic Center Circle, Brea, CA 92821
Phone: (714) 990-7710
billga@cityofbrea.net

Michael Gates, City Attorney, *City of Huntington Beach*
2000 Main Street, Huntington Beach, CA 92648
Phone: (714) 536-5538
Michael.Gates@surfcity-hb.org

Howard Gest, *Burhenn & Gest,LLP*
12401 Wilshire Blvd, Suite 200, Los Angeles, CA 90025
Phone: (213) 629-8787
hgest@burhenngest.com

Nicholas Ghirelli, Attorney, *Richards Watson Gershon*
355 South Grand Avenue, Suite 4000, Los Angeles, CA 90071-3101
Phone: (213) 626-8484
Nghirelli@rwglaw.com

Peter Grant, City Manager, *City of Cypress*
Claimant Contact
5275 Cypress Ave, Cypress, CA 90630
Phone: (714) 229-6700
pgrant@cypressca.org

Catherine George Hagan, Senior Staff Counsel, *State Water Resources Control Board*
c/o San Diego Regional Water Quality Control Board, 2375 Northside Drive, Suite 100, San Diego, CA 92108
Phone: (619) 521-3012
catherine.hagan@waterboards.ca.gov

Kimberly Hall-Barlow, *Jones and Mayer*
3777 N. Harbor Blvd., Fullerton, CA 92835-1366
Phone: (714) 754-5399
khb@jones-mayer.com

Heather Halsey, Executive Director, *Commission on State Mandates*
980 9th Street, Suite 300, Sacramento, CA 95814
Phone: (916) 323-3562
heather.halsey@csm.ca.gov

Andrew Hamilton, Auditor-Controller, *County of Orange*
Claimant Contact
1770 North Broadway, Santa Ana, CA 92706
Phone: (714) 834-2450
Andrew.Hamilton@ac.ocgov.com

Sunny Han, Acting Chief Financial Officer, *City of Huntington Beach*
2000 Main Street, Huntington Beach, CA 92648
Phone: (714) 536-5630
Sunny.Han@surfcity-hb.org

Aaron Harp, *City of Newport Beach*
Office of the City Attorney, 100 Civic Center Drive, Newport Beach, CA 92660
Phone: (949) 644-3131
aharp@newportbeachca.gov

Tom Hatch, City Manager, *City of Costa Mesa*
Claimant Contact
77 Fair Drive, Costa Mesa, CA 92626
Phone: (714) 754-5000
thomas.hatch@costamesaca.gov

Steven Hauerwaas, *City of Fountain Valley*
10200 Siater Avenue, Fountain Valley, CA 92708-4736
Phone: (714) 593-4441
steve.hauerwaas@fountainvalley.org

Tom Herbel, City Engineer, *City of Huntington Beach*
Public Works Department, 2000 Main Street, Huntington Beach, CA 92648
Phone: (714) 375-5077
Tom.Herbel@surfcity-hb.org

Chris Hill, Principal Program Budget Analyst, *Department of Finance*
Local Government Unit, 915 L Street, Sacramento, CA 95814
Phone: (916) 445-3274
Chris.Hill@dof.ca.gov

Michael Ho, Director of Public Works, *City of Brea*
545 Berry St., Brea, CA 92821
Phone: (714) 990-7691
michaelh@ci.brea.ca.us

Tiffany Hoang, Associate Accounting Analyst, *State Controller's Office*
Local Government Programs and Services Division, Bureau of Payments, 3301 C Street, Suite 740, Sacramento, CA 95816
Phone: (916) 323-1127
THoang@sco.ca.gov

Travis Hopkins, *City of Huntington Beach*
2000 Main Street, Huntington Beach, CA 92648
Phone: (714) 536-5437
THopkins@surfcity-hb.org

Rob Houston, City Manager, *City of Fountain Valley*
Claimant Contact
10200 Slater Avenue, Fountain Valley, CA 92708
Phone: (714) 593-4410
rob.houston@fountainvalley.org

Brian Ingallinera, Environmental Services Coordinator, *City of Brea*
1 Civic Center Circle, Brea, CA 92821
Phone: (714) 990-7672
briani@cityofbrea.net

Jill Ingram, City Manager, *City of Seal Beach*
Claimant Contact
211 8th Street, Seal Beach, CA 90740
Phone: (562) 431-2527
jingram@sealbeachca.gov

Jason Jennings, Director, *Maximus Consulting*
Financial Services, 808 Moorefield Park Drive, Suite 205, Richmond, VA 23236
Phone: (804) 323-3535
SB90@maximus.com

Angelo Joseph, Supervisor, *State Controller's Office*
Local Government Programs and Services Division, Bureau of Payments, 3301 C Street, Suite 740, Sacramento, CA 95816
Phone: (916) 323-0706
AJoseph@sco.ca.gov

Jayne Joy, Executive Officer, *Santa Ana Regional Water Quality Control Board*
3737 Main Street, Suite 500, Riverside, CA 92501-3348
Phone: (951) 782-3284
Jayne.Joy@waterboards.ca.gov

Jeremy Jungreis, Partner, *Rutan & Tucker, LLP*
611 Anton Boulevard, 14th Floor, Costa Mesa, CA 92626
Phone: (714) 641-5100
jjungreis@rutan.com

Anita Kerezsi, *AK & Company*
2425 Golden Hill Road, Suite 106, Paso Robles, CA 93446
Phone: (805) 239-7994
akcompanysb90@gmail.com

Joanne Kessler, Fiscal Specialist, *City of Newport Beach*
Revenue Division, 100 Civic Center Drive , Newport Beach, CA 90266
Phone: (949) 644-3199
jkessler@newportbeachca.gov

Lisa Kurokawa, Bureau Chief for Audits, *State Controller's Office*
Compliance Audits Bureau, 3301 C Street, Suite 700, Sacramento, CA 95816
Phone: (916) 327-3138
lkurokawa@sco.ca.gov

Claudia Landeras-Sobaih, Principal Plan Check Engineer, *City of Irvine*
One Civic Center Plaza, PO Box 19575, Irvine, Irvin 92623
Phone: (949) 724-6330
CLanderas-Sobaih@cityofirvine.org

Michael Lauffer, Chief Counsel, *State Water Resources Control Board*
1001 I Street, 22nd Floor, Sacramento, CA 95814-2828
Phone: (916) 341-5183
michael.lauffer@waterboards.ca.gov

Eric Lawyer, Legislative Advocate, *California State Association of Counties (CSAC)*
Government Finance and Administration, 1100 K Street, Suite 101, Sacramento, CA 95814
Phone: (916) 650-8112
elawyer@counties.org

Kim-Anh Le, Deputy Controller, *County of San Mateo*
555 County Center, 4th Floor, Redwood City, CA 94063
Phone: (650) 599-1104
kle@smcgov.org

Candice Lee, *Richards,Watson & Gershon,LLP*
355 South Grand Avenue, 40th Floor, Los Angeles, CA 90071
Phone: (213) 626-8484
clee@rwglaw.com

Fernando Lemus, Principal Accountant - Auditor, *County of Los Angeles*
Auditor-Controller's Office, 500 West Temple Street, Room 603, Los Angeles, CA 90012
Phone: (213) 974-0324
flemus@auditor.lacounty.gov

Grace Leung, City Manager, *City of Newport Beach*
100 Civic Center Drive, Newport Beach, CA 92660
Phone: (949) 644-3001
gleung@newportbeachca.gov

Erika Li, Chief Deputy Director, *Department of Finance*
915 L Street, 10th Floor, Sacramento, CA 95814
Phone: (916) 445-3274
erika.li@dof.ca.gov

Shally Lin, Director of Finance - Interim, *City of Fountain Valley*
10200 Slater Avenue, Fountain Valley, CA 92708
Phone: (714) 593-4418
Shally.Lin@fountainvalley.org

Keith Linker, *City of Anaheim*
Public Works, 200 S. Anaheim Boulevard, Anaheim, CA 92805
Phone: (714) 765-5148
KLinker@anaheim.net

Thomas Lo, Water Quality Administrator, *City of Irvine*
One Civic Center Plaza, PO Box 19575, Irvine, CA 92623
Phone: (949) 724-6315
tlo@cityofirvine.org

Diego Lopez, Consultant, *Senate Budget and Fiscal Review Committee*
1020 N Street, Room 502, Sacramento, CA 95814
Phone: (916) 651-4103
Diego.Lopez@sen.ca.gov

Everett Luc, Accounting Administrator I, Specialist, *State Controller's Office*
3301 C Street, Suite 740, Sacramento, CA 95816

Phone: (916) 323-0766
ELuc@sco.ca.gov

Jill Magee, Program Analyst, *Commission on State Mandates*
980 9th Street, Suite 300, Sacramento, CA 95814
Phone: (916) 323-3562
Jill.Magee@csm.ca.gov

Darryl Mar, Manager, *State Controller's Office*
3301 C Street, Suite 740, Sacramento, CA 95816
Phone: (916) 323-0706
DMar@sco.ca.gov

Tina McKendell, *County of Los Angeles*
Auditor-Controller's Office, 500 West Temple Street, Room 603, Los Angeles, CA 90012
Phone: (213) 974-0324
tmckendell@auditor.lacounty.gov

Jane McPherson, Financial Services Director, *City of Oceanside*
300 North Coast Highway, Oceanside, CA 92054
Phone: (760) 435-3055
JmcPherson@oceansideca.org

Michelle Mendoza, *MAXIMUS*
17310 Red Hill Avenue, Suite 340, Irvine, CA 95403
Phone: (949) 440-0845
michellemendoza@maximus.com

Jim Merid, Environmental Services Manager, *City of Huntington Beach*
Public Works Department, 2000 Main Street, Huntington Beach, CA 92648
Phone: (714) 374-1548
JMerid@surfcity-hb.org

Mina Mikhael, Interim Director of Public Works, *City of Buena Park*
6650 Beach Boulevard, Buena Park, CA 90621
Phone: (714) 562-3670
mmikhael@buenapark.com

Andre Monette, Partner, *Best Best & Krieger, LLP*
2000 Pennsylvania NW, Suite 5300, Washington, DC 20006
Phone: (202) 785-0600
andre.monette@bbklaw.com

Lourdes Morales, Senior Fiscal and Policy Analyst, *Legislative Analyst's Office*
925 L Street, Suite 1000, Sacramento, CA 95814
Phone: (916) 319-8320
Lourdes.Morales@LAO.CA.GOV

Marilyn Munoz, Senior Staff Counsel, *Department of Finance*
915 L Street, Sacramento, CA 95814
Phone: (916) 445-8918
Marilyn.Munoz@dof.ca.gov

Steve Myrter, Director of Public Works, *City of Seal Beach*
211 Eighth Street, Seal Beach, CA 90740
Phone: (562) 431-2527
smyrter@sealbeachca.gov

Kaleb Neufeld, Assistant Controller, *City of Fresno*
2600 Fresno Street, Fresno, CA 93721
Phone: (559) 621-2489
Kaleb.Neufeld@fresno.gov

Gregory Newmark, *Meyers, Nave*
707 Wilshire Blvd., 24th Floor, Los Angeles , CA 90017
Phone: (510) 808-2000
gnewmark@meyersnave.com

Andy Nichols, *Nichols Consulting*
1857 44th Street, Sacramento, CA 95819
Phone: (916) 455-3939
andy@nichols-consulting.com

Adriana Nunez, Staff Counsel, *State Water Resources Control Board*
Los Angeles Regional Water Quality Control Board, 1001 I Street, 22nd Floor, Sacramento, CA 95814
Phone: (916) 322-3313
Adriana.Nunez@waterboards.ca.gov

Patricia Pacot, Accountant Auditor I, *County of Colusa*
Office of Auditor-Controller, 546 Jay Street, Suite #202 , Colusa, CA 95932
Phone: (530) 458-0424
ppacot@countyofcolusa.org

Leon Page, County Counsel, *333 W. Santa Ana Blvd.*
, Santa Ana, CA 92702
Phone: (714) 834-3303
leon.page@coco.ocgov.com

Arthur Palkowitz, *Law Offices of Arthur M. Palkowitz*
12807 Calle de la Siena, San Diego, CA 92130
Phone: (858) 259-1055
law@artpalk.onmicrosoft.com

Kirsten Pangilinan, Specialist, *State Controller's Office*
Local Reimbursements Section, 3301 C Street, Suite 740, Sacramento, CA 95816
Phone: (916) 322-2446
KPangilinan@sco.ca.gov

Johnnie Pina, Legislative Policy Analyst, *League of Cities*
1400 K Street, Suite 400, Sacramento, CA 95814
Phone: (916) 658-8214
jpina@cacities.org

Jai Prasad, *County of San Bernardino*
Office of Auditor-Controller, 222 West Hospitality Lane, 4th Floor, San Bernardino, CA 92415-0018
Phone: (909) 386-8854
jai.prasad@sbcountyatc.gov

Jonathan Quan, Associate Accountant, *County of San Diego*
Projects, Revenue, and Grants Accounting, 5530 Overland Ave, Suite 410, San Diego, CA 92123
Phone: 6198768518
Jonathan.Quan@sdcounty.ca.gov

Roberta Raper, Director of Finance, *City of West Sacramento*
1110 West Capitol Ave, West Sacramento, CA 95691

Phone: (916) 617-4509
robertar@cityofwestsacramento.org

David Rice, *State Water Resources Control Board*
1001 I Street, 22nd Floor, Sacramento, CA 95814
Phone: (916) 341-5161
david.rice@waterboards.ca.gov

Elsa Robinson, *City of Placentia*
401 East Chapman Avenue, Placentia, CA 92870
Phone: (714) 993-8148
erobinson@placentia.org

Debra Rose, City Manager, *City of Lake Forest*
Claimant Contact
100 Civic Center Drive, Lake Forest, CA 92630
Phone: (949) 461-3400
drose@lakeforestca.gov

Teresita Sablan, *State Water Resources Control Board*
Santa Ana Regional Water Quality Control Board and San Francisco Bay Regional Water Quality Control Board, 1001 I Street, 22nd Floor, Sacramento, CA 95814
Phone: (916) 341-5174
Teresita.Sablan@waterboards.ca.gov

Jessica Sankus, Senior Legislative Analyst, *California State Association of Counties (CSAC)*
Government Finance and Administration, 1100 K Street, Suite 101, Sacramento, CA 95814
Phone: (916) 327-7500
jsankus@counties.org

Cindy Sconce, Director, *MGT*
Performance Solutions Group, 3600 American River Drive, Suite 150, Sacramento, CA 95864
Phone: (916) 276-8807
csconce@mgtconsulting.com

Raja Sethuraman, Director of Public Works, *City of Costa Mesa*
Department of Public Works, 77 Fair Drive, Costa Mesa, CA 92628
Phone: (714) 754-5343
raja.sethuraman@costamesaca.gov

Camille Shelton, Chief Legal Counsel, *Commission on State Mandates*
980 9th Street, Suite 300, Sacramento, CA 95814
Phone: (916) 323-3562
camille.shelton@csm.ca.gov

Carla Shelton, *Commission on State Mandates*
980 9th Street, Suite 300, Sacramento, CA 95814
Phone: (916) 323-3562
carla.shelton@csm.ca.gov

Wayne Shimabukuro, *County of San Bernardino*
Auditor/Controller-Recorder-Treasurer-Tax Collector, 222 West Hospitality Lane, 4th Floor, San Bernardino, CA 92415-0018
Phone: (909) 386-8850
wayne.shimabukuro@atc.sbcounty.gov

Jennifer Shook, *County of Orange - OC Public Works Department*
OC Watersheds Program - Stormwater External, 2301 N. Glassell Street, Orange, CA 92865

Phone: (714) 955-0671
jennifer.shook@ocpw.ocgov.com

Natalie Sidarous, Chief, *State Controller's Office*
Local Government Programs and Services Division, 3301 C Street, Suite 740, Sacramento, CA 95816
Phone: 916-445-8717
NSidarous@sco.ca.gov

Michelle Skaggs Lawrence, City Manager, *City of Oceanside*
300 North Coast Highway, Oceanside, CA 92054
Phone: (760) 435-3055
citymanager@oceansideca.org

Mike Smith, Water Quality Manager, *City of Cypress*
5275 Orange Avenue, Cypress, CA 90630
Phone: (714) 229-6752
waterquality@cypressca.org

Eileen Sobeck, Executive Director, *State Water Resources Control Board*
1001 I Street, 22nd Floor, Sacramento, CA 95814-2828
Phone: (916) 341-5183
Eileen.Sobeck@waterboards.ca.gov

Cristina Talley, City Attorney, *City of Anaheim*
200 S. Anaheim Boulevard #356, Anaheim, CA 92805
Phone: (714) 765-5169
CTalley@anaheim.net

Jolene Tollenaar, *MGT Consulting Group*
2251 Harvard Street, Suite 134, Sacramento, CA 95815
Phone: (916) 243-8913
jolenetollenaar@gmail.com

James Treadaway, Director of Public Works, *County of Orange*
300 North Flower Street, Santa Ana, CA 92703
Phone: (714) 667-9700
James.Treadaway@ocpw.ocgov.com

Evelyn Tseng, *City of Newport Beach*
100 Civic Center Drive, Newport Beach, CA 92660
Phone: (949) 644-3127
etseng@newportbeachca.gov

Brian Uhler, Principal Fiscal & Policy Analyst, *Legislative Analyst's Office*
925 L Street, Suite 1000, Sacramento, CA 95814
Phone: (916) 319-8328
Brian.Uhler@LAO.CA.GOV

Travis Van Ligten, Associate, *Rutan & Tucker, LLP*
611 Anton Blvd, Suite 1400, Costa Mesa, CA 92626
Phone: (714) 641-5100
tvanligten@rutan.com

Antonio Velasco, Revenue Auditor, *City of Newport Beach*
100 Civic Center Drive, Newport Beach, CA 92660
Phone: (949) 644-3143
avelasco@newportbeachca.gov

Emel Wadhwani, Senior Staff Counsel, *State Water Resources Control Board*
Office of Chief Counsel, 1001 I Street, Sacramento, CA 95814
Phone: (916) 322-3622
emel.wadhwani@waterboards.ca.gov

Ada Waelder, Legislative Analyst, Government Finance and Administration, *California State Association of Counties (CSAC)*
1100 K Street, Suite 101, Sacramento, CA 95814
Phone: (916) 327-7500
awaelder@counties.org

David Webb, *City of Newport Beach*
100 Civic Center Drive, Newport Beach, CA 92660
Phone: (949) 644-3328
dwebb@newportbeachca.gov

Renee Wellhouse, *David Wellhouse & Associates, Inc.*
3609 Bradshaw Road, H-382, Sacramento, CA 95927
Phone: (916) 797-4883
dwa-renee@surewest.net

Tom Wheeler, Director of Public Works, *City of Lake Forest*
100 Civic Center Drive, Lake Forest, CA 92630
Phone: (949) 461-3480
twheeler@lakeforestca.gov

Adam Whelen, Director of Public Works, *City of Anderson*
1887 Howard St., Anderson, CA 96007
Phone: (530) 378-6640
awhelen@ci.anderson.ca.us

Colleen Winchester, Senior Deputy City Attorney, *City of San Jose*
200 East Santa Clara Street, 16th Floor, San Jose, CA 95113
Phone: (408) 535-1987
Colleen.Winchester@sanjoseca.gov

Jacqueline Wong-Hernandez, Deputy Executive Director for Legislative Affairs, *California State Association of Counties (CSAC)*
1100 K Street, Sacramento, CA 95814
Phone: (916) 650-8104
jwong-hernandez@counties.org

Julia Woo, Deputy County Counsel, *County of Orange*
333 West Santa Ana Blvd, Suite 407, Santa Ana, CA 92701
Phone: (714) 834-6046
julia.woo@coco.ocgov.com

Elisa Wynne, Staff Director, *Senate Budget & Fiscal Review Committee*
California State Senate, State Capitol Room 5019, Sacramento, CA 95814
Phone: (916) 651-4103
elisa.wynne@sen.ca.gov

Juan Zavala, Principal Engineer, *City of Fullerton*
Public Works, 303 West Commonwealth Avenue, Fullerton, CA 92832
Phone: (714) 738-6845
Juan.Zavala@cityoffullerton.com

Al Zelinka, City Manager, *City of Huntington Beach*
Claimant Contact
2000 Main St, Huntington Beach, CA 92648
Phone: (714) 375-8465
Al.Zelinka@surfcity-hb.org

Helmholst Zinser-Watkins, Associate Governmental Program Analyst, *State Controller's Office*
Local Government Programs and Services Division, Bureau of Payments, 3301 C Street, Suite 700, Sacramento, CA 95816
Phone: (916) 324-7876
HZinser-watkins@sco.ca.gov

STATE of CALIFORNIA
COMMISSION ON STATE MANDATES

June 17, 2024

Exhibit B

Mr. David Burhenn
Burhenn & Gest, LLP
624 South Grand Avenue, Suite 2200
Los Angeles, CA 90017

Ms. Natalie Sidarous
State Controller's Office
Local Government Programs and Services Division
3301 C Street, Suite 740
Sacramento, CA 95816

And Parties, Interested Parties, and Interested Persons (See Mailing List)

Re: Draft Proposed Statewide Cost Estimate, Schedule for Comments, and Notice of Hearing
California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2009-0030, Sections XI.4, XIII.1, XIII.4, XIII.7, XVIII.B.8, and XVIII.B.9, Adopted May 22, 2009, 09-TC-03
Santa Ana Regional Water Quality Control Board, Resolution No. R8-2009-0030, adopted May 22, 2009

Dear Mr. Burhenn and Ms. Sidarous:

The Draft Proposed Statewide Cost Estimate for the above-captioned matter is enclosed for your review and comment.

Written Comments

Written comments may be filed on the Draft Proposed Statewide Cost Estimate not later than **5:00 p.m. on June 27, 2024**. You are advised that comments filed with the Commission are required to be electronically filed (e-filed) in an unlocked legible and searchable PDF file, using the Commission's Dropbox. (Cal. Code Regs., tit. 2, § 1181.3(c)(1).) Refer to https://www.csm.ca.gov/dropbox.shtml on the Commission's website for electronic filing instructions. If e-filing would cause the filer undue hardship or significant prejudice, filing may occur by first class mail, overnight delivery or personal service only upon approval of a written request to the executive director. (Cal. Code Regs., tit. 2, § 1181.3(c)(2).)

Hearing

This matter is set for hearing on **Friday, July 26, 2024, at 10:00 a.m., at Park Tower, 980 9th Street, Suite 300, Sacramento, California, 95814 and via Zoom**.

The Proposed Statewide Cost Estimate will be issued on or about July 12, 2024.

This matter is proposed for the Consent Calendar. Please let us know in advance if you oppose having this item placed on the Consent Calendar.

Please also notify Commission staff not later than the Wednesday prior to the hearing that you or a witness you are bringing plan to testify and please specify the names and email addresses of the people who will be speaking for inclusion on the witness list.

The last communication from Commission staff will be the Proposed Statewide Cost Estimate, which will be issued approximately 2 weeks prior to the hearing, and it is incumbent upon the participants to let Commission staff know if they wish to testify or bring witnesses.

Sincerely,

Heather Halsey
Executive Director

ITEM 7

DRAFT PROPOSED STATEWIDE COST ESTIMATE

$459,106 - $690,409
Initial Claim Period[1]
(June 1, 2009 to December 31, 2017)

California Regional Water Quality Control Board, Santa Ana Region,
Order No. R8-2009-0030, Sections XI.4, XIII.1, XIII.4, XIII.7, XVIII.B.8, and XVIII.B.9.

09-TC-03

The Commission on State Mandates (Commission) adopted this Statewide Cost Estimate by a vote of [vote count will be included in the adopted Statewide Cost Estimate] during a regularly scheduled hearing on July 26, 2024 as follows:

Member	Vote
Lee Adams, County Supervisor	
Deborah Gallegos, Representative of the State Controller	
Jennifer Holman, Representative of the Director of the Office of Planning and Research	
Renee Nash, School District Board Member	
William Pahland, Representative of the State Treasurer, Vice Chairperson	
Michelle Perrault, Representative of the Director of the Department of Finance, Chairperson	

STAFF ANALYSIS

Summary of the Mandate, Eligible Claimants, and Period of Reimbursement

This Statewide Cost Estimate addresses state-mandated activities arising from National Pollutant Discharge Elimination System (NPDES) Order No. R8-2009-0030, adopted by the Santa Ana Regional Water Quality Control Board on May 22, 2009.

The Commission adopted the Test Claim Decision on March 24, 2023, partially approving reimbursement for permittees that incur increased costs to perform the reimbursable activities under the mandate, and adopted the Decision and Parameters

[1] The entire reimbursement period is within the initial claim period because the Commission found the mandate is not reimbursable beginning January 1, 2018 since the claimants have fee authority, sufficient as a matter of law, to pay for the reimbursable activities pursuant to Government Code section 17556(d).

and Guidelines on September 22, 2023. The permittees include the County of Orange, the Orange County Flood Control District, and the cites of Anaheim, Brea, Buena Park, Costa Mesa, Cypress, Fountain Valley, Fullerton, Garden Grove, Huntington Beach, Irvine, Laguna Hills, Laguna Woods, La Habra, La Palma, Lake Forest, Los Alamitos, Newport Beach, Orange, Placentia, Santa Ana, Seal Beach, Stanton, Tustin, Villa Park, Westminster and Yorba Linda.[2]

The initial reimbursement period, which includes the entire reimbursement period, is June 1, 2009, through December 31, 2017 (the last month of 2008-2009 through first half of 2017-2018).[3] Eligible claimants were required to file initial claims with the State Controller's Office (Controller) by April 25, 2024. Late initial reimbursement claims may be filed until April 25, 2025, but will incur a 10 percent late filing penalty of the total amount of the initial claim without limitation.[4]

Reimbursable Activities

The Commission approved the following reimbursable activities for this program:

A. Submit a proposed Cooperative Watershed Program that will fulfill applicable requirements of the selenium TMDL implementation plan within 24 months of adoption of the test claim permit, or one month after approval of the Regional Board selenium TMDLs by the Office of Administrative Law (OAL), whichever is later. (Order No. R8-2009-0030, Section XVIII.B.8.)

B. Develop a "constituent-specific source control plan" for copper, lead, and zinc, including a monitoring program, to ensure compliance" with WLAs [waste load allocations] for dry and wet weather runoff, which were derived from the 2007 San Gabriel River Metals TMDL jointly developed by the Los Angeles Water Board and U.S. EPA. (Order No. R8-2009-0030, Section XVIII.B.9.)[5]

C. Public education program:

    1. By July 1, 2012, the one-time activity to complete a public awareness survey to determine the effectiveness of the current public and business education strategy, and to include the findings of the survey and any proposed changes

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[2] Exhibit A, Decision and Parameters and Guidelines, adopted September 22, 2023, pages 6, 16.

[3] Exhibit A, Decision and Parameters and Guidelines, adopted September 22, 2023, pages 5, 14.

[4] Government Code section 17561(d)(3).

[5] According to the permit, Activity B. applies to the permittees "with discharges to Coyote Creek or the San Gabriel River" and must be completed within 12 months of the date of permit adoption. Exhibit X (4), Regional Water Quality Control Board, *Order No. R8-2009-0030*, page 73 (test claim permit).

to the current program in the annual report for 2011-2012. (Order No. R8-2009-0030, Section XIII.1.)

2. Permittees shall administer individual or regional workshops for each of the specified sectors (manufacturing facilities; mobile service industry; commercial, distribution, and retail sales industry; residential/commercial landscape construction and service industry; residential and commercial construction industry; and residential and community activities) by July 1, 2010 and annually thereafter. (Order No. R8-2009-0030, Section XIII.4.)
3. The principal permittee, in collaboration with the co-permittees, shall develop and implement a mechanism for public participation in the updating and implementation of DAMPs, WQMP guidance, and Fact Sheets for "various activities." The public shall be informed of the availability of these documents through public notices in local newspapers, County or city websites, local libraries, city halls, or courthouses. (Order No. R8-2009-0030, Section XIII.7.)

D. Within 18 months of adoption, develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies. (Order No. R8-2009-0030, Section XI.4.)[6]

Offsetting Revenues and Reimbursements

The Parameters and Guidelines specify that any offsetting revenue the claimant experiences in the same program as a result of the same statutes or executive orders found to contain the mandate shall be deducted from the costs claimed. In addition, reimbursement for this mandate from any source, including but not limited to, state and federal funds, any service charge, fee, or assessment authority to offset all or part of the costs of this program, and any other funds that are not the claimant's proceeds of taxes shall be identified and deducted from any claim submitted for reimbursement.[7]

Offsetting revenues identified in the reimbursement claims totaled $449,920 for fiscal years 2008-2009 through 2010-2011, and 2012-2013 through 2016-2017 (no claims were filed for 2011-2012 or 2017-2018). Only the County of Orange identified offsetting revenue but did not disclose its source.[8]

[6] Exhibit A, Decision and Parameters and Guidelines, adopted September 22, 2023, pages 15-16.

[7] Exhibit A, Decision and Parameters and Guidelines, adopted September 22, 2023, page 19.

[8] Exhibit X (6), Spreadsheet of Claims Data.

Statewide Cost Estimate

All activities except for C.2., and C.3., are one-time activities and end within the first few years of the program. Therefore, all costs for Activities A., B., C.1., and D., are expected to be claimed for the first few years of the reimbursement period only. Costs for Activities C.2., and C.3., however, are expected to be claimed for the entire reimbursement period ending December 31, 2017.

Staff reviewed 53 unaudited reimbursement claims submitted by 12 city claimants and Orange County, as compiled by the Controller. Staff developed the Statewide Cost Estimate based on the assumptions and methodology discussed herein. Table 1 below summarizes the cost estimates for all fiscal years, 2008-2009 to 2016-2017.

Table 1. Reimbursement Period Cost Estimate

Activity A. Submit a proposed Cooperative Watershed Program that will fulfill applicable requirements of the selenium TMDL implementation plan within 24 months of adoption of the test claim permit, or one month after approval of the Regional Board selenium TMDLs by OAL (April 19, 2019),[9] whichever is later.	$513,282- $627,344
Activity B. Develop a "constituent-specific source control plan" for copper, lead, and zinc, including a monitoring program, to ensure compliance" with WLAs for dry and wet weather runoff, which were derived from the 2007 San Gabriel River Metals TMDL jointly developed by the Los Angeles Water Board and U.S. EPA.	$72,578 - $114,914
Activity C.1. By July 1, 2012, the one-time activity to complete a public awareness survey to determine the effectiveness of the current public and business education strategy, and to include the findings of the survey and any proposed changes to the current program in the annual report for 2011-2012.	$110,310 - $237,585
Activity C.2. Administer individual or regional workshops for each of the specified sectors (manufacturing facilities; mobile service industry; commercial, distribution, and retail sales industry; residential/commercial landscape construction and service industry; residential and commercial construction industry; and residential and community activities) by July 1, 2010 and annually thereafter.	$177,238 - $381,748

[9] The OAL approval date of April 19, 2019, is in the history of California Code of Regulations, title 23, section 3979.11.

Activity C.3. The principal permittee, in collaboration with the co-permittees, shall develop and implement a mechanism for public participation in the updating and implementation of DAMPs, WQMP guidance, and Fact Sheets for various activities. The public shall be informed of the availability of these documents through public notices in local newspapers, County or city websites, local libraries, city halls, or courthouses.	$623 - $1,455
Activity D. Within 18 months of adoption, develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies.	$17,256 - $53,679
Indirect Costs identified	$17,739 - $28,601
Offsetting Revenue	$449,920 - $727,789
Late Filing Penalty	$0 - $27,128
Total Costs	$459,106 - $690,409

Assumptions

1. Except for Activities C.2., and C.3., all of the approved activities are one-time activities and therefore most costs are expected to be claimed only for the first few years of the reimbursement period.

   a. Activity A. requires the permittees to submit a proposed Cooperative Watershed Program that will fulfill applicable requirements of the selenium TMDL implementation plan within 24 months of adoption of the test claim permit, or one month after approval of the Regional Board selenium TMDLs by OAL (April 19, 2019),[10] whichever is later. All the claims for this activity were filed for the first three fiscal years of the claiming period, 2008-2009 to 2010-2011,[11] (The reimbursement period includes only June of fiscal year 2008-2009).

      The selenium TMDL for the Cooperative Watershed Program applies to the following permittees: the County of Orange, Orange County Flood Control District (OCFCD), and the cities of Irvine, Laguna Hills, Laguna Woods, Lake Forest, Newport Beach, Orange, Tustin, and Santa Ana that discharge to the San Diego Creek Subwatershed; and the County of Orange, OCFCD, and the

[10] The OAL approval date of April 19, 2019, is in the history of California Code of Regulations, title 23, section 3979.11.

[11] Exhibit X (6), Spreadsheet of Claims Data.

cities of Costa Mesa, Santa Ana and Newport Beach for the Santa Ana-Delhi Channel.[12]

The claimants for Activity A. are the cities of Costa Mesa, Irvine, Laguna Hills, Laguna Woods, Lake Forest, Orange, Tustin, Newport Beach, and Orange County.[13] Therefore, the high estimated costs assume that only the remaining two permittees subject to the TMDL will file claims (Santa Ana and the OCFCD).

b. Activity B. requires the permittees to develop a "constituent-specific source control plan" for copper, lead, and zinc to ensure compliance" with WLAs for dry and wet weather runoff. The plan, which was due "within 12 months of permit adoption" (by May 22, 2010),[14] included a monitoring program and was derived from waste load allocations in the 2007 San Gabriel River Metals TMDL jointly developed by the Los Angeles Water Board and U.S. EPA. According to the 2015-2016 Annual Progress Report and Program Effectiveness Assessment, this source control plan was finalized in June 2010.[15] The reimbursement claims for Activity B., were all filed for fiscal year 2009-2010 only,[16] and since this one-time activity was completed there are no other years for which to claim.

The workgroup of watershed cities that developed the Activity B., source control plan consisted of Anaheim, Brea, Buena Park, Cypress, Fullerton, La Habra, La Palma, Los Alamitos, Placentia, Seal Beach and Orange County.[17]

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[12] Exhibit X (5), Regional Water Quality Control Board, Santa Ana Region, Santa Ana River Basin Plan, https://www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan/docs/2019/New/Chapter_6_June_2019.pdf (accessed on May 24, 2024) pages 6-88 to 6-89.

[13] Exhibit X (6), Spreadsheet of Claims Data.

[14] The test claim permit was *adopted* by the Regional Board on May 22, 2009, but had a later effective date of June 1, 2009. Exhibit X (4), Regional Water Quality Control Board, *Order No. R8-2009-0030,* page 82 (test claim permit).

[15]. Exhibit X (2), Commission on State Mandates, Test Claim Decision on *California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2009-0030, Sections IX, X, XI, XII, XIII, and XVIII, Adopted May 22, 2009*, 09-TC-03, adopted March 24, 2023, https://csm.ca.gov/decisions/09-tc-03-032423.pdf (accessed on January 9, 2024), page 105.

[16] Exhibit X (6), Spreadsheet of Claims Data.

[17] Exhibit X (2), Commission on State Mandates, Test Claim Decision on *California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2009-0030, Sections IX, X, XI, XII, XIII, and XVIII, Adopted May 22, 2009*, 09-TC-03, adopted March 24, 2023, https://csm.ca.gov/decisions/09-tc-03-032423.pdf (accessed on January 9, 2024), page 105.

However according to the permit, Activity B. applies to the permittees "with discharges to Coyote Creek or the San Gabriel River."[18] The TMDL lists the following permittee cities in the Coyote Creek basin: Anaheim, Brea, Buena Park, Cypress, Fullerton, Garden Grove, La Habra, La Palma, Los Alamitos, Placentia, Yorba Linda; and the following permittee cities in the San Gabriel River Basin (reaches 1 to 5): Garden Grove, Los Alamitos, and Seal Beach.[19]

For Activity B. the following claimants submitted reimbursement claims: the cities of Anaheim, Buena Park, Costa Mesa, Fullerton, Irvine, Laguna Hills, Laguna Woods, Lake Forest, Orange (city), Tustin, Westminster, and Orange County.[20] Some of these claimants participated in the workgroup to create the plan, but it is unclear what role claimants who filed initial claims but did not participate in the workgroup had in preparing the plan. The approved activity is only to create the plan; implementing it is not an approved activity.[21]

The high estimate assumes that, in addition to the local agencies that already claimed reimbursement for Activity B. only the seven permittees that are subject to the TMDL and participated in the workgroup but did not already claim (Brea, Cypress, La Habra, La Palma, Los Alamitos, Placentia, and Seal Beach) will claim reimbursement.

c. Activity C.1. (public awareness survey) was to be completed by July 1, 2012. The Annual Progress Report and Program Effectiveness Assessment indicates that the survey was conducted in May 2012.[22] All costs claimed for one-time activity C.1. were for 2009-2010 and 2010-2011, with 96 percent of costs claimed ($105,792 of $110,310) in 2009-2010. It is

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[18] Exhibit X (4), Regional Water Quality Control Board, *Order No. R8-2009-0030,* page 73 (test claim permit).

[19] Exhibit X (8), U.S. EPA, Region IX, Total Maximum Daily Load for Metals and Selenium, San Gabriel River and Impaired Tributaries, March 26, 2007, https://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/Established/San%20Gabriel%20River%20Metals%20TMDL/final_sangabriel_metalstmdl_3-27-07.pdf (accessed on January 8, 2024), page 53.

[20] It is unclear why non-workgroup and non-TMDL cities (Costa Mesa, Irvine, Laguna Hills, Laguna Woods, Lake Forest, Tustin, Westminster) claimed costs for Activity B.

[21] Exhibit X (2), Commission on State Mandates, Test Claim Decision on *California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2009-0030, Sections IX, X, XI, XII, XIII, and XVIII, Adopted May 22, 2009*, 09-TC-03, adopted March 24, 2023, https://csm.ca.gov/decisions/09-tc-03-032423.pdf (accessed on January 9, 2024), page 114.

[22] Exhibit X (7), Unified Annual Progress Report, Program Effectiveness Assessment, November 15, 2017, Section C-6.0, page C-6-15.

assumed that this activity was completed in 2010-2011 and no costs for it will be claimed for fiscal years after fiscal year 2010-2011.

d. Activity D. (develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies) was due within 18 months of permit adoption (by Nov. 22, 2010). Costs for activity D were claimed in 2010-2011, 2012-2013, 2013-2014, and 2014-2015, with 81 percent of the costs claimed in 2010-2011. Therefore, since the pilot program appears to have been completed, it is assumed that no costs will be claimed for fiscal years after 2014-2015.

2. It is assumed that the ongoing costs for Activity C.2. will continue to be claimed for the entire reimbursement period, ending December 31, 2017. However, no additional costs are expected to be claimed for continuing activity C.3., based on the fact that costs for that activity were only claimed for the first couple years of the reimbursement period.

   a. Activity C.2., to administer individual or regional workshops for each of the specified sectors (manufacturing facilities; mobile service industry; commercial, distribution, and retail sales industry; residential/commercial landscape construction and service industry; residential and commercial construction industry; and residential and community activities) by July 1, 2010 and annually thereafter continues throughout the reimbursement program and is assumed to make up all of the costs claimed for fiscal year 2015-2016 through the first half of fiscal year 2016-2017 (December 31, 2017), other than minor indirect costs.

   b. Activity C.3. requires the principal permittee, in collaboration with the co-permittees, to develop and implement a mechanism for public participation in the updating and implementation of DAMPs, WQMP guidance, and Fact Sheets for various activities. The public shall be informed of the availability of these documents through public notices in local newspapers, County or city websites, local libraries, city halls, or courthouses. All claims for activity C.3. were filed only for 2008-2009 and 2009-2010, so no costs for other fiscal years are expected to be claimed.

3. Consistent with the assumptions for the one-time activities A., B., C.1., and D., discussed above, the vast majority of costs claimed were for the first three fiscal years of the permit: 2008-2009, 2009-2010, and 2010-2011. The initial claims indicate that 86 percent of the total costs claimed ($392,860 of $459,106, net of offsets) are for fiscal years 2008-2009 through 2010-2011.

4. Activities A. and B. apply to only a subset of the permittees, so it is assumed only that subset will claim for those Activities.

5. The amount claimed for the period of reimbursement may also be higher if late or amended claims are filed. Only 13 of 28 eligible claimants (46 percent) filed

claims for the reimbursement period.[23] The remaining 15 eligible claimants may still file late claims, and the 13 claimants that timely filed may file amended claims for additional costs.

6. As indicated by the claims filed, most or all the cities' claimed costs are for contracted services because the permit designated the County of Orange as the principal permittee and the city claimants paid the principal permittee for services under a cost sharing agreement. The County of Orange may only claim for its own expenses and not those incurred on behalf of the city claimants.

7. Costs may be lower if offsetting revenue was used by a claimant to pay for the reimbursement activities. The Test Claim Decision recognizes various types of non-tax revenue that could be offset,[24] and the Parameters and Guidelines state that offsets include but not be limited to "state and federal funds, any service charge, fee, or assessment authority to offset all or part of the costs of this program, and any other funds that are not the claimant's proceeds of taxes shall be identified and deducted from any claim submitted for reimbursement."[25] Only the County of Orange identified offsetting revenue of $449,920 for fiscal years 2008-2009 through 2010-2011, and 2012-2013 through 2016-2017 (no claims were filed by any local agencies for 2011-2012 or 2017-2018). The County did not disclose the source of revenue, but according to its Program Effectiveness Assessment for 2015-2016, its revenue sources for stormwater (other than General Fund) include: a separate utility billing item, gas tax, and special district funds, such as a sanitation fee, fleet maintenance fund, grants, pollution response cost recovery, and other service fees and fines.[26]

   Although the City of Lake Forest identified grant funding received in fiscal year 2012-2013 for two percent of its costs,[27] and for fiscal years 2014-2015 and

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[23] Exhibit X (6), Spreadsheet of Claims Data.

[24] Exhibit X (2), Commission on State Mandates, Test Claim Decision on *California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2009-0030, Sections IX, X, XI, XII, XIII, and XVIII, Adopted May 22, 2009*, 09-TC-03, adopted March 24, 2023, https://csm.ca.gov/decisions/09-tc-03-032423.pdf (accessed on January 9, 2024), pages 198, 199-204.

[25] Exhibit A, Decision and Parameters and Guidelines, adopted September 22, 2023, page 18.

[26] Exhibit X (3), County of Orange and Orange County Flood Control District, Annual Progress Report, Program Effectiveness Assessment, November 15, 2016, Section C-2.0, page C-2-7.

[27] Exhibit X (1), Claimant's Comments on the Draft Proposed Decision, filed November 4, 2022, https://csm.ca.gov/matters/09-TC-03/doc85.pdf (accessed on January 9, 2024), page 221.

2015-2016 received grant funding for eight percent of its costs,[28] it did not file claims for 2012-2013 or 2015-2016, and did not identify any offsetting revenue in its 2014-2015 claim.[29]

8. Actual costs may be lower if the Controller reduces any reimbursement claim for this program following an audit deeming the claim to be excessive, unreasonable, or not eligible for reimbursement.

Methodology

A. Reimbursement Period Cost Estimate

Activity A. consists of submitting a proposed Cooperative Watershed Program that will fulfill applicable requirements of the selenium TMDL implementation plan within 24 months of adoption of the test claim permit (by May 22, 2011), or one month after approval of the Regional Board selenium TMDLs by OAL (April 19, 2019),[30] whichever is later. Consistent with the assumptions above, the estimate includes only the three fiscal years 2008-2009 to 2010-2011. The low estimate is costs actually claimed. The high estimate adds two more claimants (Santa Ana and the OCFCD) that are subject to the selenium TMDL. Activity A. claims are calculated by using the average costs claimed multiplied by the two eligible claimants that have not yet filed claims.

> Activity A. actual costs claimed [$513,282] / the number of filers [9] = average Activity A. cost per filer [$57,031]
>
> Average activity A. cost per filer [$57,031] x number of non-filers [2] = total estimated non-filer Activity A. costs [$114,062]
>
> Activity A. actual costs claimed [$513,282] + estimated non-filer Activity A. costs that could be claimed in late claims [$114,062] = Total potential Activity A. costs [$627,344]

Activity B., consists of developing a "constituent-specific source control plan" for copper, lead, and zinc, including a monitoring program, to ensure compliance" with WLAs for dry and wet weather runoff, which were derived from the 2007 San Gabriel River Metals TMDL jointly developed by the Los Angeles Water Board and U.S. EPA. Consistent

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[28] Exhibit X (1), Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, https://csm.ca.gov/matters/09-TC-03/doc85.pdf (accessed on January 9, 2024), pages 225, 229. See also Exhibit X (2), Commission on State Mandates, Test Claim Decision on *California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2009-0030, Sections IX, X, XI, XII, XIII, and XVIII, Adopted May 22, 2009*, 09-TC-03, adopted March 24, 2023, https://csm.ca.gov/decisions/09-tc-03-032423.pdf (accessed on January 9, 2024), pages 199-204.

[29] Exhibit X (6), Spreadsheet of Claims Data.

[30] The OAL approval date of April 19, 2019 is in the history of California Code of Regulations, title 23, section 3979.11.

with the assumptions described above, the high estimate assumes that, in addition to the local agencies that already claimed reimbursement for activity B, the seven permittees subject to the TMDL and that participated in the workgroup to develop the plan, but did not already claim (Brea, Cypress, La Habra, La Palma, Los Alamitos, Placentia, and Seal Beach), will claim reimbursement. This is calculated by using the average costs claimed multiplied by the seven eligible claimants who have not yet filed claims. Then add the actual claims to the average claim times the seven claimants who did not file claims. The low estimate is for only costs claimed. The high estimate assumes all claimants that participated in the workgroup will file a claim for this activity.

> Activity B. actual costs claimed [$72,578] / the number of filers [12] = average cost per filer [$6,048]
>
> Average Activity B. cost per filer [$6,048] x number of non-filers [7] = total estimated non-filer Activity B. costs [$42,336]
>
> Activity B. actual costs claimed [$72,578] + estimated non-filer costs that could be claimed in late claims [$42,336] = Total potential Activity B. costs [$114,914]

Costs for Activity C.1. consist of the one-time activity to complete a public awareness survey to determine the effectiveness of the current public and business education strategy by July 1, 2012, and to include the findings of the survey and any proposed changes to the current program in the annual report for 2011-2012. This is calculated by using the average costs claimed multiplied by the 15 eligible claimants who have not yet filed claims. Then add the actual claims to the average claim times the 15 claimants who did not file claims. The low estimate is for only costs claimed. The high estimate assumes all eligible claimants will file a claim for activity C.1.

> Activity C.1. actual costs claimed [$110,310] / the number of filers [13] = average Activity C.1. cost per filer [$8,485]
>
> Average Activity C.1. cost per filer [$8,485] x number of non-filers [15] = total estimated non-filer Activity C.1. costs [$127,275]
>
> Activity C.1. actual costs claimed [$110,310] + estimated non-filer Activity C.1. costs that could be claimed in late claims [$127,275] = Total potential Activity C.1. costs [$237,585]

Activity C.2. consists of administering individual or regional workshops for each of the specified sectors (manufacturing facilities; mobile service industry; commercial, distribution, and retail sales industry; residential/commercial landscape construction and service industry; residential and commercial construction industry; and residential and community activities) by July 1, 2010, and annually thereafter. Activity C.2. is calculated by using the average costs claimed multiplied by the number of eligible claimants who have not yet filed claims. Then add the actual claims to the average claim times the number of claimants who did not file claims. The low estimate is for only costs claimed. The high estimate assumes all eligible claimants will file a claim for this activity.

> Activity C.2. actual costs claimed [$177,238] / the number of filers [13] = average Activity C.2. cost per filer [$13,634]

Average activity C.2. cost per filer [$13,634] x number of non-filers [15] = total estimated non-filer Activity C.2. costs [$204,510]

Activity C.2. actual costs claimed [$177,238] + estimated non-filer Activity C.2. costs that could be claimed in late claims [$204,510] = Total potential Activity C.2. costs [$381,748]

Activity C.3. consists of the principal permittee, in collaboration with the co-permittees, developing and implementing a mechanism for public participation in the updating and implementation of DAMPs, WQMP guidance, and Fact Sheets for various activities. The public shall be informed of the availability of these documents through public notices in local newspapers, county or city websites, local libraries, city halls, or courthouses. Activity C.3. is calculated by using the average costs claimed multiplied by the number of eligible claimants who have not yet filed claims. Then add the actual claims to the average claim times the number of claimants who did not file claims. The low estimate is for only costs claimed. The high estimate assumes all eligible claimants will file a claim for this activity.

Activity C.3. actual costs claimed [$623] / the number of filers [12] = average Activity C.3. cost per filer [$52]

Average activity C.3. cost per filer [$52] x number of non-filers [16] = total estimated non-filer Activity C.3. costs [$832]

Activity C.3. actual costs claimed [$623] + estimated non-filer Activity C.3. costs that could be claimed in late claims [$832] = Total potential Activity C.3. costs [$1,455]

Activity D. consists of, within 18 months of permit adoption (by November 22, 2010), developing a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies. This is calculated by using the average costs claimed multiplied by the number of eligible claimants who have not yet filed claims. Then add the actual claims to the average claim times the number of claimants who did not file claims. The low estimate is for only costs claimed. The high estimate assumes all eligible claimants will file a claim for this activity.

Activity D. actual costs claimed [$17,256] / the number of filers [9] = average Activity D. cost per filer [$1,917]

Average activity D. cost per filer [$1,917] x number of non-filers [19] = total estimated non-filer Activity D. costs [$36,423]

Activity D. actual costs claimed [$17,256] + estimated non-filer Activity D. costs that could be claimed in late claims [$36,423] = Total potential Activity D. costs [$53,679]

Indirect Costs: The low end of the range for indirect costs is those indirect costs actually claimed. The high end, in addition to indirect costs actually claimed, assumes that all eligible claimants who have not yet filed claims will file claims for indirect costs at

the same average rate actually claimed, which is calculated by dividing indirect costs claimed by direct costs claimed equals average indirect cost rate (as a percentage). Then multiply the average indirect cost rate by the estimated direct costs.

> Indirect Costs Actually Claimed [$17,739] / Direct Costs Actually Claimed [$909,026] = Average Indirect Cost Rate [2%].
>
> Indirect Cost Rate [2%] x Estimated Direct Costs (sum of all estimated activity costs for the initial claim period) [$1,430,036] = High End of the Estimated Indirect Costs [$28,601].

Offsetting Revenues: The low end of the range for offsetting revenues is the total amount of offsetting revenues actually claimed. The high end assumes that all eligible claimants will file claims, with offsetting revenues reported by all eligible claimants at the same average rate, and is calculated by dividing the offsetting revenue identified by the actual direct and indirect costs to get the offsetting revenue as a percentage of total costs claimed. Multiply the rate by the estimated direct and indirect costs not claimed. Then add the estimated offsetting revenue for non-filling claimants to the offsetting revenue actually claimed.

> Actual Offsetting Revenues [$449,920] / Actual Direct and Indirect Costs [$909,026] = Offsetting Rate (offsetting revenues as a percentage of total costs claimed) [49%].
>
> Estimated Non-filer Direct and Indirect Costs [$567,080] x Offsetting Rate [49%] = Non-filer Offsetting Revenues [$277,869].
>
> Actual Offsetting Revenues [$449,920] + Non-filer Offsetting Revenues [$277,869] = High End of Estimated Offsetting Revenues [$727,789]

Late Filing Penalties: The low end is $0 because none of the initial claims compiled by the Controller were assessed a late filing penalty. The high end assumes that all non-filers will file claims for the initial period of reimbursement, which will be subject to a late filing penalty, and that penalty is calculated by adding non-filer direct and indirect costs and subtracting offsets to get net costs. Then multiply the net costs by a ten percent late filing penalty to calculate estimated non-filer late filing penalties, which are added to the actual late filing penalties (as reported) to estimate the high late filing penalties.

> Estimated Non-filer Direct and Indirect Costs [$531,923] – Estimated Non-filer Offsets [$260,642] = Estimated Non-filer Net Costs [$271,281].
>
> Estimated Non-filer Net Costs [$271,281] x (10% late filing penalty) = Estimated Non-filer Late Filing Penalties [$27,128].
>
> Actual Late Filing Penalties [$0] + Estimated Non-filer Late Filing Penalties [$27,128] = High End of Estimated Late Filing Penalties [$27,128].

Draft Proposed Statewide Cost Estimate

On June 17, 2024, Commission staff issued the Draft Proposed Statewide Cost Estimate.[31]

Staff Recommendation

Staff recommends that the Commission adopt this Statewide Cost Estimate of $459,106 to $690,409 for the Initial Claim Period that began on June 1, 2009 and ends on December 31, 2017.

[31] Exhibit B, Draft Proposed Statewide Cost Estimate, issued June 17, 2024.

DECLARATION OF SERVICE BY EMAIL

I, the undersigned, declare as follows:

I am a resident of the County of Sacramento and I am over the age of 18 years, and not a party to the within action. My place of employment is 980 Ninth Street, Suite 300, Sacramento, California 95814.

On June 17, 2024, I served the:

- **Current Mailing List dated June 14, 2024**
- **Draft Proposed Statewide Cost Estimate, Schedule for Comments, and Notice of Hearing issued June 17, 2024**

  California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2009-0030, Sections XI.4, XIII.1, XIII.4, XIII.7, XVIII.B.8, and XVIII.B.9, Adopted May 22, 2009, 09-TC-03
  Santa Ana Regional Water Quality Control Board, Resolution No. R8-2009-0030, adopted May 22, 2009

By making it available on the Commission's website and providing notice of how to locate it to the email addresses provided on the attached mailing list.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that this declaration was executed on June 17, 2024 at Sacramento, California.

Jill Magee
_____

Jill Magee
Commission on State Mandates
980 Ninth Street, Suite 300
Sacramento, CA 95814
(916) 323-3562

COMMISSION ON STATE MANDATES

Mailing List

Last Updated: 6/14/24

Claim Number: 09-TC-03

Matter: California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2009-0030, Sections IX, X, XI, XII, XIII, and, XVIII, Adopted May 22, 2009

Claimants: City of Anaheim
City of Brea
City of Buena Park
City of Costa Mesa
City of Cypress
City of Fountain Valley
City of Fullerton
City of Huntington Beach
City of Irvine
City of Lake Forest
City of Newport Beach
City of Placentia
City of Seal Beach
City of Villa Park
County of Orange
Orange County Flood Control District

TO ALL PARTIES, INTERESTED PARTIES, AND INTERESTED PERSONS:

Each commission mailing list is continuously updated as requests are received to include or remove any party or person on the mailing list. A current mailing list is provided with commission correspondence, and a copy of the current mailing list is available upon request at any time. Except as provided otherwise by commission rule, when a party or interested party files any written material with the commission concerning a claim, it shall simultaneously serve a copy of the written material on the parties and interested parties to the claim identified on the mailing list provided by the commission. (Cal. Code Regs., tit. 2, § 1181.3.)

Adaoha Agu, *County of San Diego Auditor & Controller Department*
Projects, Revenue and Grants Accounting, 5530 Overland Avenue, Ste. 410 , MS:O-53, San Diego, CA 92123
Phone: (858) 694-2129
Adaoha.Agu@sdcounty.ca.gov

Rachelle Anema, Division Chief, *County of Los Angeles*
Accounting Division, 500 W. Temple Street, Los Angeles, CA 90012
Phone: (213) 974-8321
RANEMA@auditor.lacounty.gov

Lili Apgar, Specialist, *State Controller's Office*
Local Reimbursements Section, 3301 C Street, Suite 740, Sacramento, CA 95816

Phone: (916) 324-0254
lapgar@sco.ca.gov

Socorro Aquino, *State Controller's Office*
Division of Audits, 3301 C Street, Suite 700, Sacramento, CA 95816
Phone: (916) 322-7522
SAquino@sco.ca.gov

Damien Arrula, City Administrator, *City of Placentia*
Claimant Contact
401 E. Chapman Avenue, Placentia, CA 92870
Phone: (714) 993-8171
darrula@placentia.org

Aaron Avery, Legislative Representative, *California Special Districts Association*
1112 I Street Bridge, Suite 200, Sacramento, CA 95814
Phone: (916) 442-7887
Aarona@csda.net

Ryan Baron, *Best Best & Krieger LLP*
18101 Von Karman Avenue, Suite 1000, Irvine, CA 92612
Phone: (949) 263-2600
ryan.baron@bbklaw.com

Gretchen Beatty, Acting City Manager, *City of Fullerton*
Claimant Contact
303 W. Commonwealth Ave, Fullerton, CA 92832
Phone: (714) 738-6310
citymanager@cityoffullerton.com

Ginni Bella Navarre, Deputy Legislative Analyst, *Legislative Analyst's Office*
925 L Street, Suite 1000, Sacramento, CA 95814
Phone: (916) 319-8342
Ginni.Bella@lao.ca.gov

Baron Bettenhausen, Deputy City Attorney, *Jones & Mayer Law Firm*
3777 N. Harbor Blvd, Fullerton, CA 92835
Phone: (714) 446-1400
bjb@jones-mayer.com

Cindy Black, City Clerk, *City of St. Helena*
1480 Main Street, St. Helena, CA 94574
Phone: (707) 968-2742
ctzafopoulos@cityofsthelena.org

Lisa Bond, *Richards,Watson & Gershon,LLP*
355 South Grand Avenue, 40th Floor, Los Angeles, CA 90071-3101
Phone: (213) 626-8484
lbond@rwglaw.com

Jonathan Borrego, City Manager, *City of Oceanside*
300 North Coast Highway, Oceanside, CA 92054
Phone: (760) 435-3065
citymanager@oceansideca.org

Katharine Bramble, Attorney, *State Water Resources Control Board*
Santa Ana Regional Water Quality Control Board, 1001 I Street, 22nd Floor, Sacramento, CA 95814

Phone: (916) 440-7769
Katharine.Bramble@waterboards.ca.gov

Guy Burdick, Consultant, *MGT Consulting*
2251 Harvard Street, Suite 134, Sacramento, CA 95815
Phone: (916) 833-7775
gburdick@mgtconsulting.com

Allan Burdick,
7525 Myrtle Vista Avenue, Sacramento, CA 95831
Phone: (916) 203-3608
allanburdick@gmail.com

Shelby Burguan, Budget Manager, *City of Newport Beach*
100 Civic Center Drive, Newport Beach, CA 92660
Phone: (949) 644-3085
sburguan@newportbeachca.gov

David Burhenn, *Burhenn & Gest, LLP*
Claimant Representative
12401 Wilshire Blvd, Suite 200, Los Angeles, CA 90025
Phone: (213) 629-8788
dburhenn@burhenngest.com

Rica Mae Cabigas, Chief Accountant, *Auditor-Controller*
Accounting Division, 500 West Temple Street, Los Angeles, CA 90012
Phone: (213) 974-8309
rcabigas@auditor.lacounty.gov

Evelyn Calderon-Yee, Bureau Chief, *State Controller's Office*
Local Government Programs and Services Division, Bureau of Payments, 3301 C Street, Suite 740, Sacramento, CA 95816
Phone: (916) 324-5919
ECalderonYee@sco.ca.gov

Teresa Calvert, Program Budget Manager, *Department of Finance*
915 L Street, 8th Floor, Sacramento, CA 95814
Phone: (916) 322-2263
Teresa.Calvert@dof.ca.gov

Sheri Chapman, General Counsel, *League of California Cities*
1400 K Street, Suite 400, Sacramento, CA 95814
Phone: (916) 658-8267
schapman@calcities.org

Oliver Chi, City Manager, *City of Irvine*
Claimant Contact
One Civic Center Plaza, Irvine, CA 92623-9575
Phone: (949) 724-6246
OChi@cityofirvine.org

Annette Chinn, *Cost Recovery Systems, Inc.*
705-2 East Bidwell Street, #294, Folsom, CA 95630
Phone: (916) 939-7901
achinncrs@aol.com

Carolyn Chu, Senior Fiscal and Policy Analyst, *Legislative Analyst's Office*
925 L Street, Suite 1000, Sacramento, CA 95814

Phone: (916) 319-8326
Carolyn.Chu@lao.ca.gov

Michael Coleman, *Coleman Advisory Services*
2217 Isle Royale Lane, Davis, CA 95616
Phone: (530) 758-3952
coleman@muni1.com

Tim Corbett, Deputy Director of Public Works, *County of Orange*
Public Works, 2301 North Glassell Street, Orange, CA 92865
Phone: (714) 955-0630
tim.corbett@ocpw.ocgov.com

Thomas Deak, Senior Deputy, *County of San Diego*
Office of County Counsel, 1600 Pacific Highway, Room 355, San Diego, CA 92101
Phone: (619) 531-4810
Thomas.Deak@sdcounty.ca.gov

Kalyn Dean, Senior Legislative Analyst, *California State Association of Counties (CSAC)*
Government Finance and Administration, 1100 K Street, Suite 101, Sacramento, CA 95814
Phone: (916) 327-7500
kdean@counties.org

Margaret Demauro, Finance Director, *Town of Apple Valley*
14955 Dale Evans Parkway, Apple Valley, CA 92307
Phone: (760) 240-7000
mdemauro@applevalley.org

Douglas Dennington, Attorney, *Rutan & Tucker, LLP*
611 Anton Blvd., Suite 1400, Costa Mesa, CA 92626
Phone: (714) 641-5100
ddennington@rutan.com

Paul Emery, City Manager, *City of Anaheim*
Claimant Contact
200 S. Anaheim Blvd., Suite 733, Anaheim, CA 92805
Phone: (714) 765-5162
pemery@anaheim.net

Donna Ferebee, *Department of Finance*
915 L Street, Suite 1280, Sacramento, CA 95814
Phone: (916) 445-8918
donna.ferebee@dof.ca.gov

Adam Fischer, *Santa Ana Regional Water Quality Control Board*
3737 Main Street, Suite 500, Riverside, CA 92501
Phone: (951) 320-6363
afischer@waterboards.ca.gov

Tim Flanagan, Office Coordinator, *Solano County*
Register of Voters, 678 Texas Street, Suite 2600, Fairfield, CA 94533
Phone: (707) 784-3359
Elections@solanocounty.com

Jennifer Fordyce, Assistant Chief Counsel, *State Water Resources Control Board*
Office of Chief Counsel, 1001 I Street, 22nd floor, Sacramento, CA 95814
Phone: (916) 324-6682
Jennifer.Fordyce@waterboards.ca.gov

Craig Foster, Chief Operating Officer, *Building Industry Legal Defense Foundation*
Building Association of Southern California, 17744 Sky Park Circle, Suite 170, Irvine, Irvin 92614
Phone: (949) 553-9500
cfoster@biasc.org

Aaron France, City Manager, *City of Buena Park*
Claimant Contact
6650 Beach Boulevard, Second Floor, Buena Park, CA 90621
Phone: (714) 562-3550
afrance@buenapark.com

Steve Franks, City Manager, *City of Villa Park*
Claimant Contact
17855 Santiago Blvd, Villa Park, CA 92861
Phone: (714) 998-1500
sfranks@villapark.org

Bill Gallardo, City Manager, *City of Brea*
Claimant Contact
1 Civic Center Circle, Brea, CA 92821
Phone: (714) 990-7710
billga@cityofbrea.net

Michael Gates, City Attorney, *City of Huntington Beach*
2000 Main Street, Huntington Beach, CA 92648
Phone: (714) 536-5538
Michael.Gates@huntingtonbeachca.gov

Howard Gest, *Burhenn & Gest,LLP*
12401 Wilshire Blvd, Suite 200, Los Angeles, CA 90025
Phone: (213) 629-8787
hgest@burhenngest.com

Nicholas Ghirelli, Attorney, *Richards Watson Gershon*
355 South Grand Avenue, Suite 4000, Los Angeles, CA 90071-3101
Phone: (213) 626-8484
Nghirelli@rwglaw.com

Juliana Gmur, Acting Executive Director, *Commission on State Mandates*
980 9th Street, Suite 300, Sacramento, CA 95814
Phone: (916) 323-3562
juliana.gmur@csm.ca.gov

Peter Grant, City Manager, *City of Cypress*
Claimant Contact
5275 Cypress Ave, Cypress, CA 90630
Phone: (714) 229-6700
pgrant@cypressca.org

Catherine George Hagan, Senior Staff Counsel, *State Water Resources Control Board*
c/o San Diego Regional Water Quality Control Board, 2375 Northside Drive, Suite 100, San Diego, CA 92108
Phone: (619) 521-3012
catherine.hagan@waterboards.ca.gov

Kimberly Hall-Barlow, *Jones and Mayer*
3777 N. Harbor Blvd., Fullerton, CA 92835-1366

Phone: (714) 754-5399
khb@jones-mayer.com

Heather Halsey, Executive Director, *Commission on State Mandates*
980 9th Street, Suite 300, Sacramento, CA 95814
Phone: (916) 323-3562
heather.halsey@csm.ca.gov

Andrew Hamilton, Auditor-Controller, *County of Orange*
Claimant Contact
1770 North Broadway, Santa Ana, CA 92706
Phone: (714) 834-2450
Andrew.Hamilton@ac.ocgov.com

Sunny Han, Chief Financial Officer, *City of Huntington Beach*
2000 Main Street, Huntington Beach, CA 92648
Phone: (714) 536-5630
Sunny.Han@surfcity-hb.org

Aaron Harp, *City of Newport Beach*
Office of the City Attorney, 100 Civic Center Drive, Newport Beach, CA 92660
Phone: (949) 644-3131
aharp@newportbeachca.gov

Tom Hatch, City Manager, *City of Costa Mesa*
Claimant Contact
77 Fair Drive, Costa Mesa, CA 92626
Phone: (714) 754-5000
thomas.hatch@costamesaca.gov

Steven Hauerwaas, *City of Fountain Valley*
10200 Siater Avenue, Fountain Valley, CA 92708-4736
Phone: (714) 593-4441
steve.hauerwaas@fountainvalley.org

Tom Herbel, City Engineer, *City of Huntington Beach*
Public Works Department, 2000 Main Street, Huntington Beach, CA 92648
Phone: (714) 375-5077
Tom.Herbel@surfcity-hb.org

Chris Hill, Principal Program Budget Analyst, *Department of Finance*
Local Government Unit, 915 L Street, 8th Floor, Sacramento, CA 95814
Phone: (916) 445-3274
Chris.Hill@dof.ca.gov

Michael Ho, Director of Public Works, *City of Brea*
545 Berry St., Brea, CA 92821
Phone: (714) 990-7691
michaelh@ci.brea.ca.us

Tiffany Hoang, Associate Accounting Analyst, *State Controller's Office*
Local Government Programs and Services Division, Bureau of Payments, 3301 C Street, Suite 740, Sacramento, CA 95816
Phone: (916) 323-1127
THoang@sco.ca.gov

Travis Hopkins, *City of Huntington Beach*
2000 Main Street, Huntington Beach, CA 92648

Phone: (714) 536-5437
THopkins@surfcity-hb.org

Rob Houston, City Manager, *City of Fountain Valley*
Claimant Contact
10200 Slater Avenue, Fountain Valley, CA 92708
Phone: (714) 593-4410
rob.houston@fountainvalley.org

Brian Ingallinera, Environmental Services Coordinator, *City of Brea*
1 Civic Center Circle, Brea, CA 92821
Phone: (714) 990-7672
briani@cityofbrea.net

Jill Ingram, City Manager, *City of Seal Beach*
Claimant Contact
211 8th Street, Seal Beach, CA 90740
Phone: (562) 431-2527
jingram@sealbeachca.gov

Jason Jennings, Director, *Maximus Consulting*
Financial Services, 808 Moorefield Park Drive, Suite 205, Richmond, VA 23236
Phone: (804) 323-3535
SB90@maximus.com

Angelo Joseph, Supervisor, *State Controller's Office*
Local Government Programs and Services Division, Bureau of Payments, 3301 C Street, Suite 740, Sacramento, CA 95816
Phone: (916) 323-0706
AJoseph@sco.ca.gov

Jayne Joy, Executive Officer, *Santa Ana Regional Water Quality Control Board*
3737 Main Street, Suite 500, Riverside, CA 92501-3348
Phone: (951) 782-3284
Jayne.Joy@waterboards.ca.gov

Jeremy Jungreis, Partner, *Rutan & Tucker, LLP*
611 Anton Boulevard, 14th Floor, Costa Mesa, CA 92626
Phone: (714) 641-5100
jjungreis@rutan.com

Anita Kerezsi, *AK & Company*
2425 Golden Hill Road, Suite 106, Paso Robles, CA 93446
Phone: (805) 239-7994
akcompanysb90@gmail.com

Joanne Kessler, Fiscal Specialist, *City of Newport Beach*
Revenue Division, 100 Civic Center Drive , Newport Beach, CA 90266
Phone: (949) 644-3199
jkessler@newportbeachca.gov

Lisa Kurokawa, Bureau Chief for Audits, *State Controller's Office*
Compliance Audits Bureau, 3301 C Street, Suite 700, Sacramento, CA 95816
Phone: (916) 327-3138
lkurokawa@sco.ca.gov

Claudia Landeras-Sobaih, Principal Plan Check Engineer, *City of Irvine*
One Civic Center Plaza, PO Box 19575, Irvine, Irvin 92623

Phone: (949) 724-6330
CLanderas-Sobaih@cityofirvine.org

Michael Lauffer, Chief Counsel, *State Water Resources Control Board*
1001 I Street, 22nd Floor, Sacramento, CA 95814-2828
Phone: (916) 341-5183
michael.lauffer@waterboards.ca.gov

Eric Lawyer, Legislative Advocate, *California State Association of Counties (CSAC)*
Government Finance and Administration, 1100 K Street, Suite 101, Sacramento, CA 95814
Phone: (916) 650-8112
elawyer@counties.org

Kim-Anh Le, Deputy Controller, *County of San Mateo*
555 County Center, 4th Floor, Redwood City, CA 94063
Phone: (650) 599-1104
kle@smcgov.org

Candice Lee, *Richards,Watson & Gershon,LLP*
355 South Grand Avenue, 40th Floor, Los Angeles, CA 90071
Phone: (213) 626-8484
clee@rwglaw.com

Fernando Lemus, Principal Accountant - Auditor, *County of Los Angeles*
Auditor-Controller's Office, 500 West Temple Street, Room 603, Los Angeles, CA 90012
Phone: (213) 974-0324
flemus@auditor.lacounty.gov

Grace Leung, City Manager, *City of Newport Beach*
100 Civic Center Drive, Newport Beach, CA 92660
Phone: (949) 644-3001
gleung@newportbeachca.gov

Erika Li, Chief Deputy Director, *Department of Finance*
915 L Street, 10th Floor, Sacramento, CA 95814
Phone: (916) 445-3274
erika.li@dof.ca.gov

Shally Lin, Director of Finance - Interim, *City of Fountain Valley*
10200 Slater Avenue, Fountain Valley, CA 92708
Phone: (714) 593-4418
Shally.Lin@fountainvalley.org

Keith Linker, *City of Anaheim*
Public Works, 200 S. Anaheim Boulevard, Anaheim, CA 92805
Phone: (714) 765-5148
KLinker@anaheim.net

Thomas Lo, Water Quality Administrator, *City of Irvine*
One Civic Center Plaza, PO Box 19575, Irvine, CA 92623
Phone: (949) 724-6315
tlo@cityofirvine.org

Diego Lopez, Consultant, *Senate Budget and Fiscal Review Committee*
1020 N Street, Room 502, Sacramento, CA 95814
Phone: (916) 651-4103
Diego.Lopez@sen.ca.gov

Everett Luc, Accounting Administrator I, Specialist, *State Controller's Office*
3301 C Street, Suite 740, Sacramento, CA 95816
Phone: (916) 323-0766
ELuc@sco.ca.gov

Jill Magee, Program Analyst, *Commission on State Mandates*
980 9th Street, Suite 300, Sacramento, CA 95814
Phone: (916) 323-3562
Jill.Magee@csm.ca.gov

Darryl Mar, Manager, *State Controller's Office*
3301 C Street, Suite 740, Sacramento, CA 95816
Phone: (916) 323-0706
DMar@sco.ca.gov

Tina McKendell, *County of Los Angeles*
Auditor-Controller's Office, 500 West Temple Street, Room 603, Los Angeles, CA 90012
Phone: (213) 974-0324
tmckendell@auditor.lacounty.gov

Michelle Mendoza, *MAXIMUS*
17310 Red Hill Avenue, Suite 340, Irvine, CA 95403
Phone: (949) 440-0845
michellemendoza@maximus.com

Jim Merid, Environmental Services Manager, *City of Huntington Beach*
Public Works Department, 2000 Main Street, Huntington Beach, CA 92648
Phone: (714) 374-1548
JMerid@surfcity-hb.org

Mina Mikhael, Interim Director of Public Works, *City of Buena Park*
6650 Beach Boulevard, Buena Park, CA 90621
Phone: (714) 562-3670
mmikhael@buenapark.com

Andre Monette, Partner, *Best Best & Krieger, LLP*
2000 Pennsylvania NW, Suite 5300, Washington, DC 20006
Phone: (202) 785-0600
andre.monette@bbklaw.com

Jill Moya, Financial Services Director, *City of Oceanside*
300 North Coast Highway, Oceanside, CA 92054
Phone: (760) 435-3887
jmoya@oceansideca.org

Marilyn Munoz, Senior Staff Counsel, *Department of Finance*
915 L Street, Sacramento, CA 95814
Phone: (916) 445-8918
Marilyn.Munoz@dof.ca.gov

Steve Myrter, Director of Public Works, *City of Seal Beach*
211 Eighth Street, Seal Beach, CA 90740
Phone: (562) 431-2527
smyrter@sealbeachca.gov

Kaleb Neufeld, Assistant Controller, *City of Fresno*
2600 Fresno Street, Fresno, CA 93721

Phone: (559) 621-2489
Kaleb.Neufeld@fresno.gov

Gregory Newmark, *Meyers Nave*
707 Wilshire Blvd., 24th Floor, Los Angeles , CA 90017
Phone: (213) 626-2906
gnewmark@meyersnave.com

Andy Nichols, *Nichols Consulting*
1857 44th Street, Sacramento, CA 95819
Phone: (916) 455-3939
andy@nichols-consulting.com

Adriana Nunez, Staff Counsel, *State Water Resources Control Board*
Los Angeles Regional Water Quality Control Board, 1001 I Street, 22nd Floor, Sacramento, CA 95814
Phone: (916) 322-3313
Adriana.Nunez@waterboards.ca.gov

Eric Oppenheimer, Executive Director, *State Water Resources Control Board*
1001 I Street, 22nd Floor, Sacramento, CA 95814-2828
Phone: (916) 341-5615
eric.oppenheimer@waterboards.ca.gov

Patricia Pacot, Accountant Auditor I, *County of Colusa*
Office of Auditor-Controller, 546 Jay Street, Suite #202 , Colusa, CA 95932
Phone: (530) 458-0424
ppacot@countyofcolusa.org

Leon Page, County Counsel, *333 W. Santa Ana Blvd.*
, Santa Ana, CA 92702
Phone: (714) 834-3303
leon.page@coco.ocgov.com

Arthur Palkowitz, *Law Offices of Arthur M. Palkowitz*
12807 Calle de la Siena, San Diego, CA 92130
Phone: (858) 259-1055
law@artpalk.onmicrosoft.com

Kirsten Pangilinan, Specialist, *State Controller's Office*
Local Reimbursements Section, 3301 C Street, Suite 740, Sacramento, CA 95816
Phone: (916) 322-2446
KPangilinan@sco.ca.gov

Johnnie Pina, Legislative Policy Analyst, *League of Cities*
1400 K Street, Suite 400, Sacramento, CA 95814
Phone: (916) 658-8214
jpina@cacities.org

Jai Prasad, *County of San Bernardino*
Office of Auditor-Controller, 222 West Hospitality Lane, 4th Floor, San Bernardino, CA 92415-0018
Phone: (909) 386-8854
jai.prasad@sbcountyatc.gov

Jonathan Quan, Associate Accountant, *County of San Diego*
Projects, Revenue, and Grants Accounting, 5530 Overland Ave, Suite 410, San Diego, CA 92123
Phone: 6198768518
Jonathan.Quan@sdcounty.ca.gov

Roberta Raper, Director of Finance, *City of West Sacramento*
1110 West Capitol Ave, West Sacramento, CA 95691
Phone: (916) 617-4509
robertar@cityofwestsacramento.org

David Rice, *State Water Resources Control Board*
1001 I Street, 22nd Floor, Sacramento, CA 95814
Phone: (916) 341-5161
david.rice@waterboards.ca.gov

Elsa Robinson, *City of Placentia*
401 East Chapman Avenue, Placentia, CA 92870
Phone: (714) 993-8148
erobinson@placentia.org

Debra Rose, City Manager, *City of Lake Forest*
Claimant Contact
100 Civic Center Drive, Lake Forest, CA 92630
Phone: (949) 461-3400
drose@lakeforestca.gov

Teresita Sablan, *State Water Resources Control Board*
Santa Ana Regional Water Quality Control Board and San Francisco Bay Regional Water Quality Control Board, 1001 I Street, 22nd Floor, Sacramento, CA 95814
Phone: (916) 341-5174
Teresita.Sablan@waterboards.ca.gov

Jessica Sankus, Senior Legislative Analyst, *California State Association of Counties (CSAC)*
Government Finance and Administration, 1100 K Street, Suite 101, Sacramento, CA 95814
Phone: (916) 327-7500
jsankus@counties.org

Michaela Schunk, Legislative Coordinator, *California State Association of Counties (CSAC)*
1100 K Street, Suite 101, Sacramento, CA 95814
Phone: (916) 327-7500
mschunk@counties.org

Cindy Sconce, Director, *MGT*
Performance Solutions Group, 3600 American River Drive, Suite 150, Sacramento, CA 95864
Phone: (916) 276-8807
csconce@mgtconsulting.com

Raja Sethuraman, Director of Public Works, *City of Costa Mesa*
Department of Public Works, 77 Fair Drive, Costa Mesa, CA 92628
Phone: (714) 754-5343
raja.sethuraman@costamesaca.gov

Carla Shelton, *Commission on State Mandates*
980 9th Street, Suite 300, Sacramento, CA 95814
Phone: (916) 323-3562
carla.shelton@csm.ca.gov

Camille Shelton, Chief Legal Counsel, *Commission on State Mandates*
980 9th Street, Suite 300, Sacramento, CA 95814
Phone: (916) 323-3562
camille.shelton@csm.ca.gov

Wayne Shimabukuro, *County of San Bernardino*
Auditor/Controller-Recorder-Treasurer-Tax Collector, 222 West Hospitality Lane, 4th Floor, San Bernardino, CA 92415-0018
Phone: (909) 386-8850
wayne.shimabukuro@atc.sbcounty.gov

Jennifer Shook, *County of Orange - OC Public Works Department*
OC Watersheds Program - Stormwater External, 2301 N. Glassell Street, Orange, CA 92865
Phone: (714) 955-0671
jennifer.shook@ocpw.ocgov.com

Natalie Sidarous, Chief, *State Controller's Office*
Local Government Programs and Services Division, 3301 C Street, Suite 740, Sacramento, CA 95816
Phone: 916-445-8717
NSidarous@sco.ca.gov

Mike Smith, Water Quality Manager, *City of Cypress*
5275 Orange Avenue, Cypress, CA 90630
Phone: (714) 229-6752
waterquality@cypressca.org

Cristina Talley, City Attorney, *City of Anaheim*
200 S. Anaheim Boulevard #356, Anaheim, CA 92805
Phone: (714) 765-5169
CTalley@anaheim.net

Jolene Tollenaar, *MGT Consulting Group*
2251 Harvard Street, Suite 134, Sacramento, CA 95815
Phone: (916) 243-8913
jolenetollenaar@gmail.com

James Treadaway, Director of Public Works, *County of Orange*
300 North Flower Street, Santa Ana, CA 92703
Phone: (714) 667-9700
James.Treadaway@ocpw.ocgov.com

Brian Uhler, Principal Fiscal & Policy Analyst, *Legislative Analyst's Office*
925 L Street, Suite 1000, Sacramento, CA 95814
Phone: (916) 319-8328
Brian.Uhler@LAO.CA.GOV

Travis Van Ligten, Associate, *Rutan & Tucker, LLP*
611 Anton Blvd, Suite 1400, Costa Mesa, CA 92626
Phone: (714) 641-5100
tvanligten@rutan.com

Antonio Velasco, Revenue Auditor, *City of Newport Beach*
100 Civic Center Drive, Newport Beach, CA 92660
Phone: (949) 644-3143
avelasco@newportbeachca.gov

Emel Wadhwani, Senior Staff Counsel, *State Water Resources Control Board*
Office of Chief Counsel, 1001 I Street, Sacramento, CA 95814
Phone: (916) 322-3622
emel.wadhwani@waterboards.ca.gov

Ada Waelder, Legislative Analyst, Government Finance and Administration, *California State Association of Counties (CSAC)*
1100 K Street, Suite 101, Sacramento, CA 95814
Phone: (916) 327-7500
awaelder@counties.org

David Webb, *City of Newport Beach*
100 Civic Center Drive, Newport Beach, CA 92660
Phone: (949) 644-3328
dwebb@newportbeachca.gov

Renee Wellhouse, *David Wellhouse & Associates, Inc.*
3609 Bradshaw Road, H-382, Sacramento, CA 95927
Phone: (916) 797-4883
dwa-renee@surewest.net

Tom Wheeler, Director of Public Works, *City of Lake Forest*
100 Civic Center Drive, Lake Forest, CA 92630
Phone: (949) 461-3480
twheeler@lakeforestca.gov

Adam Whelen, Director of Public Works, *City of Anderson*
1887 Howard St., Anderson, CA 96007
Phone: (530) 378-6640
awhelen@ci.anderson.ca.us

Colleen Winchester, Senior Deputy City Attorney, *City of San Jose*
200 East Santa Clara Street, 16th Floor, San Jose, CA 95113
Phone: (408) 535-1987
Colleen.Winchester@sanjoseca.gov

Jacqueline Wong-Hernandez, Deputy Executive Director for Legislative Affairs, *California State Association of Counties (CSAC)*
1100 K Street, Sacramento, CA 95814
Phone: (916) 650-8104
jwong-hernandez@counties.org

Julia Woo, Deputy County Counsel, *County of Orange*
333 West Santa Ana Blvd, Suite 407, Santa Ana, CA 92701
Phone: (714) 834-6046
julia.woo@coco.ocgov.com

Elisa Wynne, Staff Director, *Senate Budget & Fiscal Review Committee*
California State Senate, State Capitol Room 5019, Sacramento, CA 95814
Phone: (916) 651-4103
elisa.wynne@sen.ca.gov

Kaily Yap, Budget Analyst, *Department of Finance*
Local Government Unit, 915 L Street, Sacramento, CA 95814
Phone: (916) 445-3274
Kaily.Yap@dof.ca.gov

Juan Zavala, Principal Engineer, *City of Fullerton*
Public Works, 303 West Commonwealth Avenue, Fullerton, CA 92832
Phone: (714) 738-6845
Juan.Zavala@cityoffullerton.com

Al Zelinka, City Manager, *City of Huntington Beach*
Claimant Contact
2000 Main St, Huntington Beach, CA 92648
Phone: (714) 375-8465
Al.Zelinka@surfcity-hb.org

Helmholst Zinser-Watkins, Associate Governmental Program Analyst, *State Controller's Office*
Local Government Programs and Services Division, Bureau of Payments, 3301 C Street, Suite 700, Sacramento, CA 95816
Phone: (916) 324-7876
HZinser-watkins@sco.ca.gov

Exhibit C

BURHENN & GEST LLP
624 SOUTH GRAND AVENUE
SUITE 2200
LOS ANGELES, CALIFORNIA 90017-3321
(213) 688-7715
FACSIMILE (213) 624-1376
WWW.BURHENNGEST.COM

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November 4, 2022
Commission on
State Mandates

WRITER'S DIRECT NUMBER
(213) 629-8788

WRITER'S E-MAIL ADDRESS
dburhenn@burhenngest.com

November 4, 2022

Via Drop Box

Ms. Heather Halsey
Executive Director
Commission on State Mandates
980 9th Street, Suite 300
Sacramento, CA 95814

Re: Claimants' Comments on Draft Proposed Decision on *California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2009-0030, Sections IX, X, XI, XII, XIII and XVII*, 09-TC-03

Dear Ms. Halsey:

Attached please see the comments of Claimants County of Orange, Orange County Flood Control District and the Cities of Anaheim, Brea, Buena Park, Costa Mesa, Cypress, Fountain Valley, Fullerton, Huntington Beach, Irvine, Lake Forest, Newport Beach, Placentia, Seal Beach, and Villa Park ("Claimants") on the Draft Proposed Decision issued by Commission staff on the above-referenced Joint Test Claim. The documents enclosed consist of the Comments and declarations and exhibits in support thereof.

Please let me know if you have any questions. Thank you.

I declare under penalty of perjury that the foregoing, signed on November 4, 2022, is true and correct to the best of my personal knowledge, information, or belief.

David W. Burhenn
Claimant Representative
Address, phone and e-mail set forth above

CLAIMANTS' COMMENTS ON DRAFT PROPOSED DECISION

***California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2009-0030, Sections IX, X, XI, XII, XIII, and XVIII,* 09-TC-03, Santa Ana Regional Water Quality Control Board, Resolution No. R8-2009-0030, adopted May 22, 2009**

CLAIMANTS' COMMENTS ON DRAFT PROPOSED DECISION

***California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2009-0030, Sections IX, X, XI, XII, XIII, and XVIII,* 09-TC-03, Santa Ana Regional Water Quality Control Board, Resolution No. R8-2009-0030, adopted May 22, 2009**

Claimants County of Orange, Orange County Flood Control District and the Cities of Anaheim, Brea, Buena Park, Costa Mesa, Cypress, Fountain Valley, Fullerton, Huntington Beach, Irvine, Lake Forest, Newport Beach, Placentia, Seal Beach, and Villa Park ("Claimants") herewith submit their comments on the Draft Proposed Decision ("Proposed Draft") issued by staff of the Commission on State Mandates ("Commission") on August 17, 2022 regarding the above-referenced test claim ("Test Claim").

Claimants disagree with the Proposed Draft's conclusion that the Commission should deny the Test Claim in its entirety. That conclusion reflects errors in an understanding of both the legal and factual basis for the Claimants' Test Claim and also in assessing the funding allegedly available to pay for the mandates contained in Order No. R8-2009-0030 (the "2009 Permit") issued by the California Regional Water Quality Control Board, Santa Ana Region ("Santa Ana Water Board").

Each section of the 2009 Permit at issue in the Test Claim will be discussed in the order presented in the Proposed Draft.[1] Claimants submit that the arguments and evidence submitted in support of the Test Claim establish that all still-relevant elements of the Test Claim should be approved.

I. SUMMARY OF COMMENTS

Claimants' Comments will cover the following areas:

- Section II, Background: This section discusses key authority that must inform the decision of the Commission on the Test Claim.

- Section III.A: This section provides specific information on the dates that Claimants first incurred costs under the 2009 Permit.

- Section III.B: This section, concerning the provisions in 2009 Permit Section XVIII, shows that the requirements associated with Total Maximum Daily Loads ("TMDLs") are not federal mandates because the requirement to comply with water quality standards, which the TMDLs are intended to achieve, do not apply to MS4 permittees. This analysis extends to the wasteload allocations established in the TMDLs which, because they also require compliance with such standards, are state-mandated requirements. Similarly, the requirement in the 2009 Permit that permittees attain numeric effluent limitations also is a state mandate, and such limitations cannot be attained through an "iterative process" but rather are required by the permit. In

[1] These comments address the conclusions set forth in the Proposed Draft (pages 30-199) and to avoid repetition, do not separately address those in the Executive Summary (Proposed Draft at 1-29). To the extent required, the arguments and evidence set forth in the Comments are similarly directed to the conclusions in the Executive Summary.

addition, the requirements in Section XVIII are both new to the 2009 Permit and require a higher level of service as a matter law and fact. Such requirements are also not "de minimis." Finally, the conclusion in the Proposed Draft that requirements in Section XVIII are not unique to local government and thus not a "program" is wrong, because the requirements both provide a service to the public, pollution reduction, and are unique to Claimants. Thus, such requirements constitute a "program" within the meaning of Calif. Const. article XIII B, section 6.

- Section III.C.: This section, concerning the provisions in 2009 Permit Section XII to incorporate Low Impact Development (LID) and hydromodification principles in "priority development projects," demonstrates both that the Section XII requirements are unique to local government because permittees are practically compelled to deliver certain public projects and that the Proposed Draft overlooked requirements for the permittees to develop planning criteria for the incorporation of those principles.

- Section III.D: This section, concerning the provisions in 2009 Permit Section XI regarding residential areas, demonstrates that in addition to the provision found by the Proposed Draft to represent an unfunded mandate, other requirements in Section XI also represent such a mandate, in that the Santa Ana Water Board made the "true choice" to impose them in the permit

- Section III.E: This section, concerning public education and outreach requirements in Section XIII of the 2009 Permit, agrees with the Proposed Draft's identification of state mandates but notes that other requirements are "new" because Claimants were not able to challenge similar requirements in the previous 2002 Permit.

- Section III.F: In this section, concerning inspection requirements in Section X and XI of the 2009 Permit, Claimants concur with the analysis in the Proposed Draft.

- Section IV.A: While Claimants dispute the assertion that the Test Claim did not contain sufficient evidence to show that the mandates were paid for by using "proceeds of taxes," this section sets forth yet more substantial evidence that Claimants utilized such funds (e.g., general fund and gas tax revenue) to pay for requirements at issue in the Test Claim. This is evidenced by not only the declarations of Claimant representatives but by contemporaneous documentation, required by the 2009 Permit, identifying the source of funding used by Claimants.

- Section IV.B: This section addresses the inability of Claimants to recover regulatory or development fees for the cost of development planning requirements for the incorporation of LID and hydromodification principles in private priority development projects, and also addresses the lack of fee authority for other requirements identified as state mandates by Claimants in Section III of the Comments.

- Section IV.C: This section addresses the validity of legislation, Senate Bill 231 ("SB 231"), purporting to overturn a case holding that the exception from the majority voter requirement in Calif. Const. article XIII D, section 6 for "sewer services" did not apply to stormwater facilities. The section shows that SB 231 should not be relied upon to deny Claimants a subvention of funds for costs incurred after January 1, 2018, the effective of the statute. The plain language and structure of Proposition 218, which incorporated article XIII D into the Constitution, reflected voters' intent to limit the term "sewer" to sanitary sewers, and not storm drainage. In addition, the Legislature's historical justification for SB 231 does not support it, given that the meaning of "sewer" in statutes and cases before Proposition 218 referred to sanitary sewers.

II. COMMENTS ON "BACKGROUND" SECTION OF PROPOSED DRAFT: THE 2009 PERMIT CAN AND DOES IMPOSE MANDATES THAT GO BEYOND THE MEP STANDARD OF COMPLIANCE

The discussion in the "Background" section of the Proposed Draft (Proposed Draft at 41-68) is, in Claimants' view, incomplete. While the discussion notes in passing that operators of municipal separate storm sewer systems ("MS4s") covered by a National Pollutant Discharge Elimination System ("NPDES) permit are only required to reduce pollutant discharges "to the maximum extent practicable" (Proposed Draft at 44-45), there is no further discussion as to how the Clean Water Act ("CWA") leaves substantial discretion to the states in adopting permit requirements."

This distinction was at the heart of *Defenders of Wildlife v. Browner*,[2] which addressed whether MS4 operators were subject to the strict compliance with water quality standards mandated by the Clean Water Act for industrial dischargers in 33 U.S.C. section 1311. The Ninth Circuit found they were not, holding that in adopting Section 1342(p)(3)(B) (the subsection relating to municipal discharges), Congress "*replaces* the requirements of § 1311 with the requirement that municipal storm-sewer dischargers 'reduce the discharge of pollutants to the maximum extent practicable . . . .'"[3]

Defenders also held that the Environmental Protection Agency ("EPA") Administrator or a state authorized (like California) to carry out the NPDES program pursuant to 33 U.S.C. § 1342(a)(5) has the *discretion* to impose "such other provisions" as the Administrator or the state determines appropriate for the control of such pollutants. As the court held, "[t]hat provision gives the EPA discretion to determine what pollution controls are appropriate."[4]

Armed with such discretion, a state like California can tailor its MS4 permits to require strict compliance with water quality standards or adopt other MS4 permit requirements that go beyond the MEP standard. The California Supreme Court recognized the dual nature of NPDES permitting in its decision in *City of Burbank v. State Water Resources Control Board*,[5] where it held that more stringent permit requirements issued under the authority of the Porter-Cologne

[2] 191 F.3d 1159 (9th Cir. 1999).

[3] 191 F.3d at 1165 (emphasis in original).

[4] 191 F.3d at 1166.

[5] (2005) 35 Cal.4th 613.

Water Quality Act[6] in an NPDES permit required evaluation of state requirements under Water Code §§ 13240 and 13241.[7]

The question of whether such state mandated requirements were subject to state constitutional requirements, and in particular article XIII B, section 6 of the California Constitution, was answered by the Supreme Court in *Department of Finance v. Commission*,[8] which held that certain state-mandated provisions in the 2001 Los Angeles County MS4 permit in fact constituted state mandates eligible for subvention under article XIII B, section 6. In so doing, the Court expressly rejected the argument raised by the Department of Finance ("DOF") and the Water Boards that because a provision was in a stormwater NPDES permit, it was "ipso facto, required by federal law."[9]

Claimants recognize that the Proposed Draft later cites and relies upon *Department of Finance* in its analysis of the Test Claim. Claimants submit, however, that this case and the others cited above, provide additional and legal background for the analysis presented in the Commission's decision and should be included in the Background section of the Proposed Draft.

III. COMMENTS ON DISCUSSION SECTION OF PROPOSED DRAFT

A. Jurisdiction over Test Claim

Claimants agree with the conclusions in Proposed Draft Sections IV.A.1 and 2 that the Commission has jurisdiction over this Test Claim. Claimants, however, wish to correct one statement regarding the timely filing of the Test Claim, where it is stated that "[t]he claimants state that they first incurred costs under the permit during fiscal year 2009-2010. Few specific dates of first-incurred costs are provided . . . ." Proposed Draft at 96. In fact, declarations submitted with the 2016 re-filing of the Test Claim included numerous specific dates as to first occurrence of costs, especially where those costs were associated with programs administered by the Orange County Stormwater Program, which invoiced cities as to the costs of those programs. *See, e.g.,* Declaration of Thomas Lo on Behalf of City of Irvine, pages 2-5, 7 (filed December 19, 2016). Other Claimant declarations include similar detail.

B. Total Maximum Daily Load Requirements in 2009 Permit Section XVIII

1. TMDL Provisions at Issue

Section XVIII of the 2009 Permit sets forth multiple requirements that Claimants must implement with respect to those TMDLs applicable to the waterbodies covered by the Permit. Claimants seek reimbursement for the following 2009 Permit TMDL requirements:

a. Compliance with the wasteload allocations ("WLAs") specified in United States EPA promulgated TMDLs and in Tables 1A/B/C, 2A/B/C/D and 3 for metals (cadmium, copper, lead, zinc, mercury and chromium) in San Diego Creek, Newport Bay and the Rhine Channel; organochlorine compounds (DDT, chlordane, dieldrin, PCBs and toxaphene) in San Diego Creek, Upper and Lower Newport Bay and the Rhine Channel; and selenium in San

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[6] Water Code § 13000 *et seq.*

[7] *City of Burbank,* 35 Cal. 4th at 618.

[8] (2015) 1 Cal. 5th 749.

[9] 1 Cal. 5th at 768.

Diego Creek, by monitoring in receiving waters for these compounds and, if the monitoring results indicate an exceedance of WLAs, to implement new or revised Best Management Practices (BMPs) to address these exceedances (Section XVIII.B.4).

b. Prepare a Cooperative Watershed Program ("CWP") to fulfill the requirements of the selenium TMDL implementation plan (Section XVIII.B.8).

c. Implement the CWP for selenium in San Diego Creek and Newport Bay (Section XVIII.B.8).

d. Develop and implement a "constituent-specific source control plan" for copper, lead, and zinc, including a monitoring program, for discharges tributary to the San Gabriel River and Coyote Creek, until a TMDL implementation plan is developed (Section XVIII.B.9).

e. Comply with WLAs for fecal coliform in discharges to Newport Bay, as measured at monitoring locations with San Diego Creek and Newport Bay (Section XVIII.C.1).

f. Comply with WLAs for diazinon and chlorpyrifos in discharges to San Diego Creek and WLAs for chlorpyrifos in discharges in Upper Newport Bay (Permit Section XVIII.D.1).

The Proposed Draft finds that the requirement to prepare a CWP for selenium constitutes a state-mandated new program or higher level of service. Proposed Draft at 122-23. With respect to the other TMDL obligations, however, the Proposed Draft concludes that they are not. The Proposed Draft is correct with respect to the selenium CWP but errs with respect to the other TMDL obligations.

2. The Proposed Draft Correctly Concludes that the Requirement to Submit a CWP to Fulfill the Requirements of the Selenium TMDL Implementation Plan Is a State-Mandated New Program or Higher Level of Service

The Proposed Draft (at 122) correctly concludes that the obligation to develop and submit a CWP to fulfill applicable requirements of the selenium TMDL implementation plan is a state mandate. No federal statute or regulation required the preparation of the CWP or the implementation plan itself. Instead, this requirement was imposed by the Water Board in an exercise of State discretion. If a permit requirement is not compelled by federal law, but is imposed by the state as a matter of discretion, it is a state mandate.[10] The Proposed Draft also correctly concluded that the CWP requirement constituted a new program or higher level of service (Proposed Draft at 122-23). It was new, not having been required of permittees before, and was uniquely imposed on the MS4 permittees. It is thus a new program or higher level of service.[11]

[10] *Dept. of Finance,* 1 Cal. 5th at 765.

[11] *County of Los Angeles v. State of California* (1987) 43 Cal. 3d 46, 56.

The Proposed Draft, however, concludes that other requirements in 2009 Permit Section XVIII at issue in the Test Claim do not constitute a state mandate. Proposed Draft at 123-27. The following sections address those conclusions.

3. The Requirements in Sections XVIII.B.4, XVIII.B.8, XVIII.B.9, XVIII.C.1 and XVIII.D.1 to Monitor and to Implement BMPs to Meet the TMDL WLAs Are Reimbursable State Mandates, Not Required by Federal Law

The Proposed Draft concludes that the above-referenced subsections of 2009 Permit Section XVIII are in fact federal mandates, and that the San Diego Water Board "did not have the power or discretion to ignore the WLAs adopted in the TMDLs. Federal law requires the Regional Board to take some action to include effluent limitations consistent with the WLAs in those TMDLs when reissuing the permit." Proposed Draft at 124. This conclusion is incorrect, as the requirement for Claimants to comply with numeric water quality standards imposed by TMDLs and the WLAs contained therein is in fact a discretionary decision by the Santa Ana Water Board and, under controlling mandates authority, is a state, not federal, mandate.

a. TMDLs, Including the WLAs Incorporated Therein, are Adopted to Attain Compliance with Water Quality Standards

The CWA requires states to adopt "water quality standards" for "waters of the United States" that exist within the state.[12] Water quality standards set forth the designated use or uses to be made of a waterbody (termed "beneficial uses" in California Water Code § 13050) and the criteria that protect those designated uses.[13] A water quality standard for a particular pollutant in a waterbody sets forth the criteria, i.e., the amount of that pollutant, that can be present in the waterbody without impairing a designated use.[14]

Under the CWA, a state is also required to identify those water bodies for which effluent limitations are not stringent enough to result in the waterbody meeting its water quality standards.[15] These water bodies are known as "water quality limited segments" or "impaired" waterbodies.[16] A TMDL is a planning device that sets forth the amount of a pollutant allowable in a waterbody that will allow that waterbody to attain and maintain water quality standards necessary to support the waterbody's beneficial uses.[17] As the Proposed Draft recognizes (at 47-48), TMDLs are adopted for the purpose of meeting water quality standards.

A TMDL must be established for each pollutant causing the impairment in each impaired waterbody at a level "necessary to attain and maintain the applicable narrative and numerical *WQS [water quality standard]* with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and

[12] 33 U.S.C. § 1313(a) and (c).

[13] 33 U.S.C. § 1313(c)(2)(A); 40 CFR §§ 131.2 and 131.3(i).

[14] 40 Code of Federal Regulations ("CFR") § 131.3(b).

[15] 33 U.S.C. § 1313(d).

[16] 40 CFR §§ 130.2(j) and 131.3(h).

[17] 40 CFR §§ 130.2(i) and 130.7(c)(1); *see* Proposed Draft at 48.

water quality. Determinations of TMDLs shall take into account critical conditions for stream flow, loading, and *water quality parameters*."[18]

A TMDL is "[t]he sum of the individual WLAs for point sources and LAs [Load Allocations] for nonpoint sources and natural background."[19] A WLA, in turn, is "[t]he portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution."[20] A LA is "[t]he portion of a receiving water's loading capacity that is attributed either to one of its existing or future nonpoint sources of pollution or to natural background sources."[21] "Loading capacity" is "[t]he greatest amount of loading that a water can receive *without violating water quality standards*."[22]

By definition, therefore, TMDLs and their WLAs are adopted "to attain and maintain" water quality standards.

b. MS4 Permittees Are Not Required to Attain Water Quality Standards and the Inclusion of TMDLs and WLAs in MS4 Permits Such as the 2009 Permit, is Not Mandated by Federal Law but is a Discretionary Decision by the Santa Ana Water Board

The Proposed Draft's conclusion that the obligations to monitor, implement BMPs, and revise those BMPs to comply with numeric WLAs are federal, not state, mandates is premised on the erroneous assumption that federal law, specifically 40 CFR § 122.44(d)(1)(vii), *requires* the Santa Ana Water Board to include in the 2009 Permit effluent limitations consistent with the WLAs in those TMDLs. Proposed Draft at 101, 123.

This conclusion is in error. It is well established that, in contrast to industrial stormwater dischargers such as oil refineries or chemical plants, the CWA does not *require* municipal stormwater permittees, such as Claimants, to meet water quality standards, and also does not mandate that municipal stormwater permittees be subject to the mechanisms (including WLAs) adopted to achieve those water quality standards.[23]

The Ninth Circuit held in *Defenders, supra,* that while Congress imposed this obligation on industrial stormwater dischargers, it specifically exempted municipal stormwater dischargers:

> Industrial storm-water discharges *"shall . . . achieve . . . any more stringent limitation,* including those necessary to meet water quality standards . . .
>
> Congress chose not to include a similar provision for municipal storm-sewer discharges. Instead, Congress required municipal storm-sewer discharges to "reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering

[18] 40 CFR § 130.7(c)(1) (emphasis added).

[19] 40 CFR § 130.2(i).

[20] 40 CFR § 130.2(h).

[21] 40 CFR § 130.2(g).

[22] 40 CFR § 130.2(f) (emphasis added).

[23] See, e.g. *Defenders, supra,* 191 F.3d 1159, 1165; *Building Industry Assn. of San Diego v. State Water Resources Control Board* (2004) (*"BIA"*) 124 Cal.App.4th 866, 886.

> methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants." 33 U.S.C. § 1342(p)(3)(B)(iii).

Defenders, 191 F.3d at 1164-65.

The State Water Resources Control Board ("State Board") itself recognized that the requirement to comply with water quality standards in MS4 permits is imposed as a matter of discretion. In *In the Matter of Review of Order No. R4-2012-0175, NPDES Permit No. CAS004001, Waste Discharge Requirements For Municipal Separate Storm Sewer System (MS4) Discharges Within the Coastal Watersheds of Los Angeles County, Except Those Discharges Originating From the City of Long Beach MS4*, State Board Order WQ 2015-0075 (June 16, 2015) ("Order WQ 2015-0075"), which addressed the issue of whether an iterative, BMP-based process in an MS4 permit could constitute compliance with water quality standards (there, compliance with receiving water limitations imposed in the 2012 Los Angeles MS4 permit), the State Board found that:

> In the context of NPDES permits for MS4s, however, the Clean Water Act does not explicitly reference the requirement to meet water quality standards. MS4 discharges must meet a technology-based standard of prohibiting non-storm water discharges and reducing pollutants in the discharge to the Maximum Extent Practicable (MEP) in all cases, *but requiring strict compliance with water quality standards (e.g., by imposing numeric effluent limitations) is at the discretion of the permitting agency.*"

Id. at 10 (emphasis added).[24]

There is thus no federal mandate for MS4 permits to impose requirements for permittees to strictly comply with water quality standards. Any such requirements are imposed as a matter of discretion. *A fortiori*, this principle applies to the imposition of a permit requirement to comply with any vehicle to achieve those water quality standards, including TMDL WLAs, since WLAs are a component of TMDLs and are adopted "to attain and maintain the applicable narrative and numerical *WQS [water quality standard].*"[25] In other words, if federal law does not require MS4 discharges to comply with water quality standards, then federal law also does not require MS4 dischargers to comply with permit requirements, such as WLAs, designed to attain those standards. Any requirement to do so is imposed as a matter of discretion by the permitting authority, here the Santa Ana Water Board.

The Proposed Draft concludes, however, that one federal regulation issued under the authority of the CWA, 40 CFR § 122.44(d)(1)(vii)((B), which addresses compliance with water quality standards through TMDLs, requires MS4 permittees to comply with WLAs as a matter of federal law. *See* Proposed Draft at 123 ("the Regional Board . . . did not have the power or

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[24] A copy of relevant portions of Order WQ 2015-0075 is attached as Exhibit 1 to the Declaration of David W. Burhenn filed herewith ("Burhenn Decl."). The Commission is requested to take administrative notice of such memoranda pursuant to Evidence Code § 452(c) as an "official act of the . . . executive . . . .departments of . . . any state of the United States"; Govt. Code § 11515; and Cal. Code Regs., tit. 2, § 1187.5(c).

[25] 40 CFR § 130.7(c)(1) (emphasis added)

discretion to ignore the WLAs adopted in the TMDLs." (*citing* 40 CFR § 122.44(d)(1)(vii)). This conclusion is incorrect for several reasons.

First, the conclusion is inconsistent with the governing law and regulations discussed above. If compliance with water quality standards is not required of MS4 permittees, a regulation purporting to require such compliance is similarly inapplicable to MS4 permits. The courts and the State Board could not have concluded that MS4 discharges were not required to meet water quality standards if Section 122.44 in fact imposed such a requirement. In fact, 40 CFR § 122.44 explicitly states that its provisions apply to NPDES permits only "when applicable."

The plain language in Section 122.44 illustrates this point. Section 122.44 provides, in pertinent part:

> In addition to the conditions established under §122.43(a), each NPDES permit shall include conditions meeting the following requirements *when applicable*.
>
> . . . .
>
> (d) *Water quality standards and State requirements*: any requirements in addition to or more stringent than promulgated effluent limitations guidelines or standards under sections 301, 304, 306, 307, 318, and 405 of CWA necessary to:
>
> (1) *Achieve water quality standards* established under section 303 of the CWA, including State narrative criteria for water quality.
>
> . . . .
>
> (vii) When developing water-quality based effluent limits under this paragraph the permitting authority shall ensure that:
>
> . . . . .
>
> (B) Effluent limits developed to protect a narrative water quality criterion, a numeric water quality criterion, or both, are consistent with the assumptions and requirements of any available wasteload allocation for the discharge prepared by the State and approved by EPA pursuant to 40 CFR 130.7.

(Emphasis added.)

In construing a regulation, one must first look to the text of the regulation itself. *Price v. Starbucks Corp.* ("The rules of statutory construction apply to the interpretation of regulations. The chosen words of the regulation are the most reliable indicator of intent. We give the regulatory language its plain, commonsense meaning." (citations omitted)).[26] Here that text is explicit: the requirements of 40 CFR § 122.44 apply to NPDES permits only "*when applicable*."

[26] (2011) 192 Cal.App.4th 1136, 1145-1146

Second, further proof that not all subsections of Section 122.44 are applicable to MS4 permits is that many subsections are simply missing from the 2009 Permit. For example, the permit does not reference Sections 122.44(j) and (m), which address pretreatment for publicly owned treatment works and privately owned treatment works. These subsections are not applicable because MS4 discharges of stormwater have nothing to do with discharges of treated sewage effluent from a treatment plant. Other subsections of Section 122.44 missing from the 2009 Permit include subsections (b)(2), (b)(3), (c), (g), and (i)(1)(i) and (ii), addressing standards for sewage sludge, requirements for cooling water intake structures, reopener clauses for treatment works treating domestic sewage, and measuring the mass of each pollutant discharged under the permit and the volume of effluent discharged from each outfall.

In fact, the only subsections of Section 122.44 that mention stormwater discharges are Sections 122.44(k) and (s), which address BMPs and small construction activity. Neither, however, requires compliance with water quality standards or inclusion of TMDL WLAs in MS4 permits.

Third, the language of subsection (d) itself indicates that it is not applicable to MS4 permits. Subsection (d) is entitled and addresses "Water Quality Standards and State Requirements." Subsection (d)(1), containing the provision relied on in the Proposed Draft, subsection (d)(1)(vii)(B), states that it is to "achieve water quality standards." As set forth above, however, MS4 permits are *not* required to contain provisions to achieve water quality standards but only to contain permit provisions that "reduce the discharge of pollutants to the maximum extent practicable."[27] Accordingly, the TMDL provisions of Section 122.44(d)(1), which address compliance with water quality standards, are not "applicable" to MS4 permits.

This does not mean that the Santa Ana Water Board cannot require MS4 discharges to comply with WLAs. It means, however, that there is no requirement in *federal law or regulation* that it do so. Rather, where a water board decides to do so, such requirements are *imposed as a matter of the Water Board's discretion.* It is thus a state, not a federal mandate. As the Supreme Court held in *Dept. of Finance*:

> If federal law compels the state to impose, or itself imposes, a requirement, that requirement is a federal mandate. On the other hand, if federal law gives the state discretion whether to impose a particular implementing requirement, and the state exercises its discretion to impose the requirement by virtue of a "true choice," the requirement is not federally mandated.[28]

Here, the Water Board had a true choice as to whether to require compliance with WLAs in the 2009 Permit. Neither the applicable federal statute, 33 U.S.C. § 1342(p)(3)(B), nor the regulation, 40 CFR § 122.44(d)(1), required this obligation to be imposed in an MS4 permit. *See also* Order WQ 2015-0175 at 11 ("[S]ince the State Water Board has *discretion* under federal law to determine whether to require strict compliance with the water quality standards of the water quality control plans for MS4 discharges, the State Water Board may also utilize the flexibility under the Porter-Cologne Act *to decline to require strict compliance with water quality standards* for MS4 discharges.") (emphasis added.).

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[27] *Defenders,* 191 F.3d at 1164-65; *BIA,* 124 Cal.App.4th at 886.

[28] 1 Cal. 5th at 765.

Thus, under *Dept. of Finance*, the 2009 Permit's requirement for permittees to comply with WLAs to attain water quality standards was imposed as an exercise of the Santa Ana Water Board's discretion. It is therefore a state mandate.[29]

c. For the Same Reasons, the 2009 Permit's Requirement to Comply with Numeric Effluent Limitations Implementing a TMDL WLA is a State Mandate

The Santa Ana Water Board acknowledges that the TMDL WLAs were incorporated as numeric effluent limitations.[30] The CWA, however, does not require permittees to comply with such limitations. As discussed above, the Act requires MS4 permits to include "controls to reduce the pollutants to the maximum extent practicable" and further grants the state authority to impose "such other provisions as the Administrator or the State determines appropriate for the control of such pollutants."[31] The Ninth Circuit in *Defenders* held that this provision did not require the inclusion of numeric effluent limits to meet water quality standards in MS4 permits, but that EPA or a State had the discretion to include them.[32] *See also BIA, supra* ("With respect to municipal stormwater discharges, Congress clarified that the EPA has the authority to fashion NPDES permit requirements to meet water quality standards without specific numeric effluent limits and instead to impose 'controls to reduce a discharge of pollutants to the maximum extent practicable.'")[33] *See also* Order WQ-2015-0075 ("requiring strict compliance with water quality standards (e.g., by imposing numeric effluent limitations) is at the discretion of the permitting agency.") Order at 10.

Three EPA guidance memoranda, issued over a period of 12 years, illustrate the point further. On November 22, 2002, EPA issued a guidance memorandum on "Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements based on Those WLAs" ("2002 EPA Guidance"). EPA noted therein that because stormwater discharges are due to storm events "that are highly variable in frequency and duration and are not easily characterized, only in rare cases would it be feasible or appropriate to establish numeric limits" for municipal stormwater discharges. 2002 EPA Guidance at 4. EPA concluded that, in light of the language in 33 U.S.C. § 1342(p)(3)(B)(iii), "for NPDES-regulated municipal and small construction discharges effluent limits should be expressed as best management practices (BMPs) or other similar requirements, rather than as numeric effluent limits." *Id.*

On November 12, 2010, EPA updated its 2002 guidance with a new memorandum, which recommended that, "where feasible, the NPDES permitting authority exercise its discretion to

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[29] As the Supreme Court held in *Dept. of Finance*, the issue before the Commission is not whether the regional board had the authority to impose the obligations at issue. The question is whether those obligations constituted a State mandate. 1 Cal. 5th at 769.

[30] "Although the permit incorporates the WLAs as numeric effluent limitations . . . ." Water Board Comments on Test Claim, March 9, 2011 at 21, cited in Proposed Draft at 21, n.82.

[31] 33 U.S.C. § 1342(p)(3)(B)(iii).

[32] 191 F.3d at 1165-66.

[33] 124 Cal.App.4th at 874.

include numeric effluent limitations to meet water quality standards."[34] In doing so, however, EPA reiterated that such inclusion would an action of the permitting agency to "*exercise its discretion.*"[35] On November 26, 2014, EPA issued another revision to the 2002 EPA Guidance, which replaced the 2010 memorandum. In this memorandum, EPA recommended that "the NPDES permitting authority *exercise its discretion* to include . . . where feasible, numeric effluent limitations as necessary to meet water quality standards."[36]

What is noteworthy about these guidance memoranda is that EPA, over the course of 12 years, consistently maintained that if numeric limitations were contained in an MS4 permit, *it would be as a result of the permitting agency exercising its discretion.*

Under the controlling authority of *Dept. of Finance, supra,* because the numeric effluent limitations in the 2009 Permit were included as a matter of discretion, they are a state, not federal, mandate.[37]

d. The 2009 Permit Does Not Allow Permittees to Comply with Numeric Effluent Limitations Through a Discretionary Iterative BMP-based Process

The Proposed Draft concludes that "although the effluent limits in [2009 Permit] are 'expressed' numerically, they are clearly complied with by way of an iterative BMP-based process." Proposed Draft at 124. The Proposed Draft further concludes that the "[r]equirement to comply with the WLAs adopted in a TMDL, but allowing local government to have discretion and flexibility in the terms of that compliance, constitute at most incidental and de minimis requirements that are part and parcel of the federal mandate," citing *County of Los Angeles v. Commission on State Mandates*[38] and *San Diego Unified School Dist. v. Commission on State Mandates*[39] (Proposed Draft at 124-27). For the reasons discussed below, these conclusions also are in error and these cases are inapposite.

First, as discussed previously, compliance by MS4 permittees with water quality standards is not federally required but is imposed as a matter of the state's discretion.[40] The form through which compliance is achieved, be it numeric WLAs or non-numeric BMPs, does not

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[34] Revisions to the November 22, 2002 Memorandum "Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs" at 2 (emphasis added).

[35] *Id.* (emphasis added).

[36] "Revisions to the November 22, 2002, Memorandum 'Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs,'" November 26, 2014, at 4 (emphasis added). Copies of these memoranda are attached as Exhibits, 2, 3, and 4 to the Burhenn Decl., filed herewith. The Commission is requested to take administrative notice of such memoranda pursuant to Evidence Code § 452(c) as an "official act of the . . . executive . . . .departments of the United States"; Govt. Code § 11515; and Cal. Code Reg., tit.2, § 1187.5(c).

[37] 1 Cal. 5th at 765.

[38] (1995) 32 Cal.App.4th 805.

[39] (2004) 33 Cal. 4th 859.

[40] *Defenders,* 191 F.3d at 1164-65.

change the fact that the obligation is imposed as a matter of discretion, the Santa Ana Water Board making a "true choice," and therefore is a state mandate.[41] Thus, an iterative BMP-based approach, even were it a true method of compliance, would still constitute a state mandate.

Second, the Proposed Draft's conclusion that water quality standard compliance can be achieved through the act of implementing an iterative, BMP-based process itself is incorrect. The source of the "iterative BMP-based process" in the 2009 Permit is State Board Order WQ No. 99-05, which is cited as authority in Permit Finding N.74:

> On June 17, 1999, the State Board adopted Water Quality Order No. 99-05. This is a precedential order that incorporates the receiving water limitations language recommended by the USEPA. Consistent with the State Board's order, [the 2009 Permit] requires the permittees to comply with the applicable water quality standards, which is to be achieved through an iterative approach requiring the implementation of increasingly more effective BMPs.

In Order WQ 2015-0075, the State Board made it clear that the iterative BMP-based approach set forth in Order 99-05 did *not* act as a "safe harbor" to protect MS4 permittees from enforcement if they were engaged in that approach:

> There has been significant confusion within the regulated MS4 community regarding the relationship between the receiving water limitations and the iterative process, in part because the water boards have commonly directed dischargers to achieve compliance with water quality standards by improving control measures through the iterative process. But the iterative process, as established in our precedential orders and as generally written into MS4 permits adopted by the water boards, does not provide a "safe harbor" to MS4 dischargers. When a discharger is shown to be causing or contributing to an exceedance of water quality standards, that discharger is in violation of the permit's receiving water limitations and potentially subject to enforcement by the water boards or through a citizen suit, regardless of whether or not the discharger is actively engaged in the iterative process.

Order WQ 2015-0075 at 12.

Thus, compliance with a BMP-based iterative process does not *per se* constitute compliance with the WLAs which, as discussed above, are numeric effluent limitations specifically intended to meet water quality standards imposed by the 2009 Permit. The 2009 Permit, in Section IV, Receiving Water Limitations, in fact requires permittees to ensure that "[d]ischarges from the MS4s shall not cause or contribute to exceedances of receiving water quality standards (designed beneficial uses and water quality objectives) for surface waters or groundwaters." 2009 Permit, Section IV.1.

The fact that the iterative process is controlled by the requirement to achieve water quality standards is reflected in the plain language of the 2009 Permit. Section XVIII.E.2 states, in relevant part, that if "the monitoring results indicate an *exceedance* of the wasteload allocations, the permittees shall *reevaluate the current control measures* and *propose additional*

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[41] *Ibid.*

BMPs/control measures." (emphasis added). In other words, even if there is an iterative process, the numeric WLAs still drive that process. Thus, if there is an "exceedance" of the numeric WLA, this triggers both the need to "reevaluate" current control measures and to "propose" additional control measures. These requirements to reevaluate and propose additional control measures are, again, based on a discretionary decision by the Santa Ana Water Board to require compliance with numeric WLAs expressed in a TMDL.

And, as the State Board held in Order 2015-0075, permittees engaging in the "iterative process" are *not* in compliance with the standard and are thus subject to continuing enforcement by either the permitting authority, the Santa Ana Water Board, or citizen plaintiffs under 33 U.S.C. § 1365(a)(1), which provides that a citizen suit may be brought against any "person" (including a municipality) who "is alleged to be in violation of (A) an effluent standard or limitation . . . . or (B) an order issued by . . . a State with respect to such standard or limitation."

Third, the requirement to comply with numeric WLAs is not merely incidental and de minimis. As discussed above, the requirement is not a federal mandate, but imposed as a matter of the Santa Ana Water Board's discretion. Therefore, there was no "federal mandate" to which this requirement was merely appended, as in *County of Los Angeles* and *San Diego Unified School Dist.* Moreover, as a matter of fact, the costs and efforts required to comply with Section XVIII of the 2009 Permit are hardly "de minimis." These costs and efforts are discussed in the next section.

4. The Programs Required as a Result of Incorporation of the TMDLs into Section XVIII of the 2009 Permit are New and Substantial, and Are Not "De Minimis"

The Proposed Draft concludes that the TMDL requirements in the 2009 Permit do not constitute new requirements or a higher level of service to the public because "the only difference between the prior permit and the [2009 Permit] is that the [2009 Permit] now identifies the WLAs calculated in the TMDL so that claimants know the percentage of bacterial loads that need to be reduced to meet the existing water quality objectives for these waterbodies." Proposed Draft at 128. This statement (which, by mentioning only "bacterial loads," does not address other pollutants for which Claimants are responsible in the TMDLs) characterizes the incorporation of the TMDLs in the 2009 Permit as equivalent to previous requirements imposed on Claimants in the 2002 Permit.

This characterization is incorrect, both legally and factually. As a legal matter, incorporation of a TMDL constitutes the imposition of additional pollution control requirements for permittees. The court in *City of Arcadia v. U.S. EPA*[42] recognized how TMDL incorporation spawns additional requirements when it identified TMDLs as "planning devices" which "forms the basis for further administrative actions that may require or prohibit conduct with respect to particularized pollutant dischargers and waterbodies."[43] *See also Pronsolino v. Nastri* ("TMDLs are primarily informational tools that allow the states to proceed from the identification of water

[42] 265 F. Supp.2d 1142 (N.D. Cal. 2003).

[43] 265 F.Supp.2d at 1145.

requiring additional planning to the required plans");[44] *Idaho Sportsmen's Coalition v. Browner* ("TMDLs inform the design and implementation of pollution control measures.").[45]

In the 2009 Permit, the Santa Ana Water Board acknowledged how incorporation of a TMDL triggered requirements for permittees to undertake a number of new and substantial projects in affected watersheds::

> For 303(d) listed waterbodies without a TMDL, the permittees are required to provide special protections through development and implementation of Watershed Action Plans or other focused control measures that would address the pollutant of concern. If a TMDL has been developed and an implementation plan is yet to be developed, *the permittees are required to develop constituent specific source control measures, conduct additional monitoring and/or cooperate with the development of an implementation plan.*

2009 Permit, Finding J.42 (emphasis added).

As a factual matter, the incorporation of the TMDLs into the 2009 permit, with the requirement to comply with the associated WLA for MS4s, triggered requirements for permittees to undertake a number of new and substantial projects in affected watersheds. As set forth in the Declaration of James Fortuna ("Fortuna Decl.") filed herewith, the introduction of numerical WLAs into the 2009 Permit introduced new requirements for permittees with respect to pollutants covered by the associated TMDLs at issue in this Test Claim.

For example, with respect to the TMDL and associated WLAs for selenium in San Diego Creek and Newport Bay, since the inception of the 2009 Permit, permittees have undertaken projects such as: the design and construction of the Peters Canyon Channel Water Capture and Reuse Pipeline, at an approximate cost of $7,728,000, and the Santa Ana-Delhi Diversion, at an approximate cost of $5,827,000 (Fortuna Decl., ¶ 6.b) as well as various investigations under the Nitrogen and Selenium Management Program Working Group, including a selenium water balance investigation (at an approximate cost of $160,000), studies for developing selenium site-specific objectives (at an approximate cost of $349,000) and treatment technology evaluations and additional consultant support (at an approximate cost of $1,058,000) (Fortuna Decl., ¶ 6.c). In addition, the City of Newport Bay undertook restoration and maintenance efforts for Big Canyon Creek (at an approximate cost of $6,674,318 since 2009) and other selenium reduction efforts (at an approximate cost of $3,325,368 since 2009) (Fortuna Decl., ¶ 6.d).

With respect to the TMDL and associated WLAs for organochlorine compounds ("OCs") in Newport Bay and San Diego Creek, permittees have undertaken the preparation of a WLA Evaluation Assessment required to be sent to the San Diego Water Board (at an approximate cost of $44,000) (Fortuna Decl., ¶ 7.b).

With respect to the TMDL and related WLAs for metals in Coyote Creek for wet and dry weather, programs undertaken to comply include monitoring, laboratory and data management costs (at an approximate cost of $1,121,398 since 2011) (Fortuna Decl., ¶ 8.a).

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[44] 291 F.3d 1123, 1129 (9th Cir. 2002).

[45] 951 F. Supp. 962, 996 (W.D. Wash. 1996).

With respect to the TMDL and related WLAs for fecal coliform in Newport Bay, permittees have undertaken projects to complete engineering evaluations and analyses for new potential structural BMP projects at locations that drain into Newport Bay (at an approximate cost of $302,936) (Fortuna Decl., ¶ 9.a) and the development and implementation of a Source Investigation Design Study to evaluate human sources of fecal contamination and conduct target source investigations (presently ongoing, at an approximate cost of $200,000 as of 2022) (Fortuna Decl., ¶ 9.b).

In addition to these efforts, permittees, working through the Newport Bay TMDL Partners, which serves as a planning body to discuss additional studies, research, monitoring, reporting, development and revision of programs related to Newport Bay TMDLs generally in the Newport Bay watershed, spent approximately $5,332,960 in reimbursing the labor costs of Orange County personnel since 2009 (Fortuna Decl., ¶ 10).

The Proposed Draft also concludes that the requirement "to monitor metals, pesticides, 'and constituents which are known to have contributed to impairment of local receiving waters' was required by the prior permit and are not new." Proposed Draft at 127. However, as set forth in the Fortuna Declaration, monitoring requirements under the 2009 Permit were substantially upgraded from those under the 2002 Permit in several respects. That upgrading included, for the selenium TMDL, the monitoring of bird egg and fish tissue for the presence of selenium (at an approximately cost of $755,000) since 2010 (Fortuna Decl., ¶ 6.a). With respect to the OCs TMDL, additional monitoring costs were incurred related to the addition of three groups of compounds to the list of analytes (at an approximate cost of $816,264 since 2010) (Fortuna Decl., ¶ 7.a) and bird egg and fish tissue monitoring for OCs (at an approximate cost of $755,000 since 2010) (Fortuna Decl., ¶ 7.c).

These programs, and their cost, are hardly *de minimis*. All of these programs were initiated and all associated expenses were incurred *after* the inception of the 2009 Permit and the inclusion of the above-noted TMDLs and numeric WLAs in the permit. They are both new to the 2009 Permit and provide a "higher level of service" by enhancing the protection of receiving waters from pollutants.

Moreover, even if certain TMDL obligations might be considered to have carried over from the 2002 Permit, those obligations also constitute a "new program" or "higher level of service" under legal principles discussed next below.

5. The 2009 Permit's TMDL Obligations Are a New Program and Higher Level of Service

As noted above, the Proposed Draft concludes that the 2009 Permit's TMDL obligations, other than the selenium CWP, do not constitute new programs or a higher level of service, basing this conclusion on the ground that the prior 2002 Permit required permittees to comply with receiving water limitations, through an iterative process, and that compliance with the WLAs established under the 2009 Permit simply continued that obligation. Proposed Draft at 127-28. Claimants have demonstrated that as both factually and legally, the 2009 Permit in fact required new programs and a higher level of service. See discussion in Section III.B.3(4) and III.B.4, above. If, however, it still was to be concluded that such requirements "carried over" from the 2002 Permit, that would not preclude Claimants from asserting such requirements in this Test Claim.

This is so because even if certain TMDL obligations were carried forward into the 2009 Permit, they still are "new" obligations and a "higher level of service" because: (1) The 2009 Permit's obligations cannot be compared with those in the 2002 Permit because the permittees were legally precluded from filing a test claim with respect to the obligations in the 2002 Permit; and (2) The permittees had no obligation to continue to implement BMPs in compliance with the receiving water limitations in the 2002 Permit once the 2002 Permit terminated. Each of those reasons is explored below.

First, in 2002 the Santa Ana Water Board issued the "third term" permit. Proposed Draft at 62. The permittees then had twelve months following the effective date of that permit, or twelve months after incurring increased costs as a result of mandates in that 2002 Permit, in which to file a test claim. Govt. Code §17551(c).

In those years (2002 and 2003), however, permittees were legally precluded from filing a test claim because the term "Executive Order" (a category of state action giving rise to "costs mandated by the State")[46] was then defined to exclude any "order, plan, requirement, rule or regulation issued by the State Water Resources Control Board or by any Regional Water Quality Control Board pursuant to Division 7 (commencing with Section 13000) of the Water Code."[47] Since the 2002 Permit was issued under that division of the Water Code,[48] permittees were precluded from filing a test claim. In 2007, a court found this provision unconstitutional[49] and effective January 1, 2011, the Legislature eliminated this exclusion.

Thus, in 2002 and 2003, the permittees could not file a test claim seeking reimbursement for obligations imposed by the 2002 Permit. It is well established that a party is not precluded from pursuing a claim in a current proceeding where that party could not have pursued the claim in the past. For example, with respect to "issue preclusion"[50] if an issue was not within a court's power to decide the issue in the first action, it is not precluded in a later action. *Strangman v. Duke*[51] ("The rule of res judicata does not apply to causes or issues which were not and could not be before the court in the first proceeding.") *See also State Compensation Insurance Fund v. ReadyLink Healthcare, Inc.*[52] (defendant not precluded from litigating amount of premium due where such issue could not have been brought in prior administrative proceeding because insurance commissioner lacked power to hear that issue); *Hong Sang Market, Inc. v. Peng*[53]

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[46] Govt. Code § 17514.

[47] Former Govt. Code § 17516.

[48] *See* 2002 Permit, at 14 ("**IT IS HEREBY ORDERED** that the permittees, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder . . . .")(emphasis in original).

[49] *County of Los Angeles v. Comm. on State Mandates* (2007) 150 Cal.App.4th 898, 920.

[50] "Issue preclusion prohibits the litigation of issues argued and decided in a previous case, even if the second suit raises different causes of action. *State Comp Insurance Fund v. ReadyLink*, 50 Cal.App.5th at 447. Issue preclusion applies (1) after final adjudication (2) of an identical issue (3) actually litigated and necessarily decided in the first suit and (4) asserted against one who is a party in the first suit or one in privity with that party. *DKN Holdings LLC v. Faerber* (2015) 61 Cal. 4th 813, 825.

[51] (1956) 140 Cal.App.2d 185, 191.

[52] (2020) 50 Cal.App.5th 422, 458-460.

[53] (2018) 20 Cal.App.5th 474, 491.

("Thus, in a situation in which a court in the first action would clearly not have had jurisdiction to entertain the omitted theory or ground . . . then a second action in a competent court presenting an omitted theory or ground should be held not precluded"), quoting *Merry v. Coast Community College Dist.*[54]

An analogous principle applies with respect to the exhaustion of administrative remedies. Where a party is precluded from exhausting its administrative remedies, or to do so would be futile, the exhaustion requirement is not a bar to further proceedings. Moreover, it is well established that the exhaustion requirement is not applicable where an effective administrative remedy is wholly lacking. *Glendale City Employees' Association, Inc. v. City of Glendale*[55] (exhaustion of administrative remedies does not apply if the remedy is inadequate). *See also Association for Los Angeles Deputy Sheriffs v. County of Los Angeles*[56] (where pursuing administrative remedies would not provide class-wide relief, failure to pursue administrative remedy does not bar such relief).

The same principle applies here. Because Claimants could not lawfully file a test claim seeking reimbursement for requirements imposed by the 2002 Permit, they should not be precluded from seeking reimbursement for requirements that might be deemed to be similar on the grounds that they are not "new."

Second, with the expiration of the 2002 Permit and the commencement of the 2009 Permit, permittees were presented with new 2009 Permit TMDL obligations which constituted a higher level of service. The permittees' 2002 Permit obligations to monitor, assess and revise BMPs to comply with receiving water limitations ended when that permit expired and was replaced with the 2009 Permit. The 2009 Permit, then reimposed those obligations anew, for the life of the 2009 permit, *i.e.* it increased the level of services that Claimants must provide by extending these obligations from May 11, 2009 until the end of the 2009 Permit.

"Higher level of service" refers to "state mandated increases in the services provided by local agencies in existing programs." *Dept. of Finance v. Comm. on State Mandates*[57] ("*Dept. of Finance II*"). Here, the permittees' 2002 Permit obligations ended when that permit expired and the 2009 Permit took effect. The 2009 Permit then obligated permittees to continue to provide those services for the term of that permit. Thus, even if those services were not considered "new," the 2009 Permit created an increase of state-mandated services, *i.e.,* permittees were required to provide services that they would have otherwise not been required to provide. By requiring services for obligations that terminated upon the 2002 Permit's termination, the 2009 Permit obligated permittees to undertake a "higher level of service."

6. The TMDL Compliance Requirements in the 2009 Permit Represent a "Program" Within the Meaning of Article XIII B, Section 6

The Proposed Draft also concludes that the WLA obligations in Section XVIII of the 2009 Permit are not "unique to government" because the NPDES permit program "operates against a backdrop of prohibiting *any discharge*, whether from a private or public entity, except

[54] (1979) 97 Cal.App.3d 214, 229.

[55] (1975) 15 Cal. 3d 328, 342.

[56] (2019) 42 Cal.App.5th 918, 930-931.

[57] (2021) 59 Cal.App.5th 546, 556.

for one for which a permit has been issued." Proposed Draft at 128 (emphasis in original). The Proposed Draft further notes that receiving waters have been identified as impaired under Section 303(d) of the CWA and any NPDES permit issued for discharges into that receiving water, whether public or private, has to comply with the applicable TMDL. Proposed Draft at 128-29. From this general prohibition and general requirement that NPDES permits must reflect TMDL provisions, the Proposed Draft concludes that compliance with the WLAs are not unique to local government and therefore not a "program." Proposed Draft at 130.

This conclusion is not correct. "Programs," within the meaning of article XIII B, section 6, "carry out the governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state." *County of Los Angeles, supra.*[58] The two definitions are alternatives; either will trigger the subvention obligation unless an exception applies. *Carmel Valley Fire Protection Dist. v. State of California.*[59]

There is no question that compliance with the WLAs in the 2009 Permit is intended to reduce pollutants in stormwater discharge that enter receiving waters such as San Diego Creek and Newport Bay. Discharges from public and private properties (e.g., urban runoff) have been collected by the MS4. The reduction of pollutants is a service that constitutes a "program" within the meaning of article XIII B, section 6. *Dept. of Finance II*[60] (installation and maintenance of trash receptacles is a government function that provides a service to the public by producing cleaner transit stops, streets and stormwater drainage systems and receiving waters.) Having met this test, the Section XVIII requirements represent a "program" as a matter of law.

The WLA requirements in the 2009 Permit are also unique to the MS4 permittees, because those specific WLAs are imposed *only* on local government entities, not private discharges. *See Dept. of Finance II*[61] (where a permit applies by its terms only to the local government entities, obligations imposed by it are unique). Moreover, the activities compelled by the WLAs, reduction of pollutants in municipal stormwater discharges, lie solely within the purview of government agencies, not private parties. *Id.* Several supporting points can be made.

First, as discussed above, the factual premise that TMDL requirements in the 2009 Permit were imposed on both MS4 and private permittees ignores the fact that in the case of the MS4 permittees, imposition of those requirements was a matter of discretion. While private dischargers are required to strictly comply with water quality standards (*Defenders, supra*), that obligation does not apply to MS4 dischargers.

Second, as *County of Los Angeles v. Commission on State Mandates* held, "the applicability of permits to public and private dischargers does not inform us about whether a particular permit or an obligation thereunder imposed on local governments constitutes a state mandate necessitating subvention under article XIII B, section 6."[62] In that case, the court

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[58] 43 Cal. 3d at 56.

[59] (1987) 190 Cal.App.3d 521, 537.

[60] 59 Cal.App.5th at 558-59.

[61] 59 Cal.App.5th at 559-560.

[62] 150 Cal.App.4th at 919.

rejected the argument that an MS4 permit cannot contain state mandates "because the Water Boards regulate water pollution with an even hand."[63]

The holding in *County of Los Angeles* applies with equal force to elements of NPDES permits. If the fact that NPDES permits are required of both private and public entities does not negate that the permit is a "program" within the meaning of article XIII B, section 6, then *a fortiori,* the fact that an element of that permit is required of both private and public entities is similarly not controlling on whether that element is a "program." Instead, the test is whether it meets the definition of "program" set forth by the Supreme Court in *County of Los Angeles.*

Indeed, the Commission itself recognized upon remand of the Los Angeles test claim that "the issue is not whether NPDES permits generally constitute a 'program' within the meaning of article XIII B, section 6. "The only issue before the Commission is whether the permit in this test claim . . . constitutes a program because this permit is the only one over which the Commission has jurisdiction."[64] Looking at the trash receptacle and inspection obligations in that test claim, the Commission concluded that "[b]ecause they apply exclusively to local agencies, the Commission concludes that the activities . . . in this permit . . . constitute a program within the meaning of article XIII B, section 6."[65]

That reasoning applies here. The issue is not whether private discharger NPDES permits may also contain provisions to comply with TMDLs. The issue is whether the specific WLAs imposed on Claimants are also imposed on private parties. They are not. Those WLAs are imposed solely on governmental entities, e.g., the municipalities that are the permittees under the 2009 Permit.

The fact that these WLAs were imposed solely on MS4 permittees distinguishes those obligations from the elevator requirements at issue in *County of Los Angeles v Department of Industrial Relations.*[66] There, the requirement to follow elevator safety rules was the same for both public and private entities, and county elevators, which merely transported individuals from floor to floor in county buildings, did not themselves provide a "government service." Here, the WLAs are uniquely required of municipal permittees, require permittees to take actions not required of private dischargers, and provide a service to the public of reducing pollution in the public and private stormwater that becomes collected in the MS4 system.

Finally, the Proposed Draft's conclusion that 2009 Permit obligations are not unique because there is a general prohibition in the CWA against unpermitted discharges of pollutants (Proposed Draft at 128-29) was specifically litigated and rejected in *Dept. of Finance II.* There, the DOF and the Water Boards had argued that the trash receptacle obligation imposed by the Los Angeles County MS4 Permit was not a "program" because the CWA imposed a general prohibition against discharges containing pollutants, as the Proposed Draft concludes here.[67]

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[63] *Id.*

[64] Statement of Decision, *Municipal Storm Water and Urban Runoff Discharges,* 03-TC-04, 03-TC-19, 03-TC-20, 03-TC-21, at 49.

[65] *Id.*

[66] (1989) 214 Cal.App.3d 1538.

[67] *Dept. of Finance II,* 59 Cal.App.5th at 560.

Based on that argument, the superior court determined that the MS4 permit did not impose a "program" because "a NPDES program enforcing a prohibition against polluting is not a government program in the usual sense of the word . . .".[68] While the superior court acknowledged that the placement of trash receptacles was uniquely imposed on local government, it concluded that the "relevant state policy" being implemented was the prohibition against unlawful discharges, which applied generally to all residents and entities in the state, and was therefore "not the type of policy the voters intended to embrace in the ballot measure giving rise to section 6."[69]

Dept. of Finance II rejected this reasoning:

> The trial court agreed with the state agencies that the trash receptacle and inspection requirements are mere manifestations of policies to prohibit pollution. As the trial court stated, the requirements "enforce a prohibition rather than initiate or upgrade 'classic' or 'peculiar governmental function[s]' like the fire fighting services effected in *Carmel Valley*. . . . This view, however, ignores the terms of the Regional Board's permit; the challenged requirements are not bans or limits on pollution levels, they are mandates to perform specific actions – restoring and maintaining trash receptacles and inspecting business sites – that the local governments were not previously required to perform.[70]

The Court of Appeals thus found that the MS4 trash receptacle requirements were a new program or higher level of service.[71]

The holding in *Dept. of Finance II* applies here. The 2009 Permit's requirement that the permittees implement programs to comply with the WLAs were not mere bans or limits on pollutions levels. They were obligations to implement programs to reduce pollutants to the levels set forth in the WLAs.

The 2009 Permit's obligations to develop and implement programs to comply with the WLAs at issue in this Test Claim provide a service to the public, the reduction of pollutants in public and private stormwater discharges. Compliance with these particular WLAs are uniquely imposed on permittees. They are not mere bans or limits on pollution levels but are, as discussed above, obligations to implement programs to reduce pollution. The 2009 Permit obligations at issue in this Test Claim, including those in Section XVIII, thus constitute a "program" within the meaning of article XIII B, section 6 of the California Constitution.

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[68] *State of California Dept. of Finance v. Commission on State Mandates*, Case No. BS130730, Order Granting Petition for Writ of Mandate (Post Remand) and Denying Cross-Petitions as Moot at 12:3-4, attached as Exhibit 5 to Burhenn Decl. The Commission is requested to take administrative notice of this evidence as a record of "any court of this state" pursuant to Evid. Code § 452(d)(1); Govt. Code § 11515; Cal. Code Regs., tit. 2, § 1187.5(c).

[69] *Id.* at 12:21-13:2.

[70] *Dept. of Finance II,* 59 Cal.App.5th at 560.

[71] *Id.* at 560-61.

C. Requirements in 2009 Permit Section XII to Implement LID and HMP

The Proposed Draft concludes that 2009 Permit Section XII, which requires the incorporation of Low Impact Development ("LID") and hydromodification principles ("HMP") into Priority Development Projects ("PDPs"), instituted new requirements in the 2009 Permit Proposed Draft at 134. The Proposed Draft concluded, however, that these requirements are not "state-mandated" because there was "no legal requirement to undertake municipal Priority Development Projects" ("PDPs") and that the activities "are not unique to local government and do not provide a peculiarly governmental service to the public." Proposed Draft at 134-35.

These conclusions overlook the numerous requirements in Section XII for permittees, and permittees only, to establish the planning framework for the incorporation of LID/HMP into PDP planning and also that many municipal PDPs are in fact practically compelled and thus are fundamentally different from private PDPs.

1. The Proposed Draft Does Not Address Requirements for Claimants to Devise Plans to Incorporate LID and HMP Principles Into Priority Development Projects

Proposed Sections XII.B through XII.E of the 2009 Permit require Claimants to devise plans to incorporate best management practices ("BMPs") regarding Low Impact Development ("LID") and hydromodification principles ("HMP") into PDPs (defined in Subsection XII.B.2), and then to implement those plans in municipal PDPs.

Section XII contains several distinct requirements for Claimants to develop planning documents to govern Water Quality Management Plans ("WQMPs") used by PDP developers. The first is Section XII.B.1, which required permittees to "annually review the existing structural treatment control and other BMPs for New Development and submit any changes for review and approval by the Executive Officer." The principal permittee was required to "revise the appropriate tables in the Water Quality Management Plan [for new development projects] with the latest information on BMPs and provide additional clarification regarding their effectiveness and applicability." These requirements are unique to permittees and they provides a peculiarly governmental service to the public, as the permittees are, themselves, the permitting authority for PDPs within their respective jurisdictions, and providing planning guidance to developers on meeting clean water goals requirements for permit issuance is inherent in this uniquely governmental role.

Second, Section XII.C required permittees to "update the model WQMP to incorporate LID principles (as per Section XII.C) and to address the impact of urbanization on downstream hydrology (as per Section XII.D)" and, within 12 months after the adoption of the 2009 Permit to submit the updated model WQMP "for review and approval by the Executive Officer."[72] This required model WQMP updating to incorporate LID and hydromodification principles is again, a requirement unique to the permittees and it provides a peculiarly governmental service to the public.

Third, Section XIII.D (which relates to hydromodification) required permittees to prepare a Watershed Master Plan for each of four identified watersheds, which were required to integrate

[72] 2009 Permit Subsection XII.C.1.

water quality, hydromodification, water supply, and habitat. The Master Plan must include maps to identify areas susceptible to hydromodification and a hydromodification model to use as a tool for project developers to select storm water preventative and mitigative site BMPs.[73] The permittees were required to submit the maps and a model plan for one watershed to the Santa Ana Water Board Executive Officer by May 22, 2011. The model plan was required to specify hydromodification standards for each sub-watershed and provide assessment tools. Watershed Master Plans for the remaining watersheds were required to be completed 24 months after approval of the model Plan.[74]

Fourth, Section XIII.E (relating to LID alternatives and in-lieu programs) required the principal permittee, "in collaboration with the co-permittees," to develop technically-based feasibility criteria for project evaluation to determine the feasibility of implementing LID BMPs and to submit that to the Executive Officer for approval.[75]

All of the above requirements to develop and/or modify various programs and documents governing development of PDPs within each Claimant's jurisdiction apply uniquely to local governmental entities. All of the above requirements further compel those entities to provide uniquely governmental services *and* services to the public (e.g., guidance on water quality considerations for new development requirements as well as improvements to water quality and the environment through the reduction of stormwater flows).[76] As such, these requirements fall well within the definition of a "new program or higher level of service" set forth by the California Supreme Court in *County of Los Angeles, supra.*

The Proposed Draft, however, overlooks these requirements in its discussion of Section XII. Proposed Draft at 131-33. The Test Claim included all requirements in Sections XII.B-XII.E and Claimants' Narrative Statement discussed the costs of "developing a State-mandated program," development of a model WQMP, and other permittee-specific planning requirements. *See* Narrative Statement at 31-34. The "Actual Increased Costs of Mandate" section of the Narrative Statement further specifically discussed costs relating to these planning efforts. Narrative Statement at 37. Claimants' Rebuttal Narrative Statement also referenced the LID/HMP planning requirements: "The 2009 Permit requires the Permittees to take immediate actions related to low impact development and hydromodification. These steps include updating the model WQMP to incorporate low impact development and hydromodification principles and developing feasibility criteria for project evaluation to determine the feasibility of implementing low impact development BMPs." Claimants' Rebuttal Narrative Statement at 43.

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[73] 2009 Permit Subsection XII.D.5.

[74] *Ibid.*

[75] 2009 Permit Subsection XII.E.1.

[76] *Cf. Dept. of Finance II, supra* ("In the case of the provision of stormwater drainage and flood control services, the trash receptacle requirement provides a higher level of service because it, together with other requirements, will reduce pollution entering stormwater drainage systems and receiving waters. In addition, litter will presumably be reduced at transit stops and adjacent streets and sidewalks; as the local governments put it, the "community is cleaner as a result."). 59 Cal.App.5th at 558.

In light of these facts, Claimants request that the final Proposed Decision address these requirements and, as required by applicable law, conclude that they are unfunded state mandates requiring a subvention of funds.

2. Municipal PDPs Are in Many Cases "Practically Compelled," Which Differentiates Them from Private PDPs and Entitles the Cost of Including LID/HMP Requirements to be Recovered as an Unfunded State Mandate

The Proposed Draft also disputes the arguments raised by Claimants regarding the distinction between municipal PDPs and private PDPs, asserting that Claimants have not presented evidence in the record showing that, under two cases[77] they were "practically compelled" to construct a PDP. Under *POBRA,* a municipality may be practically compelled to follow statutory or regulatory requirements in carrying out a facially discretionary project if the project was either "the only reasonable means to carry out [the claimant's] core mandatory functions"[78] and under *Kern,* if the failure to act would subject the claimant to "certain and severe . . . penalties."[79]

Claimants submit that, with the passage of time since adoption of the 2009 Permit, there is substantial evidence in the record of just such projects. As set forth in the attached Declaration of Robert Rodarte, the County of Orange has embarked on multiple PDPs required to incorporate LID requirements during the permit term which, Claimants submit, were "practically compelled" under the *POBRA* and *Kern* tests. The projects set forth in Mr. Rodarte's Declaration, two Orange County administration building projects and a project for transitional housing for the homeless, represent the only reasonable means to carry out core mandatory governmental functions and, in the case of the homeless shelter, is an example of where the failure to act would subject claimant to certain and severe penalties.

With respect to the two government administration buildings, in order to conduct the business of the people and to serve the public with a functioning, efficient and convenient County government, the only reasonable means for the County is to concentrate County governmental offices in a centralized civic center. As set forth in the Rodarte Declaration and Exhibits 1 and 2 thereto, such a centralized area for governmental services and functions, including the holding of public County Board of Supervisors meetings, Planning Commission meetings, OC Public Works planning and permitting services, and Treasurer-Tax Collector services, allows the delivery of core mandatory functions of government to the residents of the County by grouping similar and related services. Moreover, such a location allows County employees to better interact with employees from other departments. The taxpayers benefit from the project's use of utilities from the Central Utilities Facility and also from the improvement of space usage. (Rodarte Decl., ¶¶ 4.a; 4.b, and Exhibits 1 and 2). Were the offices to be distributed amongst rental properties or disparate buildings, none of these advantages would accrue. Thus,

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[77] *Dept. of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1358 ("*POBRA*") and *Dept. of Finance v. Commission on State Mandates* (2003) 30 Cal.4th 727 ("*Kern*").

[78] *POBRA,* 170 Cal.App.4th at 1368.

[79] *Kern,* 30 Cal. 4th at 754.

the administrative buildings project is the "only reasonable means" to carry out the County's "core mandatory functions."[80]

The transitional housing project meets both the *POBRA* and *Kern* tests. First, it allows the County to address one of the great challenges posed to local governments in California, providing shelter and necessary services to the large numbers of unhoused persons currently living on the street. As the Rodarte Declaration notes, the project was aimed at meeting a "critical need for individuals experiencing homelessness," as well as to address "a pressing social issue that is deeply affecting local businesses and neighborhoods." (Roarte Decl., ¶ 4.c. and Exhibit 3). Housing must be found for such individuals. Such a challenge poses not only threats to the health and well-being of the homeless, it also poses a public safety and healthcare problem for county government, a clear "core government function" under the *POBRA* test. The creation of homeless facilities like the Yale Transitional Center discussed in Mr. Roarte's Declaration is thus the "only reasonable means" for the County to address these challenges. Moreover, the failure to address the problem of homelessness continues to subject the County to legal liability, as the County has already been sued due to the presence of unhoused persons camped along the Santa Ana River Trail. *See* article in the *Daily Pilot,* July 24, 2019, attached as Exhibit 6 to the Burhenn Declaration. Such a risk meets the *Kern* test.

Finally, the Proposed Draft concludes that the LID/HMP requirements applicable to public PDPs are not government mandates because the requirements are applicable to private PDPs as well, citing *County of Los Angeles, supra,* and other cases. Proposed Draft at 139-43. However, the provision of core governmental services, such as the conduct of governmental services, is fundamentally different from the county elevator at issue in that case. There, the issue was whether the requirement for the county to follow elevator safety regulations represented a government mandate. The projects noted above are projects which provide uniquely governmental functions, e.g., the conduct of government and the requirement to address the needs of the unhoused. This is a far cry from simply the carriage of passengers from floor to floor. As such, the BMPs required to be imposed as part of those projects are categorically different than those required for a private project. *See generally,* discussion in Section III.B.6 above.

D. Requirements in 2009 Permit Section XI Regarding Residential Areas

The requirements in 2009 Permit Section XI relate to programs required of Claimants to address residential areas, including to develop and implement a residential program to reduce discharges of pollutants,[81] to identify areas and activities that are potential sources of pollutants and to develop Fact Sheets and BMPs and to encourage residents to adopt pollution prevention measures,[82] to facilitate the collection of used oil, toxic and hazardous materials,[83] to develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies,[84] to enforce water quality ordinances for all

[80] *POBRA,* 170 Cal.App.4th at 1368.

[81] 2009 Permit Section XI.1.

[82] 2009 Permit Section XI.2.

[83] 2009 Permit Section XI.3.

[84] 2009 Permit Section XI.4.

residential areas[85] and to evaluate the residential program in annual reports.[86] The Proposed Draft found that the requirement for permittees to develop the pilot program imposed a new program or higher level of service. Proposed Draft at 148-49. Claimants agree with this conclusion.

However, Claimants take issue with the Proposed Draft's conclusion that the remaining requirements of Section XI at issue in the Test Claim simply effectuated federal regulatory requirements or were not "new" because they had already been performed by Claimants during the term of the 2002 Permit. Proposed Draft at 145. These conclusions do not comport with the controlling law or the facts.

With regard to controlling law, in *Dept. of Finance, supra,* the California Supreme Court set forth the "true choice" test for determining whether a federal requirement compels a permit requirement:

> On the other hand, if federal law gives the state discretion whether to impose a particular implementing requirement, and the state exercises its discretion to impose the requirement by virtue of a "true choice," that requirement is not federally mandated.[87]

Here, no federal law or regulation explicitly compelled these programs.

With regard to the facts, a comparison of the terms in Section XI and the federal regulations cited in the Proposed Draft reflects that the Santa Ana Water Board was both given the discretion to move beyond the federal regulations and that it exercised that discretion. For example, Section XI.6 required each permittee to "include an *evaluation* of its Residential Program" in their annual reports starting with the first annual report after adoption of the 2009 Permit (emphasis added). The Proposed Draft concluded that the federal annual reporting requirements (applicable to the entire MS4 program and not a residential program in particular), which merely require a report on the "status" of components of the stormwater program and a summary describing the number and nature of enforcement actions, inspections, and public education programs,"[88] was "consistent" with the requirements in Section XI.6. Proposed Draft at 147.

The 2009 Permit, however, requires permittees to *evaluate* their residential programs, a task which requires more than listing statistics of inspections or enforcement actions. It requires an analytical, qualitative element assessing of what worked, and did not work, in the implementation of the residential program. This requirement is not "consistent" with the federal regulations – it reflects a decision by the Santa Ana Water Board to exceed it. By electing to *require* this additional level of analysis, the Board made a "true choice" and, under controlling authority, created a state mandate.[89]

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[85] 2009 Permit Section XI.5

[86] 2009 Permit Section XI.6.

[87] *Dept. of Finance, supra,* 1 Cal. 5th at 765.

[88] 40 Code Fed. Reg. § 122.42(c)

[89] *Dept. of Finance, supra,* 1 Cal. 5th at 765.

Similarly, the Proposed Draft concludes that the requirement for permittees to encourage residents to implement pollution prevention measures was required by federal regulations, but the regulations cited (Proposed Draft at 147) contain no such language.

The Proposed Draft characterizes the requirement in Section XI.3 that permittees "facilitate the proper collection and management of used oil, toxic and hazardous materials, and other household wastes" as simply implementing a federal regulatory requirement that an MS4 NPDES permit application require that a permittee include a "description of educational activities, public information, and *other appropriate activities* to facilitate the proper management and disposal of used oil and toxic materials." Proposed Draft at 146[90] (emphasis in original). The Proposed Draft appears to conclude that the general term "other appropriate activities" serves to federally require the specific 2009 Permit requirements at issue. However, the federal regulatory language does not command permittees to "facilitate collection and management" of these materials, nor does it even mention "other household wastes." Instead, the regulation simply give the Water Board the *discretion* to impose other measures that it deems "appropriate". The Santa Ana Water Board made a "true choice" in requiring the specific tasks in Section XI.3.

This point was addressed by the Supreme Court in *Dept of Finance,* when it considered whether a general requirement in the federal NPDES permit regulations could be translated into a dictate to install trash receptacles at transit stops:

> While the Operators were required to include a description of practices and procedures in their permit application, the issuing agency has discretion whether to make those practices conditions of the permit. (40 C.F.R. § 122.26(d)(2)(iv).) No regulation cited by the State required trash receptacles at transit stops.[91]

In the Fact Sheet for the 2009 Permit, the Water Board itself recognized that the residential program (which did not exist as a separate program in the 2002 Permit) in fact imposed new and more comprehensive requirements: "The Fourth Term Permit has also added a residential program to be implemented by the permittees. This element *improves upon* the existing requirements within the third term permit, by *adding specific criteria associated with developing a more successful means* of reducing the discharge of pollutants from residential areas into the MS4 to the maximum extent practicable." Fact Sheet at Section IX.7 (emphasis added).[92] The Fact Sheet's acknowledgement that the residential requirements in the 2009 Permit "improves upon" the requirements in the 2002 Permit and adds "specific criteria" shows that these requirements are in fact new.

The Proposed Draft further concludes that certain requirements in Sections XI.2 and XI.3 are not "mandatory" because the 2009 Permit stated that permittees "should" undertake those requirements. The Proposed Draft (at 145) concluded that because the Permit uses both "should"

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[90] Citing 40 CFR § 122.26(d)(2)(iv)(B)(6).

[91] *Dept. of Finance, supra,* 1 Cal. 5th at 771–72.

[92] NPDES permit Fact Sheets are required to, *inter alia,* "briefly set forth the principal facts and the significant factual, legal, methodological and policy questions considered in preparing the draft permit." 40 CFR § 124.8(a). In addition, the Fact Sheet must set forth "a brief summary of the basis for the draft permit conditions . . . ." 40 CFR § 124.8(b)(4). The requirement to prepare a Fact Sheet as part of permit adoption also applies to permits issued by authorized states, such as California. 40 CFR § 123.25.

and "shall" in Section XI, "the terms must mean something different." Claimants have several responses. First, in the Fact Sheet, the Santa Ana Water Board expressly stated that the provisions in Section XI.2 were, in fact, "requirements": "The addition of the Residential Program to the fourth term permit includes *requirements for permittees* to identify residential areas and activities therein that are potential sources of pollutants and to develop Fact Sheets/BMPs for each and encourage residents to implement the pollution prevention measures." Fact Sheet at IX.7 (emphasis added).

Second, the Fact Sheet also reveals that the Santa Ana Water Board considered the public education activities required in Section XI.3, another "should" provision (Proposed Draft at 144), to be "requirements": "The proposed order contains additional *requirements* to address runoff from residential developments. The permittees have developed a number of educational materials, established a storm water pollution prevention hotline, started an advertising and educational campaign, and distribute public education materials at a number of public events. *The permittees are required* to continue these efforts and *to expand* public participation and education programs."[93] The Fact Sheet reflects that the Santa Ana Water Board treated the "should" provisions in Section XI as requirements, not suggestions.

Third, the language used in the 2009 Permit is suggestive of a mandatory requirement. For example, in Section XI.2, the permit language specifies that *"[a]t a minimum,"* distinct categories of businesses and various practices must be the subject of an investigation and the development of Fact Sheets and BMPs. There is no discretion when the permit language requires certain tasks to be accomplished "at a minimum."[94]

California courts have looked to the context of a requirement when interpreting whether the wholly discretionary term "may" could in fact be a mandatory directive. In *Elmore v. Imperial Irrigation District,*[95] defendant district argued that statutes using the term "may" regarding its flood control and other obligations indicated that the district was under no mandatory obligation to the plaintiff. The court disagreed:

> IID quickly points out sections 22160, 22875 and 22879 contain the operative word "may," not the mandatory words "shall" or "must" and relies on decisions declaring "shall" is mandatory and "may" is permissive (Evid. Code, § 11; Gov. Code, § 14) in contending it has no clear duty to avoid wasting water. "May," however, should be interpreted as "shall" and as invoking a mandatory duty *if such an interpretation is necessary to carry out legislative intent.* (See *People* ex rel. *City of Bellflower v. Bellflower County Water Dist.* (1966) 247 Cal.App.2d 344, 352.)[96]

The intent of the Santa Ana Water Board, as revealed in the Fact Sheet (which sets forth the rationale for permit requirements) and the language of Section XI.2 specifying that the tasks

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[93] Fact Sheet at IX.4 (emphasis added).

[94] Moreover, "should" is simply the past tense of "shall." *See Webster's Third International Dictionary* (G. & C. Merriam Co. 1967); *The Random House Dictionary of the American Language* (Random House 1967.)

[95] (1984) Cal.App.3d 185.

[96] *Id.* at 194 (emphasis in original).

therein were intended to be performed "at a minimum," demonstrates that the Permittees were required to undertake these activities, and that they were not considered to be merely discretionary on their part.

Finally, the Proposed Draft concludes that permittees had "already completed" the requirement in Section XI.2 to identify residential areas and activities that are potential sources of pollutants and develop Fact Sheets and BMPs based on statements in the 2006 Report of Waste Discharge (ROWD) referencing a "Public Awareness Survey" survey conducted under the 2002 Permit. Proposed Draft at 146. The ROWD, however, states that this survey was instead conducted to survey residents' *knowledge* as to sources of pollutants in the MS4 system:

> In May 2003, the Permittees conducted a large sample (1,500 respondents) public awareness survey to measure the current level of knowledge held by residents of Orange County. In November 2005, after 30 months of the public education campaign, a follow-up to the baseline survey was conducted. The purpose of the second survey was to assess the extent to which public opinion and knowledge about urban runoff issues have changed and whether Orange County residents have made any behavioral changes as a result of the public education campaign.
>
> The findings indicate that the public information campaign on stormwater and urban runoff has made initial inroads towards increasing awareness. In the majority of questions, awareness of the program and or its elements increased one to three percentage points.

2006 ROWD, Exhibit X to Draft Proposed Decision, at 6-10. This ROWD excerpts does not support the Proposed Draft's conclusion.

Thus, the above-discussed provisions in Section XI are in fact new requirements in the 2009 Permit and represent state mandates requiring a subvention of state funds.

E. Requirements in 2009 Permit Section XIII Regarding Public Education

Section XIII of the 2009 Permit contains public education and outreach requirements. The Proposed Draft concludes that several of the requirements identified in the Test Claim are in fact state mandates, namely (1) the requirement to complete by July 1, 2012 a public awareness survey to determine the effectiveness of the current public and business education strategy, and to include the survey findings and any proposed changes to the program in the 2011-2012 annual report; (2) the requirement to administer individual or regional workshops for identified sectors by July 1, 2010 and annually thereafter, the requirement for commercial and industrial facility inspectors to distribute education information (Fact Sheets) during inspection visits; and (3) the requirement for the principal permittee, in collaboration with the other permittees, to develop and implement a mechanism for public participation in the uploading and implementation of DAMPs, WQMP guidance, and Fact Sheets for various activities, and to inform the public of these documents through various means. Proposed Draft at 153-58.

Claimants agree with the analysis presented in the Proposed Draft, as it comports with applicable mandates law and the facts presented in the Test Claim. In particular Claimants note the statement in the Proposed Draft at pages 156-57 regarding whether general federal MS4 permit regulations required the Section XIII obligations: "Nothing in these provisions, nor

anywhere else in federal law, require the *specific activities* challenged in this Test Claim." Proposed Draft at 157 (emphasis in original).

The Test Claim also identified other new mandates in Section XIII, including requirements in Section XIII.2 (to sponsor or staff tables or booths at various events to distribute public education materials), Section XIII.3 (requirements involving Public Education Committee), Section XIII.4 (requirements regarding outreach to industry and commercial groups), Section XIII.5 (requirements regarding reporting of illegal dumping and discharges), and Section XIII.6 (relating to developing BMP guidance).

The Proposed Draft concludes (at 152-53) that these were not "new" requirements since the 2002 Permit required similar steps. Though these requirements, in some form, may have been contained in the 2002 Permit, for the reasons outlined earlier in these comments, Claimants should be entitled to a subvention of funds because they had no opportunity to bring a test claim before the Commission when the 2002 Permit was first in effect, because Claimants were precluded by statute from bringing such claims and the inclusion of these requirements in the 2009 Permit represents a new requirement. *See* discussion in Section III.B.5, above.

F. Requirements in 2009 Permit Sections X and XI Regarding Inspections

These requirements of the 2009 Permit go to inspections of industrial and commercial facilities. The Proposed Draft concluded that the majority of these requirements, to develop an inventory of industrial and commercial sites that is in Global Information System (GIS) compatible format, to inspect additional categories of commercial facilities, to develop a new prioritization and inspection schedule based on identified criteria, and pending completion of that schedule, to inspect sites on the basis of an interim ranking system, and to develop a mobile business pilot program based on one category of mobile businesses, to develop outreach materials for that business type and an enforcement strategy and BMPs for the business and new requirements, were state mandates. Proposed Draft at 157-67. Claimants concur with that analysis.

IV. COMMENTS ON FUNDING SOURCES SECTION OF PROPOSED DRAFT

The Proposed Draft reaches several conclusions with respect to the sources of funds for the activities it identified as new state-required mandates in the 2009 Permit, all to the effect that Claimants have not shown that they are entitled to a subvention of funds under article XIII B, section 6 of the California Constitution:

1. There is no substantial evidence in the record that Claimants were required to use "proceeds of taxes" to pay for the 2009 Permit requirements at issue in the Test Claim;

2. Claimants had the authority to charge "regulatory fees" sufficient to pay for certain mandates;

3. Beginning on January 1, 2018, the adoption of new California legislation cut off the ability of Claimants to seek a subvention of funds after that date for mandates fundable through property-related fees, by re-defining the term "sewer" in a statute interpreting terms in the state Constitution to include storm drains, and thereby expanding the categories of projects for which a fee may be imposed without a majority vote of approval.

Below, Claimants will show first that there is substantial evidence that Claimants in fact used "proceeds of taxes" (e.g., municipal general funds) to fund the requirements at issue in the Test Claim and second, that some of the costs which the Proposed Draft contends could be recovered through regulatory or other fees could not, due to legal and constitutional restrictions on such recovery.

With respect to the new California legislation, known as "Senate Bill 231" ("SB 231"), Claimants will show that it is an invalid attempt to legislatively modify the California Constitution. Proposition 218, which passed in 1996 and enacted article XIII D, section 6 of the state Constitution ("article XIII D, section 6"), establishing restrictions on the imposition of property-related fees, reflected voter intent to treat sewers as limited to sanitary sewer facilities, and not storm sewers or storm drains. This voter intent cannot be legislatively overridden by SB 231. Therefore, SB 231 should not be relied upon by the Commission to deny Claimants a subvention of funds for activities occurring after January 1, 2018, the effective date of the statute.

A. There is Substantial Evidence that Claimants used "Proceeds of Taxes" to Fund the Obligations in the 2009 Permit

The Proposed Draft concludes that various obligations in the 2009 Permit (such as submitting a Cooperative Watershed Program, inspecting additional categories of industrial and commercial facilities, GIS mapping of facilities, developing a mobile business pilot program, conducting various public education programs and developing a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies) (Proposed Draft at 167-69) constitute "mandated new programs or higher levels of service." Proposed Draft at 167. Claimants submit that additional obligations in the 2009 Permit, those identified in Sections III.B-E above, also constitute mandated new programs or higher levels of service.

However, the Proposed Draft also concludes that the Test Claim failed to present "substantial evidence in the record" that "claimants have been forced to spend their local 'proceeds of taxes' on the new state-mandated activities, and, thus, "there is not a sufficient showing of increased costs mandated by the state within the meaning of article XIII B, section 6 of the California Constitution and Government Code section 17514." Proposed Draft at 169.

Claimants disagree. First, even putting aside the evidence in Claimants' declarations submitted to accompany the Test Claim indicating sources of funds, the ROWDs from 2006 and 2013 (which the Proposed Draft employs to question Claimants' assertions as to funding sources) reflect that "proceeds of taxes" (in the form of general fund and gas tax revenue) were in fact used for significant percentages of the costs of stormwater programs in Orange County. Proposed Draft at 175-77 (reflecting that, respectively, approximately 54% and 41% of funding sources for County permittees constituted proceeds of taxes).

In any event, it is not necessary that Claimants show that they were required to pay for all Test Claim requirements through "proceeds of taxes" to recover a subvention of funds under article XIII B, section 6. Govt. Code § 17556(d) provides that costs are not deemed mandated by the state to the extent the "local agency or school district has the authority to levy service charges, fees, or assessments *sufficient to pay* for the mandated program or increased level of service." (emphasis added). If there are such service charges, etc. available to supplement

general fund revenue, it serves as an offset for the amount of the subvention. *E.g., Clovis Unified School Dist. v. Chiang* (2010).[97] *See also* 2 Cal. Code Reg. § 1183.7(g)(4) (providing that offsets to claims for subvention include fee authority).

Moreover, the Proposed Draft itself notes that the ROWDs "are not broken down by individual city permittees, or by program area." Proposed Draft at 175.[98] Thus, the ROWDs provide no "evidence" at all, much less substantial evidence, of the source of funds utilized by any individual Claimant to pay for the new mandates in the 2009 Permit. The extensive discussion in the Proposed Draft (at 174-78) based solely on the ROWDs' very general categories of funding sources represents, at best, speculation as to those sources.[99]

In contrast, there is substantial evidence in the form of reports required by the 2009 Permit to be filled out and submitted by Claimants to the Santa Ana Water Board as to the source of funds for Permit programs. That evidence is discussed next.

1. Permittees, including Claimants, Were and Are Required to Identify the Source of Funding for 2009 Permit Activities

The 2009 Permit requires, in Section XX.2, that all permittees prepare and submit a "unified fiscal accountability analysis" to the Santa Ana Water Board Executive Officer. The fiscal analysis is required to be "submitted with the annual report" and must, at a minimum, set forth each permittee's expenditures for the previous fiscal year, budget for the current fiscal year, *"[a] description of the source of funds,"* and estimated budget for the next fiscal year. 2009 Permit, Section XX.2 (emphasis added). In addition, under the Monitoring & Reporting Program ("MRP"), which is enforceable as part of the 2009 Permit,[100] permittees must include the financial analysis required by Section XX.2 as part of an "Annual Progress Report." MRP, Section IV.2 and Section IV.2(g). This report in turn is required to be submitted each year to the

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[97] 188 Cal. App. 4th 794, 812 n.8.

[98] While this statement referred to the 2006 ROWD, the same limitation applies to funding source summary information in the 2013 ROWD. *See* Exhibit X submitted by Commission staff, at 153.

[99] In particular, this discussion contains speculation that erroneously characterizes mandates law. In noting that funding data in a ROWD from 2013 reflected slightly lower overall costs paid for by general fund and gas tax monies during Fiscal Year 2011-2012 as compared to FY 2004-2005, the Proposed Draft states that "only the *increase* in costs under the test claim permit is of concern in a test claim analysis." Proposed Draft at 177. This is incorrect. As the Commission itself has held, it is not the permit as a whole at issue in a Test Claim, but those sections of that permit which represent new programs or higher levels of service: "The issues are whether the parts of the permit in the test claim are federal mandates or state mandates, and whether they are a new program or higher level of service." Statement of Decision, 07-T-09, *Discharge of Stormwater Runoff – Order No. R9-2007-0001,* at 40. This Test Claim in fact has identified specified provisions of the 2009 Permit as containing such requirements, and the Proposed Draft has confirmed that certain of those requirements are, in fact, new mandated programs or higher levels of service. Proposed Draft at 167. To the extent that Claimants use proceeds of taxes for the costs of complying with those provisions, they qualify for a subvention of funds. Claimants are submitting herewith additional substantial evidence that the cost of complying with the 2009 Permit, including necessarily the programs at issue in the Test Claim, were paid for by "proceeds of taxes."

[100] 2009 Permit, Section XXI.4 ("[t]he permittees shall comply with Monitoring and Reporting Program NO. R8-2008-0030, and any revisions thereto, which is hereby made a part of this order.") The MRP is included in the record before the Commission.

Santa Ana Water Board Executive Officer and the Regional Administrator of EPA Region 9. MRP, Section IV.2.

The MRP further requires that the permittees "shall be responsible for the submittal to the principal permittee of all required information/materials needed to comply with this order in a timely manner. *All such submittals shall be signed by a duly authorized representative* of the permittee under penalty of perjury." MRP, Section IV.3 (emphasis added).

There is thus evidence available in the form of certified statements by duly authorized permittee representatives, filed each year with the Santa Ana Water Board, which set forth the sources of funding for 2009 Permit requirements, including those at issue in the Test Claim.

2. The Fiscal Analyses Provided by Claimants in their Annual Reports Reflect, in Many Cases, Nearly Complete Reliance on General Funds to Pay For 2009 Permit Requirements

The Proposed Draft concludes that the Commission cannot approve reimbursement for 2009 Permit requirements determined to be mandated new programs or higher levels of service "because there is not substantial evidence in the record that the claimants were forced to used [sic] their proceeds of taxes to pay for these requirements. Unless that evidence is provided, this Test Claim is denied." Proposed Draft at 199. In the following section, Claimants provide that evidence.

Permittees submit their financial analyses along with other information required to be provided in the annual report to the County of Orange, the principal permittee under the 2009 Permit. (Declaration of Sarah Chiang ("Chiang Decl."). ¶ 4). These reports are referred to as the "Program Effectiveness Assessment" ("PEA") (Chiang Decl, ¶ 4). The County maintains copies of such reports in the form of compact discs. *Ibid.* CDs containing permittees' PEAs are hand-delivered by the County to the office of the Santa Ana Water Board. (Chiang Decl., ¶ 5.)

In addition, when the County delivers the PEAs to the Water Board, it also delivers a "wet ink" copy of each permittees' "Signed Certified Statement," which must accompany the PEA. Chiang Decl. at ¶ 5. An example of such a statement is attached as Exhibit 1 to the Chiang Declaration. The language of the Signed Certified Statement recites as follows:

> I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(Chiang Decl., Exhibit 1).

As noted, the financial analysis required in the PEA must set forth information on the "source of funds" for permit activities. This analysis is included in a specific section of the PEAs, Section C-2.4. (Chiang Decl., ¶ 6). The financial analysis section recites that it is intended

"to depict all NPDES compliance related costs" for the city making the report. *Ibid.* Thus, because the 2009 Permit is an NPDES permit, the financial information, including source of funds information, reflects costs associated with complying with the requirements in the 2009 Permit.

To demonstrate that Claimants have, in fact, used "proceeds of taxes," excerpts of PEAs submitted by Claimants Cities of Costa Mesa, Irvine, Lake Forest, Seal Beach, and Villa Park are attached as Exhibits 2-6 to the Chiang Declaration. These excerpts reflect that for all fiscal years represented (ranging from 2009-10 to 2020-21, with some exceptions for missing reports) those cities' source of funding for stormwater activities, including compliance with 2009 Permit requirements, was entirely or almost entirely general fund revenue and in some cases, gas tax revenue. As the Proposed Draft states, both funding streams constitute "proceeds of taxes." Proposed Draft at 176.

This evidence is reinforced by the Declarations of Seung Yang, P.E., Thomas Lo, Devin Slavin, David Spitz, P.E., and Steve Franks, on behalf of the Cities of Costa Mesa, Irvine, Lake Forest, Seal Beach and Villa Park (filed herewith), in which the declarants confirm that expenditures for 2009 Permit requirements, which necessarily include the requirements at issue in the Test Claim, were funded entirely or almost entirely by general fund revenues over the time periods relevant to the Test Claim.

While these cities have used general fund revenues for 2009 Permit compliance requirements, they are not the only Claimants who have used such revenues. For example, annual reports filed by the City of Cypress disclosed that the city used 100% general fund sources for all permit obligations. (Chiang Decl., ¶ 6).

Absent grants or other fee sources, Claimants have been constitutionally limited in their ability to obtain funding for 2009 Permit requirements due to the decision of the court in *Howard Jarvis Taxpayers Ass'n v. City of Salinas.*[101] Proposed Draft at 170.[102] *City of Salinas* held that the exemption from voter approval requirements for property-related fees in California Constitution article XIII D, article 6 applicable to "fees or charges for sewer, water, and refuse collection services" did not extend to storm sewer services and did not apply to a property-related fee to pay the costs of controlling stormwater pollution.[103] The Proposed Draft concluded, correctly, that this voter approval requirement means that "the fee authority is not sufficient as a matter of law to fund the costs of the mandated activities." Proposed Draft at 170.

Thus, in light of the evidence that Claimants have, in fact, used general fund revenue to fund requirements under the 2009 Permit, including requirements that are the subject of the Test Claim, Claimants submit that they have satisfied the requirement in the Proposed Draft that they provide evidence of the use of "proceeds of taxes" to pay for those requirements. In light of that evidence, the Commission has no reason not to find that Claimants are entitled to a subvention of

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[101] (2002) 98 Cal.App.4th 1351.

[102] Such a holding was also reflected in the Commission's decision in *Discharge of Stormwater Runoff,* 07-TC-09, as noted in the Proposed Draft, at 170.

[103] 98 Cal.App.4th at 1358-59. The supposed impact of legislation effective after January 1, 2018, purporting to amend the exception to include stormwater fees is discussed in Section IV.C, below.

state funds for requirements determined to be mandated new programs or higher levels of service.

B. Claimants Do Not Have Regulatory Fee Authority to Recover the Costs of Various 2009 Permit Requirements or Otherwise Lack Fee Authority

The Proposed Draft concludes that, with respect to requirements in Sections XIII, IX and X, Claimants have regulatory fee authority sufficient as a matter of law. Proposed Draft at 189-90. However, as set forth in this section, Claimants lack such authority for additional provisions in the 2009 Permit.

Article XI, section 7 of the California Constitution provides that a municipality "may make and enforce within its limits all local, police, sanitary, and other ordinances and regulations not in conflict with general laws." Proposed Draft at 181. Courts have traditionally interpreted this power to authorize "valid regulatory fees."[104] This fee-setting power is, however, limited by California case law as well as amendments to the Constitution adopted through the initiative process in Propositions 218 and 26. With regard to case law, the recent case of *Dept. of Finance v. Commission on State Mandates*[105]outlines these limitations:

> A regulatory fee is valid "if (1) the amount of the fee does not exceed the reasonable costs of providing the services for which it is charged, (2) the fee is not levied for unrelated revenue purposes, and (3) the amount of the fee bears a reasonable relationship to the burdens created by the fee payers' activities or operations" or the benefits the fee payers receive from the regulatory activity. (*California Building Industry Assn. v. State Water Resources Control Bd.* (2018) 4 Cal.5th 1032, 1046, citing *Sinclair Paint Co. v. State Bd. of Equalization* (1997) 15 Cal.4th 866, 881). The third element is a question "of fair allocation" that "considers whether any class of fee payers is shouldering too large a portion of the associated regulatory costs." (*California Building Industry Assn. v. State Water Resources Control Bd., supra*, at p. 1052.)[106]

The Proposed Draft's conclusion that Claimants have fee authority does not address provisions in Section XII that require the permittees to devise various planning documents to assist developers in applying LID and HMP principles to PDPs."[107] These provisions, referred to as the "LID/HMP Implementation Requirements," are:

(1) Section XII.B.1, requiring permittees to "annually review the existing structural treatment control and other BMPs for New Development and submit any changes for review and approval by the Executive Officer" and further for the Principal Permittee to "revise the appropriate tables in the Water Quality Management Plan [for new development projects] with the latest information on BMPs and provide additional clarification regarding their effectiveness and applicability."

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[104] *Mills v. County of Trinity* (1980) 108 Cal.App.3d 656, 662.

[105] (2021) 59 Cal.App.5th 546.

[106] *Dept. of Finance, supra,* 59 Cal.App.5th at 562.

[107] As discussed in Section III.C.1, the Proposed Draft does not discuss these requirements in its evaluation of the merits of the Test Claim on Sections XII of the 2009 Permit.

(2) Section XII.C.1, requiring permittees to "update the model WQMP to incorporate LID principles (as per Section XII.C) and to address the impact of urbanization on downstream hydrology (as per Section XII.D)" and, within 12 months after the adoption of the 2009 Permit submit the updated model WQMP "for review and approval by the Executive Officer."

(3) Section XII.D.5, requiring permittees to prepare a Watershed Master Plan for each of four identified watersheds, which are required to integrate water quality, hydromodification, water supply, and habitat, and include maps to identify areas susceptible to hydromodification and a hydromodification model to use as a tool for project developers to select storm water preventative and mitigative site BMPs. Permittees were required to submit the maps and a model plan for one watershed by May 22, 2011, and the model plan had to specify hydromodification standards for each sub-watershed and provide assessment tools. The model plan was required to be submitted for approval by the Executive Officer, and Watershed Master Plans were required to completed for all watersheds 24 months after approval of the model plan.

(4) Section XIII.E.1, requiring the principal permittee in collaboration with the other permittees, to develop technically based feasibility criteria for project evaluation to determine the feasibility of implementing LID BMPs and to submit that to the Executive Officer for approval.

All work on the LID/HMP Implementation Requirements was to be completed by 12 months after Permit adoption (*e.g.*, May 11, 2010).[108] Until the model WQMP was approved, PDPs were not subject to the requirements of Section XII.[109] Thus, the LID/HMP Planning Requirements would necessarily be completed *before* it was known how many private PDPs (the only ones on which a fee could be charged) would actually be subject to LID/HMP requirements.

1. Because the LID/HMP Planning Requirements Generally Benefitted Downstream Communities and the Citizens of Orange County, any Attempt to Allocate Costs Only to Developers of Priority Development Projects Would Violate the Constitution

While this section discusses limitations on the ability of municipalities to fund activities through regulatory fees, the LID/HMP Planning Requirements are not chargeable through fees because the requirements "redound to the benefit of all[.]" *Newhall County Water Dist. v. Castaic Lake Water Agency.*[110] *Newhall County* held that a charge imposed by a water agency for creating "groundwater management plans" as part of the agency's groundwater management program could not be imposed as a fee. The court reasoned that the charge was "not [for] specific services the Agency provides directly to the [payors], and not to other [non-payors] in the Basin. On the contrary, groundwater management services redound to the benefit of all groundwater extractors in the Basin – not just the [payors]."[111] *See also Dept. of Finance II, supra,* holding

[108] 2009 Permit Section XII.C.1 and XII.E.1.

[109] 2009 Permit Section XII.J (requirements in Section XII to be implemented for all PDPs 90 days after approval of the revised model WQMP.)

[110] (2016) 243 Cal.App.4th 1430, 1451.

[111] *Ibid.*

that placing trash receptacles at transit stops benefitted the "public at large"[112] and that associated costs could not be passed on to any particular person or group.[113]

The LID/HMP Implementation Requirements, which enable developers of private PDPs to design projects with LID and HMP intended to reduce the impacts of those projects, similarly benefit the public at large. For example, findings in the 2009 Permit discuss threats to communities posed by excess urban runoff intended to be addressed by LID and HMP measures. Finding L.60 under the heading "New Development/Significant Redevelopment – WQMP/LIP/LID," states in relevant part that "[u]rban development increases impervious surfaces and storm water runoff volume and velocity and decreases vegetated, pervious surface areas available for infiltration and evapotranspiration of storm water. Increase in runoff volume and velocity can cause scour, erosion . . . aggradation . . . and can change fluvial geomorphology, hydrology and aquatic ecosystems. This order includes requirements to address increases in imperviousness and changes in water quality and quantity, including hydrologic conditions of concern." Similarly, Finding L.60 notes that recent "studies have indicated that low impact development (LID) BMPs are effective storm water management tools that minimize adverse impacts on storm water runoff quality and quantity resulting from urban developments."

The LID/HMP Implementation Requirements established guidance for LID BMPs and HMP measures to be implemented in PDPs. As such they benefit the entire downstream community, not simply the project proponents. Thus, the costs of developing the Requirements could not be constitutionally assessed by imposing fees on a subset of those entities, e.g., developers of PDPs. A charge for these requirements would thus have to be assessed as a property-related fee, which required voter approval pursuant to article XIII D, section 6 of the Constitution. Under the law existing at the time of these requirements, fees requiring voter approval were not sufficient, as a matter of law, to fund the cost of these mandated activities. *See* Proposed Draft at 170.

Even were the LID/HMP Implementation Requirements potentially payable by fees, because the permittees could not know how many private developers would employ them, Constitutional requirements made it impossible for permittees to allocate the cost of those fees to developers in accord with those requirements.

2. Because the Number of Priority Development Projects Utilizing the LID/HMP Implementation Requirements Was Unknown When the Requirements Were Developed, Permittees Had No Way to Fairly Allocate the Costs in Accordance with Law

While the costs associated with developing the LID/HMP Implementation Requirements were known to the permittees, what was not known at the time of their completion was the number of private PDPs that would use the Requirements in their planning and could therefore be assessed a reasonable fee in an amount "no more than necessary to cover the reasonable costs

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[112] 59 Cal.App.5th at 569.

[113] *See also* Calif. Const. article XIII D, section 6(b)(5), which prohibits fees "for general governmental services . . . where the service is available to the public at large in substantially the same manner as it is to property owners."

of the government activity" or allocated to a payor in a manner which bore "a fair or reasonable relationship to the payor's burdens on, or benefits received from, the governmental activity." Cal. Const. article XIII C, section 1(e). Article XIII C, section 1(e) was added to the Constitution by Proposition 26, effective November 3, 2010. Since this occurred during development of the LID/HMP Implementation Requirements, Article XIII C is relevant to this discussion. However, as the Proposed Draft notes, Proposition 26 largely reflected teachings in previous court cases, including *Sinclair Paint v. State Board of Equalization.*[114] Proposed Draft at 184.

A number of cases have discussed limits on how payors are to be assessed costs for governmental programs. For example, in *Cal. Farm Bureau Fed. v. State Water Resources Control Bd.*[115] the court held that an aggregate charge imposed, "measured collectively, considering all . . . payors" cannot exceed the cost of the service provided.[116] This is directly applicable to charges associated with the LID/HMP Implementation Requirements. Given that the cost of preparing the Requirements was known but the number of developers using the Requirements was not, charging each developer a set fee, could well exceed the aggregate cost. This would result in a fee which exceeded the reasonable costs of the activity, rendering it a "tax" under article XIII C, section 1(e).

On the other hand, were permittees to stop charging fees after recouping all costs associated with the Requirements, the developers who already paid the fee would have paid an amount that did not represent a "fair or reasonable" relationship to the developers' "burdens on or benefits from" the Requirements.[117] Because the ultimate number of priority development projects could not be known, there was no ability of permittees to allocate costs on any reasonable basis, such as an emission-based formula validated in *San Diego Gas & Electric Co. v. San Diego County Air Pollution Control Dist.*[118]

Given these issues, the cost of the LID/HMP Planning Requirements could not be constitutionally assessed and therefore permittees would have to obtain voter approval.[119] Thus, Claimants lack fee authority.

3. Claimants Also Lack Fee Authority for Additional Provisions in the 2009 Permit that Constitute New Mandated Programs or Higher Levels of Service

In the discussion in Section III above, Claimants have identified additional provisions in the 2009 Permit that constitute new mandated programs or higher levels of service. Of these, the provisions in Section XVIII of the Permit relating to TMDLs, by necessity, all concern property-

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[114] (1997) 15 Cal. 4th 866.

[115] (2011) 51 Cal.App.4th 421, 438.

[116] *See also Sinclair Paint,* 15 Cal. 4th at 876.

[117] *Sinclair Paint, supra,* 15 Cal. 4th 878; *see also* Cal. Const. article XIII C, section 1(e).

[118] (1988) 203 Cal.App.3d 1132.

[119] The costs incurred to develop the LID/HMP Implementation Requirements all were incurred prior to the effective date of SB 231, January 1, 2018.

related requirements, as the benefits of cleaner water apply generally to all residents and cannot be charged to a particular activity as a regulatory fee, assessed on particular persons receiving benefits from the service as a user fee, or assessed on developers of real property as a development fee.

Indeed, the Proposed Draft acknowledges that the one TMDL provision in Section XVIII which it found to constitute a state-mandated new program or higher level of service, that requiring development of a Cooperative Watershed Program, would fall under the category of property-related fees. Proposed Draft at 170. Such costs would be subject to the majority vote requirement in Calif. Const. article XIII D, section 6(c). Because of that voter approval requirement, the Commission has determined that Claimants did not have the authority to charge or assess such fees as a matter of law. Proposed Draft at 170.

The same analysis would apply to the costs of LID and HMP BMPs required for public PDPs discussed in Section III.C.2 above, since a regulatory or development fee cannot be assessed against a public entity.

With respect to requirements in Section XI relating to residential programs, the Proposed Draft identified the requirement to develop a pilot program to control discharges from common interest areas and areas managed by homeowner associations or management companies as one for which property-related fees would apply. Since such fees would be subject to the majority voter approval requirement of Article XIII, the Proposed Draft correctly determined that the fees were not sufficient as a matter of law. Proposed Draft at 170. The other requirements of Section XI identified by Claimants in Section III.D above, requirements in Section XI.2, XI.3, and XI.6, also would be subject to such fees, as general programs benefitting residential areas cannot be allocated as user, regulatory, or development fees.

A similar analysis applies to the requirements of 2009 Permit Section XIII relating to public outreach and education, since requirements aimed at the general public are not susceptible to repayment through regulatory fees. In addition to those requirements identified as reimbursable state mandates in the Proposed Draft, the additional requirements in this section, Sections XIII.2, XIII.3, XIII.4, XIII.5 and XIII.6, also would qualify as property-related.

C. SB 231, Which Claims to "Correct" a Court's Interpretation of article XIII D, section 6 of the California Constitution, Misinterprets Proposition 218 and the Historical Record and Should Not Be Relied Upon by The Commission

As discussed above, *Howard Jarvis Taxpayers Assn. v. City of Salinas ("City of Salinas")* determined that the exclusion from the majority taxpayer vote requirement for property-related fees for "sewer services" in article XIII D, section 6(c) of the California Constitution, did not cover storm sewers or storm drainage fees.[120]

In 2017, fifteen years after the decision in *City of Salinas,* the Legislature enacted SB 231, which amended Govt. Code § 53750 to define the term "sewer" (which is contained in Calif. Const. article XIII D, section 6(c)):

[120] 98 Cal. App. 4th at 1358-359.

> "Sewer" includes systems, all real estate, fixtures, and personal property owned, controlled, operated, or managed in connection with or to facilitate sewage collection, treatment, or disposition for sanitary or drainage purposes, including lateral and connecting sewers, interceptors, trunk and outfall lines, sanitary sewage treatment or disposal plants or works, drains, conduits, outlets for surface or storm waters, and any and all other works, property, or structures necessary or convenient for the collection or disposal of sewage, industrial waste, or surface or storm waters. "Sewer system" shall not include a sewer system that merely collects sewage on the property of a single owner.

Govt. Code § 53750(k).

SB 231 also added Govt. Code § 53751, which sets forth findings as to the legislative intent in amending § 53750 to encompass storm sewers and drainage in the definition of "sewer." Section 53751 states that the Legislature intended to overrule *City of Salinas* because that court failed, among other things, to recognize that the term "sewer" had a "broad reach" "encompassing the provision of clean water and then addressing the conveyance and treatment of dirty water, whether that water is rendered unclean by coming into contact with sewage or by flowing over the built-out human environment and becoming urban runoff." Govt. Code § 53751(h).

The Legislature also included a finding that "[n]either the words 'sanitary' nor 'sewerage' are used in Proposition 218, and the common meaning of the term 'sewer services' is not 'sanitary sewerage.' In fact, the phrase 'sanitary sewerage' is uncommon." Govt. Code § 53751(g). SB 231 further cites a series of pre-Proposition 218 statutes and cases which, the legislation asserts, "reject the notion that the term 'sewer' applies only to sanitary sewers and sanitary sewerage." Govt. Code § 53751(i).

The Proposed Draft states that the "Commission presumes the validity of Government Code sections 53750 and 53751, as amended" and concludes that the adoption of SB 231, combined with the decision of the court in *Paradise Irrigation Dist. v. Commission on State Mandates*[121]renders any costs incurred by Claimants after January 1, 2018 (the effective date of SB 231) "not eligible for reimbursement." Proposed Draft at 197.[122]

1. SB 231 Does Not Apply Retroactively

The Proposed Draft concludes that the amendments to Govt. Code §§ 53750 and 53751 operate *prospectively* from January 1, 2018 and thus do not have retroactive effect. Proposed Draft at 193. To the extent that SB 231 has any application to the Test Claim, Claimants concur with the finding that SB 231 is not retroactive. In addition to the cases discussed in the Proposed Draft, Claimants note, first, that there is a strong presumption in California against the retroactive application of statutes. Civil Code § 3 ("No part of it is retroactive, unless expressly

[121] (2019) 33 Cal.App.5th 205.

[122] The applicability of *Paradise Irrigation Dist.* to this test claim depends on whether SB 231 is valid. If it is not, as Claimants assert, a local government could not even assess a fee without it being subject to a majority vote.

so declared."). *See also Evangelatos v. Superior Court.*[123] Second, if the question of retroactive application is ambiguous, that ambiguity is to be resolved in favor of prospective application. *Myers v. Philip Morris Companies, Inc.*[124]

Nothing in the language of SB 231 indicates that the Legislature intended it to apply retroactively. There is no statement of retroactive application in Sections 53750 and 53751, and other language in the statutes suggests otherwise. For example, Section 53751(a) references the *"[o]ngoing*, historic drought" (emphasis added); Section 53751(k) provides that the "plain meaning rule *shall apply* in conjunction with the definitions" provided in Section 53750 (emphasis added); and, while pre-Proposition 218 cases are cited, Sections 53751 (j), (k) and (m) cite two cases and a statute dating from 2013 and later, well after adoption of Proposition 218.

2. The Plain Language and Structure of Proposition 218 Do Not Support SB 231's Definition of "Sewer" in Govt. Code § 53750

When it comes to the validity of any statute purporting to interpret the California Constitution, it is undisputed that the final word is left to the courts.[125] For this reason, the ultimate validity of SB 231 is not before the Commission. It would be error, however, for the Commission to follow SB 231 to deny Claimants a subvention of funds for costs expended after January 1, 2018. This is so because in seeking to overrule *City of Salinas,* SB 231 attempts to reinterpret the Constitution in contradiction of the intent of the voters when they adopted Proposition 218. Because the Constitution cannot be modified by a legislative enactment,[126] SB 231 is unconstitutional on its face, and should not be relied upon by the Commission.

SB 231 represents an attempt to re-define the meaning of a Constitutional provision, article XIII D, section 6, through an amendment to legislation enacted to implement Proposition 218, the Proposition 218 Omnibus Implementation Act, Govt. Code § 53750 *et seq.* The Legislature made no attempt to define "sewer" in the original Act, which was enacted in 1997, nor in subsequent amendments prior to SB 231. SB 231 sought to do so 21 years after passage of Proposition 218 (and 20 years after the Implementation Act). Notably, the Legislature waited 15 years after the allegedly erroneous holding in *City of Salinas*[127] to enact a "correction."

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[123] (1988) 44 Cal. 3d 1188, 1209 ("As we have explained, under Civil Code section 3 and the general principle of prospectivity, the absence of any express provision directing retroactive application strongly supports prospective operation of the measure.").

[124] (2002) 28 Cal. 4th 828, 841 ("[A] statute that is ambiguous with respect to retroactive application is construed . . . to be unambiguously prospective." (quoting *I.N.S. v. St. Cyr* (2001) 533 U.S. 289, 320, fn. 45)).

[125] *Cf. City of San Buenaventura v. United Water Conservation Dist.* (2017 Cal. 5th 1191, 1209 n.6 ("the ultimate constitutional interpretation must rest, of course, with the judiciary."); *see also County of Los Angeles v. Comm'n on State Mandates, supra,* 150 Cal.App.4th at 921 (overruling statute that purported to shield MS4 permits from article XIII B section 6 and holding that a "statute cannot trump the constitution.")

[126] *County of Los Angeles, supra,* 150 Cal.App.4th at 921.

[127] Govt. Code § 53751(e)-(f).

In Govt. Code § 53751(f), the Legislature found that the *City of Salinas* court "failed to follow long-standing principles of statutory construction by disregarding the plain meaning of the term "sewer." In so finding, the Legislature itself ignored such principles.

In interpreting the meaning of voter initiatives, courts are charged with determining the intent of the voters. *Professional Engineers in California Government v. Kempton.*[128] To ascertain that intent, courts turn first to the initiative's language, giving words their ordinary meaning as understood by "the average voter." *People v. Adelmann.*[129] The initiative must also be construed in the context of the statute as a whole and the scheme of the initiative. *People v. Rizo.*[130] In addition, if there is ambiguity in the initiative language, ballot summaries and arguments may be considered as well as reference to the contemporaneous construction of the Legislature. *Professional Engineers, supra;*[131] *Los Angeles County Transportation Comm. v. Richmond.*[132]

In construing a statute or initiative, every word must be given meaning. *City of San Jose v. Superior Court.*[133] If the Legislature (or the voters) use different words in the same sentence, it must be assumed that their intent was that the words have different meanings. *K.C. v. Superior Court.*[134]

In the case of Proposition 218, the word "sewer" is used both in article XIII D, section 5 and in article XIII D, section 6. Section 5 exempts from the majority protest requirement in article XIII D, section 4 "[a]ny assessment imposed exclusively to finance the capital costs or maintenance and operation expenses for sidewalks, streets, *sewers*, water, flood control, *drainage systems* or vector control. " Calif. Const. article XIII D, section 5(a) (emphasis added). There, the term "sewer" is set forth separately from "drainage systems," which the Legislature defined as "any system of public improvements that is intended to provide for erosion, control, for landslide abatement, or for *other types of water drainage.* " Govt. Code § 53750(d) (emphasis added). Since both "sewer" and "drainage systems" (which refer to systems which drain stormwater, including storm sewers) are contained in the same sentence, it must be presumed that the voters intended that "sewer" mean something other than "public improvements . . . intended to provide for . . . other types of water drainage."

Moreover, the word "sewer," but not the term "drainage systems" then also appears in article XIII D, section 6. A longstanding principle of statutory construction is that when language is included in one portion of a statute, "its omission from a different portion addressing a similar subject suggests that the omission was purposeful." *E.g., In re Ethan C.*[135]

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[128] (2007) 40 Cal. 4th 1016, 1037

[129] (2018) 4 Cal. 5th 1071, 1080

[130] (2000) 22 Cal. 4th 681, 685.

[131] 40 Cal. 4th at 1037.

[132] (1982) 31 Cal.3d 197, 203.

[133] (2017) 2 Cal. 5th 608, 617.

[134] (2018) 24 Cal.App.5th 1001, 1011 n.4.

[135] (2012) 54 Cal. 4th 610, 638.

The Supreme Court in *Richmond v. Shasta Community Services Dist.* used this tool to analyze article XIII D to determine if a capacity charge and a fire suppression charge imposed by a water district were "property related":

> Several provisions of article XIII D tend to confirm the Legislative Analyst's conclusion that charges for utility services such as electricity and water should be understood as charges imposed "as an incident of property ownership." For example, subdivision (b) of section 3 provides that 'fees for the provision of electrical or gas service shall not be deemed charges or fees imposed as an incident of property ownership' under article XIII D. Under the rule of construction that the expression of some things in a statute implies the exclusion of other things not expressed (*In re Bryce C.* (1995) 12 Cal.4th 226, 231), the expression that electrical and gas service charges are not within the category of property-related fees implies that similar charges for other utility services, such as water and sewer, are property-related fees subject to the restrictions of article XIII D."[136]

A similar analysis of Article XIII D supports the conclusion that the voters' intent was that "sewers" referred to sanitary sewers, not storm drainage systems. As noted above, the municipal infrastructure listed in article XIII D, section 5 includes both "sewers" and "drainage systems." By contrast, article XIII D, section 6(c) refers only to "sewer" in exempting from the majority vote requirement "sewer, water and refuse collection services." Given that another section of the proposition specifically called out "drainage systems" as different from "sewers," the absence of the former term requires that it be presumed that the voters understood "sewer" or "sewer services" in section 6(c) to be limited to sanitary sewers. *Richmond, supra.*

The proponents of Proposition 218 also expressed an intent that it "be construed liberally to curb the rise in "excessive" taxes, assessments, and fees exacted by local governments without taxpayer consent."[137] Any interpretation of the breadth of the meaning of the exception for "sewer services" must therefore take that intent into account and interpret exceptions to limits on the taxing or fee power narrowly.

Thus, the unambiguous, plain meaning of article XIII D, section 6(c) is that the term "sewer" or "sewer services" pertains only to sanitary sewers and not to MS4s. In attempting to expand the facilities and services covered by this term, SB 231 is an invalid modification of Proposition 218 that seeks to override voter intent. SB 231 does not provide authority to bar Claimants from seeking a subvention of funds for costs incurred after January 1, 2018.

While resort to interpretive aids is not required when a term in a statute is clear, SB 231 nevertheless justifies its amendment of Govt. Code § 53750 by asserting that "[n]umerous sources predating Proposition 218 reject the notion that the term "sewer" applies only to sanitary sewers and sanitary sewerage." Govt. Code § 53751(i). These "sources" include:

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[136] (2004) 32 Cal. 4th 409, 427.

[137] *City of Salinas,* 98 Cal. App. 4th at 1357-58.

(a) Pub. Util. Code § 230.5: This statute is referenced[138] as the source for the "definition of 'sewer' or 'sewer service' that should be used in the Proposition 218 Omnibus Implementation Act. The statute defines "sewer system" to include both sanitary and storm sewers and appurtenant systems. However, this is an isolated statutory example and it is found in a section of the Public Utilities Code dealing with privately owned sewer and water systems regulated by the Public Utilities Commission,[139] and not a "system of public improvements that is intended to provide . . . for other types of water drainage." Govt. Code § 53750(d). Such small systems may well serve both as a sanitary and storm system, but they are not typical of the MS4 systems being regulated by the 2009 Permit or of the public-supported projects that Proposition 218 was written to address. Moreover, the fact that the statute goes to the effort to define "sewer system" to include both sanitary and storm sewers shows that, without such an explicit definition, the tendency would be to consider only sanitary sewers to fall under the definition of "sewer."

(b) Govt. Code § 23010.3. This statute[140] relates to the authorization for counties to spend money for the construction of certain conveyances, and defines those conveyances as "any sanitary sewer, storm sewer, or drainage improvements . . ." This does not further the arguments made in SB 213, since the statutory language calls out "sanitary sewer," "storm sewer" and "drainage improvements" as separate items, and also contradicts the statement in Govt. Code § 53751(g) that the phrase "sanitary sewerage" is uncommon. The similar phrase "sanitary sewer" is commonly found, as noted elsewhere below.

(c) The Street Improvement Act of 1913: Govt. Code § 53751(i)(3) references only the name of this statute, Streets & Highways Code §§ 10000-10706, but cites no section which supports the interpretation of Proposition 218 promoted by SB 213. However, Streets & Highways Code § 10100.7, which allows a municipality to establish an assessment district to pay for the purchase of already constructed utilities, separately defines "water systems" and "sewer systems," with the latter clearly limited to sanitary sewers: "sewer system facilities, including sewers, pipes, conduits, manholes, treatment and disposal plants, connecting sewers and appurtenances for providing sanitary sewer service, or capacity in these facilities . . . ." *Ibid.*

(d) *Los Angeles County Flood Cont. Dist. v. Southern Cal. Edison Co.*[141] is cited[142] for the proposition that the California Supreme Court "stated that 'no distinction has been made between sanitary sewers and storm drains or sewers.'" This case involved the responsibility of defendant Edison to pay for the relocation of its gas lines to allow for construction of District storm drains. In stating that there was no distinction (as to the payment obligation) between sanitary sewers and storm drains or sewers, the Court was not commenting on whether a "sewer" *qua* "sewer" necessarily filled both sanitary and storm functions. And, again, the Court

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[138] Govt. Code § 53751(i)(1)

[139] *See* Pub. Util. Code § 230.6, defining "sewer system corporation" to include "every corporation or person owning, controlling, operating, or managing any sewer system for compensation within this state."

[140] Cited in Govt. Code § 53751(i)(2).

[141] (1958) 51 Cal.2d 331.

[142] Cited in Govt. Code § 53751(i)(4)

distinguished between "sanitary sewers" and "storm drains or sewers" in the language of the opinion.

(e) *County of Riverside v. Whitlock* (1972) 22 Cal.App.3d 863, *Ramseier v. Oakley Sanitary Dist.* (1961) 197 Cal.App.2d 722, and *Torson v. Fleming* (1928) 91 Cal. App. 168. These cases are cited in Govt. Code § 53751(i)(5) as examples of "[m]any other cases where the term 'sewer' has been used interchangeably to refer to both sanitary and storm sewers." These cases, however, are more limited in their holdings. *County of Riverside* refers to "sewer" only in a footnote, which quotes from an Interim Assembly Committee Report discussing public improvements including "streets, storm and sanitary sewers, sidewalks, curbs, etc."[143] However, in another footnote which quoted from Street & Highways Code § 2932 regarding assessments for public improvements, the phrase "sewerage or drainage facilities" is employed, again reflecting a distinction between these functions and assigning the function of sanitary services to "sewerage."[144]

Ramseier involved a dispute over a contract to expand the district's "storm and sanitary sewer system." [145] This was the only reference to "sewers" in the case, and the reference distinguishes between "storm" and "sanitary" sewers. The reason for citation to *Torson* is unclear, though the case involved a requested extension of a sanitary sewer, and the statutes cited in the case referred, separately, to both "sanitary" and "storm" sewers.[146] While these cases present only limited examples of how the term "storm sewer" or "sanitary sewer" were employed, it is clear that in all, a distinction is drawn between sanitary sewers and storm sewers.

3. There is Significant Evidence that the Legislature and the Courts Considered "Sewers" to be Different from "Storm Drains" Prior to the Adoption of Proposition 218

There are numerous examples in pre-Proposition 218 California statutes and cases of the term "sewer" being used to denote sanitary sewers, and not storm sewers. For example, Education Code § 81310, in referring to the power of a community college board to convey an easement to a utility, refers to "water, *sewer*, gas, or *storm drain* pipes or ditches, electric or telephone lines, and access roads." (emphasis added). There is no ambiguity in this statute – the "sewer" being referred cannot be a storm sewer, as "storm drain" pipes are specifically referenced.[147]

Another example is Govt. Code § 66452.6, referring to the timing of extensions for approval of a subdivision tentative map act, and defining "public improvements" to include "traffic controls, streets, roads, highways, freeways, bridges, overcrossings, street interchanges,

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[143] 22 Cal.App.3d at 874 n.9.

[144] 22 Cal.App.3d at 869 n.8.

[145] 197 Cal.App.2d at 723.

[146] 91 Cal. App. at 172.

[147] *K.C., supra,* 24 Cal.App.5th at 1011 n.4 (when Legislature uses different words in the same sentence, it is assumed that it intended the words to have different meanings).

flood control or storm drain facilities, *sewer facilities*, water facilities, and lighting facilities."[148] Again, there is no ambiguity; the Legislature separately defined "flood control or storm drain facilities" from "sewer facilities," with the latter taken on the same meaning ascribed to it in *City of Salinas.*

Similarly, Health & Safety Code § 6520.1, relating to the power of sanitary districts, provides that a district can prohibit a private property owner from connecting "any house, habitation, or structure requiring *sewerage or drainage* disposal service to any privately owned *sewer* or *storm drain* in the district." Again, "sewer" here is used by the Legislature as a sanitation utility separate and apart from drainage. This practice of defining "sewer" as a sanitary utility distinct from "storm drain" has continued after the adoption of Proposition 218. In Water Code § 8007, effective May 21, 2009, the Legislature made the extension of certain utilities by cities into disadvantaged unincorporated areas subject to the prevailing wage law, and defined those utilities as the city's "water, *sewer, or storm drain* system." (emphasis added).

Cases, too have used the term "sewer" to mean a sanitary sewer, handling sewage, as opposed to storm drains. For example, in *E.L. White, Inc. v. Huntington Beach,*[149] the Supreme Court used the terms "storm drain" and "sewer" separately in discussing the liability of the city and a contractor for a fatal industrial accident. Also, in *Shea v. Los Angeles*, the court referred to the "sanitary sewer" and "sewers" in addition to a "storm drain."[150] In *Boyton v. City of Lockport Mun. Sewer Dist.*, the court discussed whether "sewer rates" were properly assessed by the city, and in that case, the court consistently used the term "sewer" to refer to sanitary sewers handling sewage.[151]

The examples of these statutes and cases, as well as the language in Proposition 218 itself, demonstrates that there was no "plain meaning" of "sewer" as a term that meant both sanitary and storm sewers. In fact, the better argument is that the term was understood by the voters to mean solely sanitary sewers which, long before the adoption of comprehensive federal MS4 regulations in 1990 (*see* Proposed Draft at 45-46), had been paid for, along with water and refuse services, through property assessments. By contrast, a storm drain ordinance, such as that attempted to be passed by the City of Salinas, was relatively new, reflecting the greater costs imposed on city agencies by the new stormwater permitting requirements.

Thus, there is significant evidence, in the language of the ballot measure itself, in the interpretation courts are required to give to the measure, and in the prevailing legislative and judicial usage of the term "sewer," to find that the voters on Proposition 218 intended the result found by the court in *City of Salinas.* As such, SB 231 is an unconstitutional attempt by the Legislature to rewrite history and should not be relied upon by the Commission to refuse a subvention of funds for the costs of unfunded state mandates in the 2009 Permit incurred after January 1, 2018.

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[148] Govt. Code § 66452.6(a)(3) (emphasis added).

[149] (1978) 21 Cal.3d 497.

[150] (1935) 6 Cal.App.2d 534, 535-36.

[151] (1972) 28 Cal.App.3d 91, 93-96.

V. CONCLUSION

In these Comments, Claimants have demonstrated that in many ways, the Proposed Draft has overlooked governing principles of law and controlling facts that support this Test Claim brought on the 2009 Permit. Claimants acknowledge that the regulatory scheme applicable to stormwater discharges is complex, and these Comments have been written in an effort to bring clarity to the analysis.

In summary, Claimants are entitled to a subvention of funds under article XIII B, section 6 of the California Constitution for those requirements in Sections XVIII, XII, XI, XIII and X identified in the discussion above. Moreover, Claimants have adduced substantial evidence that they were required to use "proceeds of taxes" to pay for those requirements. They have also demonstrated that funding for certain obligations cannot be obtained through regulatory or development fees. Finally, the Commission should not rely on SB 231 to deny Claimants a subvention of funds for costs incurred after January 1, 2018 because that statute ignores the voter's intent in adopting Proposition 218.

Claimants appreciate this opportunity to provide their comments on the Proposed Draft. I declare under penalty of perjury that the foregoing, signed on November 4, 2022, is true and correct to the best of my personal knowledge, information, or belief.

BURHENN & GEST LLP
HOWARD GEST
DAVID W. BURHENN

By:
David W. Burhenn, Claim Representative
624 S. Grand Ave., Suite 2200, Los Angeles, CA 90017
(213) 629-8788
dburhenn@burhenngest.com

DECLARATIONS AND EXHIBITS IN SUPPORT OF CLAIMANTS' COMMENTS ON DRAFT PROPOSED DECISION

California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2009-0030, Sections IX, X, XI, XII, XIII, and XVIII, **09-TC-03, Santa Ana Regional Water Quality Control Board, Resolution No. R8-2009-0030, adopted May 22, 2009**

DECLARATION OF DAVID W. BURHENN AND EXHIBITS THERETO

DECLARATION OF DAVID W. BURHENN

I, DAVID W. BURHENN, hereby declare and state as follows:

1. I am an attorney with the firm of Burhenn & Gest LLP, counsel for the County of Orange and joint claim representative for Claimants in *California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2009-0030, Sections IX, X, XI, XII XIII and XVIII,* 09-TC-03. I have personal and first-hand knowledge of the matters set forth herein and could, if called upon, testify competently thereto.

2. Exhibit 1 to this Declaration is a true and correct copy of excerpts of an order of the State Water Resources Control Board, *In the Matter of Review of Order No. R4-2012-0175, NPDES Permit No. CAS004001, Waste Discharge Requirements For Municipal Separate Storm Sewer System (MS4) Discharges Within the Coastal Watersheds of Los Angeles County, Except Those Discharges Originating From the City of Long Beach MS4*, State Board Order WQ 2015-0075 (June 16, 2015).

3. Exhibit 2 to this Declaration is a true and correct copy of a guidance memorandum issued by the United States Environmental Protection Agency ("USEPA") entitled "Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements based on Those WLAs" and dated November 22, 2002.

4. Exhibit 3 to this Declaration is a true and correct copy of a guidance memorandum issued by USEPA entitled "Revisions to the November 22, 2002 Memorandum 'Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs'" and dated November 12, 2010.

5. Exhibit 4 to this Declaration is a true and correct copy of a guidance memorandum issued by USEPA entitled "Revisions to the November 22, 2002 Memorandum 'Establishing Total Maximum Daily Load (TMDL) Waste Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAS'" and dated November 26, 2014.

6. Exhibit 5 to this Declaration is a true and correct copy of an order of the Los Angeles County Superior Court in *State of California Dept. of Finance v. Commission on State Mandates*, Case No. BS130730, Order Granting Petition for Writ of Mandate (Post Remand) and Denying Cross-Petitions as Moot.

7. Exhibit 6 to this Declaration is a true and correct copy of an article in the *Daily Pilot* newspaper dated July 24, 2019, found on the Internet from the website of latimes.com, and titled, "Settlement ends 18-month battle surrounding Orange County homeless lawsuit."

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed November 4, 2022 at Los Angeles, California.

David W. Burhenn

EXHIBIT 1

STATE OF CALIFORNIA

STATE WATER RESOURCES CONTROL BOARD

ORDER WQ 2015-0075

In the Matter of Review of

Order No. R4-2012-0175, NPDES Permit No. CAS004001

WASTE DISCHARGE REQUIREMENTS FOR MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) DISCHARGES WITHIN THE COASTAL WATERSHEDS OF LOS ANGELES COUNTY, EXCEPT THOSE DISCHARGES ORIGINATING FROM THE CITY OF LONG BEACH MS4

Issued by the
California Regional Water Quality Control Board,
Los Angeles Region

SWRCB/OCC FILES A-2236 (a)-(kk)

BY THE BOARD:

In this order, the State Water Resources Control Board (State Water Board) reviews Order No. R4-2012-0175 (NPDES Permit No. CAS004001) adopted by the Los Angeles Regional Water Quality Control Board (Los Angeles Water Board) on November 8, 2012. Order No. R4-2012-0175 regulates discharges of storm water and non-storm water from the municipal separate storm sewer systems (MS4s) located within the coastal watersheds of Los Angeles County, with the exception of the City of Long Beach MS4, and is hereinafter referred to as the "Los Angeles MS4 Order" or the "Order." We received 37 petitions challenging various provisions of the Los Angeles MS4 Order. For the reasons discussed herein, we generally uphold the Los Angeles MS4 Order, but with a number of revisions to the findings and provisions in response to issues raised in the petitions and as a result of our own review of the Order.

I. BACKGROUND

The Los Angeles MS4 Order regulates discharges from the MS4s operated by the Los Angeles County Flood Control District, Los Angeles County, and 84 municipal permittees (Permittees) in a drainage area that encompasses more than 3,000 square miles and multiple watersheds. The Order was issued by the Los Angeles Water Board in

Arcadia, Claremont, Covina, Duarte and Huntington Park, San Marino et al.,[31] and Sierra Madre, incorporated a response to the collateral estoppel argument.

We stated in a July 15, 2013 letter that"[i]nterested persons may not use the [October 15][32] deadline for responses on the remaining petition issues as an opportunity to respond to comments filed on the receiving water limitations approach." We clarified further in a July 29, 2013 letter: "[W]hen submitting subsequent responses to the petitions in accordance with the [October 15] deadline, petitioners and interested persons should not raise new issues related to the specific questions regarding the watershed management program/enhanced watershed management program or respond to any August 15, 2013, submissions; however petitioners and interested persons will not be precluded from responding to specific issues raised in the original petitions on grounds that the issues are related to the receiving water limitations language."

We find that the collateral estoppel responses by the six petitioners are disallowed by the direction we provided in our July 15 and July 29, 2013 letters. However, as will be apparent in our discussion in section II.A, we do not rely on the Environmental Petitioners' collateral estoppel argument in resolving the petitions. Our determination that portions of the October 15, 2013 Responses are disallowed is, therefore, immaterial to the resolution of the issues.[33]

Having resolved the procedural issues, we turn to the merits of the Petitions.

A. Implementation of the Iterative Process as Compliance with Receiving Water Limitations

The Los Angeles MS4 Order includes receiving water limitations provisions that are consistent with our direction in Order WQ 99-05 in Part V.A of the Los Angeles MS4 Order. Part V.A. provides, in part, as follows:

1. Discharges from the MS4 that cause or contribute to the violation of receiving water limitations are prohibited.

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[31] The cities of San Marino, Rancho Palos Verdes, South El Monte, Norwalk, Artesia, Torrance, Beverly Hills, Hidden Hills, Westlake Village, La Mirada, Vernon, Monrovia, Agoura Hills, Commerce, Downey, Inglewood, Culver City, and Redondo Beach submitted a joint October 15, 2013 Response.

[32] The July 15, 2013 letter set a deadline of September 20, 2013, which was subsequently extended to October 15, 2013.

[33] In a November 21, 2013 letter, we indicated that we would consider the Motion to Strike concurrently with drafting of this Order, but that we would not accept any additional submissions in this matter, including any responses to the Motion to Strike. City of San Marino objected to the letter and submitted an opposition to the Motion to Strike. Several petitioners submitted joinders in City of San Marino's motion. For the same reasons articulated above, we are not accepting these submissions; they would not affect our resolution of the issues.

2. Discharges from the MS4 of storm water, or non-storm water, for which a Permittee is responsible [footnote omitted], shall not cause or contribute to a condition of nuisance.

3. The Permittees shall comply with Parts V.A.1 and V.A.2 through timely implementation of control measures and other actions to reduce pollutants in the discharges in accordance with the storm water management program and its components and other requirements of this Order including any modifications. . . .[34]

The petitioners that are permittees (hereinafter referred to as "Permittee Petitioners")[35] argue that the above language either means, or should be read and/or clarified to mean, that good faith engagement in the requirements of Part V.A.3, traditionally referred to as the "iterative process," constitutes compliance with Parts V.A.1. and V.A.2. The position put forth by Permittee Petitioners is one we took up when we initiated a process to re-examine the receiving water limitations and iterative process in MS4 permits statewide with our Receiving Water Limitations Issue Paper and the November 20, 2012 workshop. We summarize the law and policy regarding Permittee Petitioners' position again here and ultimately disagree with Permittee Petitioners that implementation of the iterative process does or should constitute compliance with receiving water limitations.

The Clean Water Act generally requires NPDES permits to include technology-based effluent limitations and any more stringent limitations necessary to meet water quality standards.[36] In the context of NPDES permits for MS4s, however, the Clean Water Act does not explicitly reference the requirement to meet water quality standards. MS4 discharges must meet a technology-based standard of prohibiting non-storm water discharges and reducing pollutants in the discharge to the Maximum Extent Practicable (MEP) in all cases, but requiring strict compliance with water quality standards (e.g., by imposing numeric effluent limitations) is at the discretion of the permitting agency.[37] Specifically the Clean Water Act states as follows:

> Permits for discharges from municipal storm sewers –
>
> . . .
>
> (ii) shall include a requirement to effectively prohibit non-stormwater discharges into the storm sewers; and

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[34] Los Angeles MS4 Order, Part V.A, pp. 38-39.

[35] For ease of reference, where an argument is made by multiple Permittee Petitioners, even if not by all, we attribute that argument to Permittee Petitioners generally, and do not list which of the 37 Permittee Petitioners in fact make the argument. Where only one or two Permittee Petitioners make a particular argument, we have identified the specific Permittee Petitioner(s).

[36] 33 U.S.C. §§ 1311, 1342(a).

[37] 33 U.S.C. § 1342(p)(3)(B); *Defenders of Wildlife v. Browner* (9th Cir. 1999) 191 F.3d 1159.

> (iii) shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as . . . the State determines appropriate for the control of such pollutants.[38]

Thus, a permitting agency imposes requirements related to attainment of water quality standards where it determines that those provisions are "appropriate for the control of [relevant] pollutants" pursuant to the Clean Water Act municipal storm water provisions.

Under the Porter-Cologne Act, waste discharge requirements must implement applicable water quality control plans, which include the beneficial uses to be protected for a given water body and the water quality objectives reasonably required for that protection.[39] In this respect, the Porter-Cologne Act treats MS4 dischargers and other dischargers even-handedly and anticipates that all waste discharge requirements will implement the water quality control plans. However, when implementing requirements under the Porter-Cologne Act that are not compelled by federal law, the State Water Board and regional water boards (collectively, "water boards") have some flexibility to consider other factors, such as economics, when establishing the appropriate requirements.[40] Accordingly, since the State Water Board has discretion under federal law to determine whether to require strict compliance with the water quality standards of the water quality control plans for MS4 discharges, the State Water Board may also utilize the flexibility under the Porter-Cologne Act to decline to require strict compliance with water quality standards for MS4 discharges.

We have previously exercised the discretion we have under federal law in favor of requiring compliance with water quality standards, but have required less than strict compliance. We have directed, in precedential orders, that MS4 permits require discharges to be controlled so as not to cause or contribute to exceedances of water quality standards in receiving waters,[41] but have prescribed an iterative process whereby an exceedance of a water quality standard triggers a process of BMP improvements. That iterative process involves reporting of the violation, submission of a report describing proposed improvements to BMPs

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[38] 33 U.S.C. § 1342(p)(3)(B).

[39] Wat. Code, § 13263. The term "water quality standards" encompasses the beneficial uses of the water body and the water quality objectives (or "water quality criteria" under federal terminology) that must be met in the waters of the United States to protect beneficial uses. Water quality standards also include the federal and state antidegradation policy.

[40] Wat. Code, §§ 13241, 13263; *City of Burbank v. State Water Resources Control Bd.* (2005) 35 Cal.4th 613.

[41] State Water Board Orders WQ 98-01 (*Environmental Health Coalition*), WQ 99-05 (*Environmental Health Coalition*), WQ 2001-15 (*Building Industry Association of San Diego*).

expected to better meet water quality standards, and implementation of these new BMPs.[42] The current language of the existing receiving waters limitations provisions was actually developed by USEPA when it vetoed two regional water board MS4 permits that utilized a prior version of the State Water Board's receiving water limitations provisions.[43] In State Water Board Order WQ 99-05, we directed that all regional boards use USEPA's receiving water limitations provisions.

There has been significant confusion within the regulated MS4 community regarding the relationship between the receiving water limitations and the iterative process, in part because the water boards have commonly directed dischargers to achieve compliance with water quality standards by improving control measures through the iterative process. But the iterative process, as established in our precedential orders and as generally written into MS4 permits adopted by the water boards, does not provide a "safe harbor" to MS4 dischargers. When a discharger is shown to be causing or contributing to an exceedance of water quality standards, that discharger is in violation of the permit's receiving water limitations and potentially subject to enforcement by the water boards or through a citizen suit, regardless of whether or not the discharger is actively engaged in the iterative process.[44]

The position that the receiving water limitations are independent from the provisions that establish the iterative process has been judicially upheld on several occasions. The receiving water limitations provisions of the 2001 Los Angeles MS4 Order specifically have been litigated twice, and in both cases, the courts upheld the provisions and the Los Angeles Water Board's interpretation of the provisions. In a decision resolving a challenge to the 2001 Los Angeles MS4 Order, the Los Angeles County Superior Court stated: "[T]he Regional [Water] Board acted within its authority when it included [water quality standards compliance] in

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[42] State Water Board Order WQ 99-05, pp. 2-3; see also State Water Board Order WQ 2001-15, pp. 7-9. Additionally, consistent with federal law, we found it appropriate to require implementation of BMPs in lieu of numeric water quality-based effluent limitations to meet water quality standards. See State Water Board Orders WQ 91-03 (*Citizens for a Better Environment)*, WQ 91-04 (*Natural Resources Defense Council*), WQ 98-01, WQ 2001-15. This issue is discussed in greater detail in Section II.C. of this order.

[43] See State Water Board Orders WQ 99-05, WQ 2001-15.

[44] Several Permittee Petitioners have argued that the State Water Board's opinion in State Water Board Order WQ 2001-15 must be read to endorse a safe harbor in the iterative process. We disagree. Regardless, the State Water Board's position that the iterative process of the subject permit did not create a "safe harbor" from compliance with receiving water limitations was clearly established in subsequent litigation on that order. (See *Building Industry Ass'n of San Diego County v. State Water Resources Control Bd.* (Super. Ct. 2003, No. GIC780263), affd. *Building Industry Assn. of San Diego County v. State Water Resources Control Bd.* (2004) 124 Cal.App.4th 866.)

the Permit without a 'safe harbor,' whether or not compliance therewith requires efforts that exceed the 'MEP' standard."[45] The lack of a safe harbor in the iterative process of the 2001 Los Angeles MS4 Order was again acknowledged in 2011 and 2013, this time by the Ninth Circuit Court of Appeal. In these instances, the Ninth Circuit was considering a citizen suit brought by the Natural Resources Defense Council against the County of Los Angeles and the Los Angeles County Flood Control District for alleged violations of the receiving water limitations of that order. The Ninth Circuit held that, as the receiving water limitations of the 2001 Los Angeles MS4 Order (and accordingly as the precedential language in State Water Board Order WQ 99-05) was drafted, engagement in the iterative process does not excuse liability for violations of water quality standards.[46] The California Court of Appeal has come to the same conclusion in interpreting similar receiving water limitations provisions in MS4 Orders issued by the San Diego Regional Water Quality Control Board in 2001 and the Santa Ana Regional Water Quality Control Board in 2002.[47]

While we reiterate that the judicial rulings have been consistent with the water boards' intention and position regarding the relationship between the receiving water limitations and the iterative process, we acknowledge that some in the regulated community perceived the 2011 Ninth Circuit opinion in particular as a re-interpretation of that relationship. Our Receiving Water Limitations Issue Paper and subsequent workshop reflected our desire to re-examine the issue in response to concerns expressed by the regulated community in the aftermath of that ruling.

As stated above, both the Clean Water Act and the Porter-Cologne Act afford some discretion to not require strict compliance with water quality standards for MS4 discharges. In each of the discussed court cases above, the court's decision is based on the specific permit language; thus the cases do not address our authority with regard to requiring compliance with water quality standards in an MS4 permit as a threshold matter, and they do not require us to continue to exercise our discretion as we decided in State Water Board Order

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[45] *In re Los Angeles County Municipal Storm Water Permit Litigation* (L.A. Super. Ct., No. BS 080548, Mar. 24, 2005) Statement of Decision from Phase I Trial on Petitions for Writ of Mandate, pp. 4-5, 7. The decision was affirmed on appeal (*County of Los Angeles v. State Water Resources Control Board* (2006) 143 Cal.App.4th 985); however, this particular issue was not discussed in the court of appeal's decision.

[46] *Natural Resources Defense Council v. County of Los Angeles* (9th Cir. 2011) 673 F.3d. 880, rev'd on other grounds sub nom. *Los Angeles County Flood Control Dist. v. Natural Resources Defense Council* (2013) 133 S.Ct. 710, mod. by *Natural Resources Defense Council v. County of Los Angeles* (9th Cir. 2013) 725 F.3d 1194, cert. den. *Los Angeles County Flood Control Dist. v. Natural Resources Defense Council* (2014) 134 S.Ct. 2135.

[47] *Building Industry Assn. of San Diego County, supra*,124 Cal.App.4th 866; *City of Rancho Cucamonga v. Regional Water Quality Control Bd.* (2006) 135 Cal.App.4th 1377.

WQ 99-05. Although it would be inconsistent with USEPA's general practice of requiring compliance with water quality standards over time through an iterative process,[48] we may even have the flexibility to reverse[49] our own precedent regarding receiving water limitations and receiving water limitations provisions and make a policy determination that, going forward, we will either no longer require compliance with water quality standards in MS4 permits, or will deem good faith engagement in the iterative process to constitute such compliance.[50]

However, with this Order, we now decline to do either. As the storm water management programs of municipalities have matured, an increasing body of monitoring data indicates that many water quality standards are in fact not being met by many MS4s. The iterative process has been underutilized and ineffective to date in bringing MS4 discharges into compliance with water quality standards. Compliance with water quality standards is and should remain the ultimate goal of any MS4 permit. We reiterate and confirm our determination that provisions requiring compliance with receiving water limitations are "appropriate for the control of . . . pollutants" addressed in MS4 permits and that therefore, consistent with our authority under the Clean Water Act, we will continue to require compliance with receiving water limitations.[51]

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[48] See, e.g. Modified NPDES Permit No. DC0000022 for the MS4 for the District of Columbia, *supra*, fn. 17.

[49] Of course any change of direction would be subject to ordinary principles of administrative law. (See Code Civ. Proc., § 1094.5, subd. (b).)

[50] As such, it is not necessary to address the collateral estoppel arguments raised by the Environmental Petitioners and opposed by Permittee Petitioners. We agree that it is settled law that we have the discretion to require compliance with water quality standards in an MS4 permit under federal and state law. We also agree that it is settled law that the receiving water limitations provisions currently spelled out in our MS4 permits do not carve out a safe harbor in the iterative process. But the question for us is whether we should continue to exercise our discretion to utilize the same approach to receiving water limitations established under our prior precedent, or proceed in a new direction.

[51] Several Permittee Petitioners argued in comments submitted on the first draft of this order that, because we find that we have some discretion under Clean Water Act section 402(p)(3) to not require compliance with receiving water limitations, the Los Angeles Water Board's action in requiring such compliance -- and our action in affirming it -- is pursuant to state authority. (See, e.g., Cities of Arcadia, Claremont, and Covina, Comment Letter, Jan. 21, 2015.) The Permittee Petitioners argue that the action is therefore subject to evaluation in light of the factors set out in Water Code section 13263 and 13241 pursuant to *City of Burbank, supra,* 35 Cal.4th 613. Under *City of Burbank,* a regional water board must consider the factors specified in section 13241 when issuing waste discharge requirements under section 13263, subdivision (a), but only to the extent those waste discharge requirements exceed the requirements of the federal Clean Water Act. (35 Cal.4th at 627.) Nowhere in our discussion in this section do we mean to disavow either that the Los Angeles Water Board acted under federal authority to impose "such other provisions as . . .determine[d] appropriate for the control of . . . pollutants" in adopting the receiving water limitations provisions of the Los Angeles MS4 Order in the first instance or that we are acting under federal authority in upholding those provisions. (33 U.S.C. § 1342(p)(3)(B)(iii).) The receiving water limitations provisions do not exceed the requirements of federal law. We nevertheless also point out that the Los Angeles Water Board engaged in an analysis of the factors under section 13241 when adopting the Order. (See Los Angeles MS4 Order, Att. F, Fact Sheet, pp. F-139 to F-155.)

EXHIBIT 2

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

NOV 22 2002

OFFICE OF WATER

MEMORANDUM

SUBJECT: Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs

FROM: Robert H. Wayland, III, Director
Office of Wetlands, Oceans and Watersheds

James A. Hanlon, Director
Office of Wastewater Management

TO: Water Division Directors
Regions 1 - 10

This memorandum clarifies existing EPA regulatory requirements for, and provides guidance on, establishing wasteload allocations (WLAs) for storm water discharges in total maximum daily loads (TMDLs) approved or established by EPA. It also addresses the establishment of water quality-based effluent limits (WQBELs) and conditions in National Pollutant Discharge Elimination System (NPDES) permits based on the WLAs for storm water discharges in TMDLs. The key points presented in this memorandum are as follows:

NPDES-regulated storm water discharges must be addressed by the wasteload allocation component of a TMDL. See 40 C.F.R. § 130.2(h).

NPDES-regulated storm water discharges may not be addressed by the load allocation (LA) component of a TMDL. See 40 C.F.R. § 130.2 (g) & (h).

Storm water discharges from sources that are not currently subject to NPDES regulation may be addressed by the load allocation component of a TMDL. See 40 C.F.R. § 130.2(g).

It may be reasonable to express allocations for NPDES-regulated storm water discharges from multiple point sources as a single categorical wasteload allocation when data and information are insufficient to assign each source or outfall individual WLAs. See 40 C.F.R. § 130.2(i). In cases where wasteload allocations

are developed for categories of discharges, these categories should be defined as narrowly as available information allows.

The WLAs and LAs are to be expressed in numeric form in the TMDL. See 40 C.F.R. § 130.2(h) & (i). EPA expects TMDL authorities to make separate allocations to NPDES- regulated storm water discharges (in the form of WLAs) and unregulated storm water (in the form of LAs). EPA recognizes that these allocations might be fairly rudimentary because of data limitations and variability in the system.

NPDES permit conditions must be consistent with the assumptions and requirements of available WLAs. See 40 C.F.R. § 122.44(d)(1)(vii)(B).

WQBELs for NPDES-regulated storm water discharges that implement WLAs in TMDLs may be expressed in the form of best management practices (BMPs) under specified circumstances. See 33 U.S.C. §1342(p)(3)(B)(iii); 40 C.F.R. §122.44(k)(2)&(3). If BMPs alone adequately implement the WLAs, then additional controls are not necessary.

EPA expects that most WQBELs for NPDES-regulated municipal and small construction storm water discharges will be in the form of BMPs, and that numeric limits will be used only in rare instances.

When a non-numeric water quality-based effluent limit is imposed, the permit's administrative record, including the fact sheet when one is required, needs to support that the BMPs are expected to be sufficient to implement the WLA in the TMDL. See 40 C.F.R. §§ 124.8, 124.9 & 124.18.

The NPDES permit must also specify the monitoring necessary to determine compliance with effluent limitations. See 40 C.F.R. § 122.44(i). Where effluent limits are specified as BMPs, the permit should also specify the monitoring necessary to assess if the expected load reductions attributed to BMP implementation are achieved (e.g., BMP performance data).

The permit should also provide a mechanism to make adjustments to the required BMPs as necessary to ensure their adequate performance.

This memorandum is organized as follows:

(I). Regulatory basis for including NPDES-regulated storm water discharges in WLAs in TMDLs;

(II). Options for addressing storm water in TMDLs; and

(III). Determining effluent limits in NPDES permits for storm water discharges consistent with the WLA

(I). Regulatory Basis for Including NPDES-regulated Storm Water Discharges in WLAs in TMDLs

As part of the 1987 amendments to the CWA, Congress added Section 402(p) to the Act to cover discharges composed entirely of storm water. Section 402(p)(2) of the Act requires permit coverage for discharges associated with industrial activity and discharges from large and medium municipal separate storm sewer systems (MS4), i.e., systems serving a population over 250,000 or systems serving a population between 100,000 and 250,000, respectively. These discharges are referred to as Phase I MS4 discharges.

In addition, the Administrator was directed to study and issue regulations that designate additional storm water discharges, other than those regulated under Phase I, to be regulated in order to protect water quality. EPA issued regulations on December 8, 1999 (64 FR 68722), expanding the NPDES storm water program to include discharges from smaller MS4s (including all systems within "urbanized areas" and other systems serving populations less than 100,000) and storm water discharges from construction sites that disturb one to five acres, with opportunities for area-specific exclusions. This program expansion is referred to as Phase II.

Section 402(p) also specifies the levels of control to be incorporated into NPDES storm water permits depending on the source (industrial versus municipal storm water). Permits for storm water discharges associated with industrial activity are to require compliance with all applicable provisions of Sections 301 and 402 of the CWA, i.e., all technology-based and water quality-based requirements. See 33 U.S.C. §1342(p)(3)(A). Permits for discharges from MS4s, however, "shall require controls to reduce the discharge of pollutants to the maximum extent practicable ... and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants." See 33 U.S.C. §1342(p)(3)(B)(iii).

Storm water discharges that are regulated under Phase I or Phase II of the NPDES storm water program are point sources that must be included in the WLA portion of a TMDL. See 40 C.F.R. § 130.2(h). Storm water discharges that are not currently subject to Phase I or Phase II of the NPDES storm water program are not required to obtain NPDES permits. 33 U.S.C. §1342(p)(1) & (p)(6). Therefore, for regulatory purposes, they are analogous to nonpoint sources and may be included in the LA portion of a TMDL. See 40 C.F.R. § 130.2(g).

(II). Options for Addressing Storm Water in TMDLs

Decisions about allocations of pollutant loads within a TMDL are driven by the quantity and quality of existing and readily available water quality data. The amount of storm water data available for a TMDL varies from location to location. Nevertheless, EPA expects TMDL authorities will make separate aggregate allocations to NPDES-regulated storm water discharges

(in the form of WLAs) and unregulated storm water (in the form of LAs). It may be reasonable to quantify the allocations through estimates or extrapolations, based either on knowledge of land use patterns and associated literature values for pollutant loadings or on actual, albeit limited, loading information. EPA recognizes that these allocations might be fairly rudimentary because of data limitations.

EPA also recognizes that the available data and information usually are not detailed enough to determine waste load allocations for NPDES-regulated storm water discharges on an outfall-specific basis. In this situation, EPA recommends expressing the wasteload allocation in the TMDL as either a single number for all NPDES-regulated storm water discharges, or when information allows, as different WLAs for different identifiable categories, e.g., municipal storm water as distinguished from storm water discharges from construction sites or municipal storm water discharges from City A as distinguished from City B. These categories should be defined as narrowly as available information allows (e.g., for municipalities, separate WLAs for each municipality and for industrial sources, separate WLAs for different types of industrial storm water sources or dischargers).

(III). Determining Effluent Limits in NPDES Permits for Storm Water Discharges Consistent with the WLA

Where a TMDL has been approved, NPDES permits must contain effluent limits and conditions consistent with the requirements and assumptions of the wasteload allocations in the TMDL. See 40 CFR § 122.44(d)(1)(vii)(B). Effluent limitations to control the discharge of pollutants generally are expressed in numerical form. However, in light of 33 U.S.C. §1342(p)(3)(B)(iii), EPA recommends that for NPDES-regulated municipal and small construction storm water discharges effluent limits should be expressed as best management practices (BMPs) or other similar requirements, rather than as numeric effluent limits. See *Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water Permits*, 61 FR 43761 (Aug. 26, 1996). The Interim Permitting Approach Policy recognizes the need for an iterative approach to control pollutants in storm water discharges. Specifically, the policy anticipates that a suite of BMPs will be used in the initial rounds of permits and that these BMPs will be tailored in subsequent rounds.

EPA's policy recognizes that because storm water discharges are due to storm events that are highly variable in frequency and duration and are not easily characterized, only in rare cases will it be feasible or appropriate to establish numeric limits for municipal and small construction storm water discharges. The variability in the system and minimal data generally available make it difficult to determine with precision or certainty actual and projected loadings for individual dischargers or groups of dischargers. Therefore, EPA believes that in these situations, permit limits typically can be expressed as BMPs, and that numeric limits will be used only in rare instances.

Under certain circumstances, BMPs are an appropriate form of effluent limits to control pollutants in storm water. See 40 CFR § 122.44(k)(2) & (3). If it is determined that a BMP approach (including an iterative BMP approach) is appropriate to meet the storm water component of the TMDL, EPA recommends that the TMDL reflect this.

EPA expects that the NPDES permitting authority will review the information provided by the TMDL, see 40 C.F.R. § 122.44(d)(1)(vii)(B), and determine whether the effluent limit is appropriately expressed using a BMP approach (including an iterative BMP approach) or a numeric limit. Where BMPs are used, EPA recommends that the permit provide a mechanism to require use of expanded or better-tailored BMPs when monitoring demonstrates they are necessary to implement the WLA and protect water quality.

Where the NPDES permitting authority allows for a choice of BMPs, a discussion of the BMP selection and assumptions needs to be included in the permit's administrative record, including the fact sheet when one is required. 40 C.F.R.§§ 124.8, 124.9 & 124.18. For general permits, this may be included in the storm water pollution prevention plan required by the permit. See 40 C.F.R. § 122.28. Permitting authorities may require the permittee to provide supporting information, such as how the permittee designed its management plan to address the WLA(s). See 40 C.F.R. § 122.28. The NPDES permit must require the monitoring necessary to assure compliance with permit limitations, although the permitting authority has the discretion under EPA's regulations to decide the frequency of such monitoring. See 40 CFR § 122.44(i). EPA recommends that such permits require collecting data on the actual performance of the BMPs. These additional data may provide a basis for revised management measures. The monitoring data are likely to have other uses as well. For example, the monitoring data might indicate if it is necessary to adjust the BMPs. Any monitoring for storm water required as part of the permit should be consistent with the state's overall assessment and monitoring strategy.

The policy outlined in this memorandum affirms the appropriateness of an iterative, adaptive management BMP approach, whereby permits include effluent limits (e.g., a combination of structural and non-structural BMPs) that address storm water discharges, implement mechanisms to evaluate the performance of such controls, and make adjustments (i.e., more stringent controls or specific BMPs) as necessary to protect water quality. This approach is further supported by the recent report from the National Research Council (NRC), *Assessing the TMDL Approach to Water Quality Management* (National Academy Press, 2001). The NRC report recommends an approach that includes "adaptive implementation," i.e., "a cyclical process in which TMDL plans are periodically assessed for their achievement of water quality standards" . . . and adjustments made as necessary. *NRC Report* at ES-5.

This memorandum discusses existing requirements of the Clean Water Act (CWA) and codified in the TMDL and NPDES implementing regulations. Those CWA provisions and regulations contain legally binding requirements. This document describes these requirements; it does not substitute for those provisions or regulations. The recommendations in this memorandum are not binding; indeed, there may be other approaches that would be appropriate

in particular situations. When EPA makes a TMDL or permitting decision, it will make each decision on a case-by-case basis and will be guided by the applicable requirements of the CWA and implementing regulations, taking into account comments and information presented at that time by interested persons regarding the appropriateness of applying these recommendations to the particular situation. EPA may change this guidance in the future.

If you have any questions please feel free to contact us or Linda Boornazian, Director of the Water Permits Division or Charles Sutfin, Director of the Assessment and Watershed Protection Division.

cc:
Water Quality Branch Chiefs
Regions 1 - 10

Permit Branch Chiefs
Regions 1 - 10

EXHIBIT 3

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

NOV 12 2010

OFFICE OF
WATER

MEMORANDUM

SUBJECT: Revisions to the November 22, 2002 Memorandum "Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs"

FROM: James A. Hanlon, Director
Office of Wastewater Management

Denise Keehner, Director
Office of Wetlands, Oceans and Watersheds

TO: Water Management Division Directors
Regions 1 - 10

This memorandum updates aspects of EPA's November 22, 2002 memorandum from Robert H. Wayland, III, Director of the Office of Wetlands, Oceans and Watersheds, and James A. Hanlon, Director of the Office of Wastewater Management, on the subject of "Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs" (hereafter "2002 memorandum").

Background

Section III of the 2002 memorandum "affirm[ed] the appropriateness of an iterative, adaptive management best management practices (BMP) approach" for improving stormwater management over time as permitting agencies, the regulated community, and other involved stakeholders gain more experience and knowledge. Since 2002, States and EPA have obtained considerable experience in developing TMDLs and WLAs that address stormwater sources. The technical capacity to monitor stormwater and its impacts on water quality has increased. In many areas, monitoring of the impacts of stormwater on water quality has become more sophisticated and widespread. Better information on the effectiveness of stormwater controls to reduce pollutant loadings and address water quality impairments is now available. In many parts of the country, permitting agencies have issued several rounds of permits for Phase I municipal separate storm sewer systems (MS4s), Phase II MS4s, and stormwater discharges associated with industrial activity, including stormwater from construction activities. Notwithstanding these developments, stormwater discharges remain a significant cause of water quality

impairment in many places, highlighting a continuing need for more useful WLAs and better NPDES permit provisions to restore impaired waters to their beneficial uses.

With this additional experience in mind, EPA is updating and revising the following four elements of the 2002 memorandum to better reflect current practices and trends in permits and WLAs for stormwater discharges:

- Providing numeric water quality-based effluent limitations in NPDES permits for stormwater discharges;
- Disaggregating stormwater sources in a WLA;
- Using surrogates for pollutant parameters when establishing targets for TMDL loading capacity; and
- Designating additional stormwater sources to regulate and treating load allocations as wasteload allocations for newly regulated stormwater sources.

EPA is currently reviewing other elements of the 2002 memorandum and will consider making appropriate revisions in the future.

Providing Numeric Water Quality-Based Effluent Limitations in NPDES Permits for Stormwater Discharges

In today's memorandum, EPA is revising the 2002 memorandum with respect to water quality-based effluent limitations (WQBELs) in stormwater permits. Since 2002, many NPDES authorities have documented the contributions of stormwater discharges to water quality impairment and have identified the need to include clearer permit requirements in order to address these impairments. Numeric WQBELs in stormwater permits can clarify permit requirements and improve accountability and enforceability. For the purpose of this memorandum, numeric WQBELs use numeric parameters such as pollutant concentrations, pollutant loads, or numeric parameters acting as surrogates for pollutants, such as such as stormwater flow volume or percentage or amount of impervious cover.

The CWA provides that stormwater permits for MS4 discharges shall contain controls to reduce the discharge of pollutants to the "maximum extent practicable" and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants. CWA section 402(p)(3)(B)(iii). Under this provision, the NPDES permitting authority has the discretion to include requirements for reducing pollutants in stormwater discharges as necessary for compliance with water quality standards. *Defenders of Wildlife v. Browner*, 191 F.3d 1159, 1166 (9th Cir. 1999).

Where the NPDES authority determines that MS4 discharges have the reasonable potential to cause or contribute to a water quality standard excursion, EPA recommends that, where feasible, the NPDES permitting authority exercise its discretion to include numeric effluent limitations as necessary to meet water quality standards. The 2002

memorandum stated "EPA expects that most WQBELs for NPDES-regulated municipal and small construction stormwater discharges will be in the form of BMPs, and that numeric limitations will be used only in rare instances." Those expectations have changed as the stormwater permit program has matured. EPA now recognizes that where the NPDES authority determines that MS4 discharges and/or small construction stormwater discharges have the reasonable potential to cause or contribute to water quality standards excursions, permits for MS4s and/or small construction stormwater discharges should contain numeric effluent limitations where feasible to do so. EPA recommends that NPDES permitting authorities use numeric effluent limitations where feasible as these types of effluent limitations create objective and accountable means for controlling stormwater discharges.

The Clean Water Act (CWA) requires that permits for stormwater discharges associated with industrial activity comply with section 301 of the Act, including the requirement under section 301(b)(1)(C) to contain WQBELs for any discharge that the permitting authority determines has the reasonable potential to cause or contribute to a water quality standard excursion. CWA section 402(p)(3)(A), 40 CFR 122.44(d)(1)(iii). When the permitting authority determines, using the procedures specified at 40 CFR 122.44(d)(1)(ii) that the discharge causes or has the reasonable potential to cause or contribute to an in-stream excursion of the water quality standards, the permit must contain effluent limits for that pollutant. EPA recommends that NPDES permitting authorities use numeric effluent limitations where feasible as these types of effluent limitations create objective and accountable means for controlling stormwater discharges.

Where WQBELs in permits for stormwater discharges from MS4s, small construction sites or industrial sites are expressed in the form of BMPs, the permit should contain objective and measurable elements (e.g., schedule for BMP installation or level of BMP performance). The objective and measureable elements should be included in permits as enforceable provisions. Permitting authorities should consider including numeric benchmarks for BMPs and associated monitoring protocols or specific protocols for estimating BMP effectiveness in stormwater permits. These benchmarks could be used as thresholds that would require the permittee to take additional action specified in the permit, such as evaluating the effectiveness of the BMPs, implementing and/or modifying BMPs, or providing additional measures to protect water quality.

If the State or EPA has established a TMDL for an impaired water that includes WLAs for stormwater discharges, permits for either industrial stormwater discharges or MS4 discharges must contain effluent limits and conditions consistent with the requirements and assumptions of the WLAs in the TMDL. See 40 CFR § 122.44(d)(1)(vii)(B). Where the WLA of a TMDL is expressed in terms of a surrogate pollutant parameter, then the corresponding permit can generally use the surrogate pollutant parameter in the WQBEL as well. Where the TMDL includes WLAs for stormwater sources that provide numeric pollutant load or numeric surrogate pollutant parameter objectives, the WLA should, where feasible, be translated into numeric WQBELs in the applicable stormwater permits.

The permitting authority's decision as to how to express the WQBEL(s), either as numeric effluent limitations or BMPs, including BMPs accompanied by numeric benchmarks, should be based on an analysis of the specific facts and circumstances surrounding the permit, and/or the underlying WLA, including the nature of the stormwater discharge, available data, modeling results or other relevant information. As discussed in the 2002 memorandum, the permit's administrative record needs to provide an adequate demonstration that, where a BMP-based approach to permit limitations is selected, the BMPs required by the permit will be sufficient to implement applicable WLAs. Improved knowledge of BMP effectiveness gained since 2002 should be reflected in the demonstration and supporting rationale that implementation of the BMPs will attain water quality standards and WLAs.

EPA's regulations at 40 CFR § 122.47 govern the use of compliance schedules in NPDES permits. Central among the requirements is that the effluent limitation(s) must be met "as soon as possible." 40 CFR 122.47(a)(1). EPA expects the permitting authority to include in the permit record a sound rationale for determining that any compliance schedule meets this requirement. Where a TMDL has been established and there is an accompanying implementation plan that provides a schedule for an MS4 to implement the TMDL, the permitting authority should consider the schedule as it decides whether and how to establish enforceable interim requirements and interim dates in the permit.

Lastly, NPDES permits must specify monitoring requirements necessary to determine compliance with effluent limitations. See CWA section 402(a)(2); 40 C.F.R. 122.44(i). Where WQBELs are expressed as BMPs, the permit must require adequate monitoring to determine if the BMPs are performing as necessary. When developing monitoring requirements, the NPDES authority should consider the variable nature of stormwater as well the availability of reliable and applicable field data describing the treatment efficiencies of the BMPs required and supporting modeling analysis.

Disaggregating Stormwater Sources in a WLA

As stated in the 2002 memorandum, EPA expects TMDL authorities will make separate aggregate allocations to NPDES-regulated storm water discharges (in the form of WLAs) and unregulated storm water (in the form of LAs). EPA also recognized that the available data and information usually are not detailed enough to determine waste load allocations for NPDES-regulated storm water discharges on an outfall-specific basis.

EPA still recognizes that decisions about allocations of pollutant loads within a TMDL are driven by quantity and quality of existing and readily available water quality data. However, today, TMDL writers may have better data or better access to data and, over time, may have gained more experience since 2002 in developing TMDLs and WLAs in a less aggregated manner. Moreover, since 2002, EPA has noted the difficulty of establishing clear, effective, and enforceable NPDES permit limitations for sources covered by WLAs that are expressed as single categorical or aggregated wasteload allocations.

Accordingly, for all these reasons, EPA recommends that WLAs for NPDES-regulated stormwater discharges should be disaggregated into specific categories (e.g., separate WLAs for MS4 and industrial stormwater discharges) to the extent feasible based on available data and/or modeling projections. In addition, these disaggregated WLAs should be defined as narrowly as available information allows (e.g., for MS4s, separate WLAs for each one; and, for industrial sources, separate WLAs for different sources or types of industrial sources or discharges.)

Where appropriate, EPA encourages permit writers to assign specific shares of the wasteload allocation to specific permittees during the permitting process.

Using Surrogate for Pollutant Parameters When Establishing Targets for TMDL Loading Capacity

Many waterbodies affected by stormwater discharges are listed as impaired under Section 303(d) due to biological degradation or habitat alteration, rather than for specific pollutants (e.g., metals, pathogens, sediment). Impairment can be due to pollutants where hydrologic changes such as quantity of flow and variation in flow regimes are important factors in their transport. Since the stormwater-source impairment is usually the result of the cumulative impact of multiple pollutants and physical effects, it may be difficult to identify a specific pollutant (or pollutants) causing the impairment. Using a surrogate parameter in developing wasteload allocations for waters impaired by stormwater sources may, at times, be the appropriate approach for restoring the waterbodies.

In the 2009 report *Urban Stormwater Management in the United States,* the National Research Council suggests: "A more straightforward way to regulate stormwater contributions to waterbody impairment would be to use flow or a surrogate, like impervious cover, as a measure of stormwater loading . . . Efforts to reduce stormwater flow will automatically achieve reductions in pollutant loading. Moreover, flow is itself responsible for additional erosion and sedimentation that adversely impacts surface water quality."

Therefore, when developing TMDLs for receiving waters where stormwater sources are the primary source of impairment, it may be suitable to establish a numeric target for a surrogate pollutant parameter, such as stormwater flow volume or impervious cover, that would be expected to provide attainment of water quality standards. This is consistent with the TMDL regulations that specify that TMDLs can be expressed in terms of mass per time, toxicity or other appropriate measure (40 C.F.R. §130.2(i)).

Where a surrogate parameter is used, the TMDL document must demonstrate the linkage between the surrogate parameter and the documented impairment (e.g., biological degradation). In addition, the TMDL should provide supporting documentation to indicate that the surrogate pollutant parameter appropriately represents stormwater pollutant loadings. Monitoring is an essential undertaking to ensure that compliance with the effluent limitations occurs.

Recent examples of TMDLs using flow or impervious cover as surrogates for pollutants in setting TMDL loading targets include: the Eagleville Brook (CT) TMDL and the Barberry Creek (ME) TMDL which used impervious cover as a surrogate; and, the Potash Brook (VT) TMDL which used stormwater flow volume as a surrogate.

Designating Additional Stormwater Sources to Regulate and Treating Load Allocations as Wasteload Allocations for Newly Regulated Stormwater Sources

The 2002 memorandum states that "stormwater discharges from sources that are not currently subject to NPDES regulation may be addressed by the load allocation component of a TMDL." Section 402(p)(2) of the Clean Water Act (CWA) requires industrial stormwater sources, certain municipal separate storm sewer systems, and other designated sources to be subject to NPDES permits. Section 402(p)(6) provides EPA with authority to identify additional stormwater discharges as needing a permit.

In addition to the stormwater discharges specifically identified as needing an NPDES permit, the CWA and the NPDES regulations allow for EPA and NPDES authorized States to designate, additional stormwater discharges for regulation. See 40 CFR 122.26 (a)(9)(i)(C), (a)(9)(i)(D), (b)(4)(iii), (b)(7)(iii), (b)(15)(ii) and 122.32(a)(2). Since 2002, EPA has become concerned that NPDES authorities have generally not adequately considered exercising these authorities to designate for NPDES permitting stormwater discharges that are currently not required to obtain permit coverage but that are significant enough to be identified in the load allocation component of a TMDL. Accordingly, EPA encourages permitting authorities to consider designation of stormwater sources in situations where coverage under NPDES permits would afford a more effective mechanism to reduce pollutants in stormwater discharges than available nonpoint source control methods.

In situations where a stormwater source addressed in a TMDL's load allocation is not currently regulated by an NPDES permit but may be required to obtain an NPDES permit in the future, the TMDL writer should consider including language in the TMDL explaining that the allocation for the stormwater source is expressed in the TMDL as a "load allocation" contingent on the source remaining unpermitted, but that the "load allocation" would later be deemed a "wasteload allocation" if the stormwater discharge from the source were required to obtain NPDES permit coverage. Such language, while not legally required, would help ensure that the allocation is properly characterized by the permit writer should the source's regulatory status change. This will help ensure that effluent limitations in a NPDES permit applicable to the newly permitted source are consistent with the requirements and assumptions of the TMDL's allocation to that source.

Such recharacterization of a load allocation as a wasteload allocation would not automatically require resubmission of the TMDL to EPA for approval. However, if the TMDL's allocation for the newly permitted source had been part of a single aggregated or gross load allocation for all unregulated stormwater sources, it may be appropriate for the NPDES permit authority to determine a wasteload allocation and corresponding

effluent limitation specific to the newly permitted stormwater source. Any additional analysis used to refine the allocation should be included in the administrative record for the permit. In such cases, the record should describe the basis for (1) recharacterizing the load allocation as a wasteload allocation for this source and (2) determining that the permit's effluent limitations are consistent with the assumptions and requirements of this recharacterized wasteload allocation. For purposes of this discussion, it is assumed that the permit writer's additional analysis or recharacterization of the load allocation as a wasteload allocation does not change the TMDL's overall loading cap. Any change in a TMDL loading cap would have to be resubmitted for EPA approval.

If you have any questions please feel free to contact us or Linda Boornazian, Director of the Water Permits Division or Benita Best-Wong, Director of the Assessment and Watershed Protection Division.

cc: Association of State and Interstate Water Pollution Control Administrators
Water Quality Branch Chiefs, Regions 1 – 10
Permits Branch Chiefs, Regions 1 – 10

EXHIBIT 4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

NOV 26 2014

OFFICE OF WATER

MEMORANDUM

SUBJECT: Revisions to the November 22, 2002 Memorandum "Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs"

FROM: Andrew D. Sawyers, Director
Office of Wastewater Management

Benita Best-Wong, Director
Office of Wetlands, Oceans and Watersheds

TO: Water Division Directors
Regions 1 - 10

This memorandum updates aspects of EPA's November 22, 2002 memorandum from Robert H. Wayland, III, Director of the Office of Wetlands, Oceans and Watersheds, and James A. Hanlon, Director of the Office of Wastewater Management, on the subject of "Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs" (hereafter "2002 memorandum"). Today's memorandum replaces the November 12, 2010, memorandum on the same subject; the Water Division Directors should no longer refer to that memorandum for guidance.

This memorandum is guidance. It is not a regulation and does not impose legally binding requirements on EPA or States. EPA and state regulatory authorities should continue to make permitting and TMDL decisions on a case-by-case basis considering the particular facts and circumstances and consistent with applicable statutes, regulations, and case law. The recommendations in this guidance may not be applicable to a particular situation. EPA may change or revoke this guidance at any time.

Background

Stormwater discharges are a significant contributor to water quality impairment in this country, and the challenges from these discharges are growing as more land is developed and more impervious surface is created. Stormwater discharges cause beach closures and contaminate shellfish and surface drinking water supplies. The increased volume and velocity of stormwater discharges causes streambank erosion, flooding, sewer overflows, and basement backups. The decreased natural infiltration of rainwater reduces groundwater recharge, depleting

our underground sources of drinking water.[1] There are stormwater management solutions, such as green infrastructure, that can protect our waterbodies from stormwater discharges and, at the same time, offer many other benefits to communities.

Section III of the 2002 memorandum recommended that for NPDES-regulated municipal and small construction stormwater discharges, effluent limits be expressed as best management practices (BMPs) or other similar requirements, rather than as numeric effluent limits. The 2002 memorandum went on to provide guidance on using "an iterative, adaptive management BMP approach" for improving stormwater management over time as permitting agencies, the regulated community, and other involved stakeholders gain more experience and knowledge. EPA continues to support use of an iterative approach, but with greater emphasis on clear, specific, and measurable permit requirements and, where feasible, numeric NPDES permit provisions, as discussed below.

Since 2002, States and EPA have obtained considerable experience in developing TMDLs and WLAs that address stormwater sources (see Box 1 in the attachment for specific examples). Monitoring of the impacts of stormwater discharges on water quality has become more sophisticated and widespread.[2] The experience gained during this time has provided better information on the effectiveness of stormwater controls to reduce pollutant loadings and address water quality impairments. In many parts of the country, permitting agencies have issued several rounds of stormwater permits. Notwithstanding these developments, stormwater discharges remain a significant cause of water quality impairment in many places, highlighting a continuing need for more meaningful WLAs and more clear, specific, and measurable NPDES permit provisions to help restore impaired waters to their beneficial uses.

With this additional experience in mind, on November 12, 2010, EPA issued a memorandum updating and revising elements of the 2002 memorandum to better reflect current practices and trends in permits and WLAs for stormwater discharges. On March 17, 2011, EPA sought public comment on the November 2010 memorandum and, earlier this year, completed a nationwide review of current practices used in MS4 permits[3] and industrial and construction stormwater discharge permits. As a result of comments received and informed by the reviews of EPA and state-issued stormwater permits, EPA is in this memorandum replacing the

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[1] See generally Urban Stormwater Management in the United States (National Research Council, 2009), particularly the discussion in Chapter 3, *Hydrologic, Geomorphic, and Biological Effects of Urbanization on Watersheds.*

[2] Stormwater discharge monitoring programs have expanded the types pollutants and other indices (e.g., biologic integrity) being evaluated. This information is being used to help target priority areas for cleanup and to assess the effectiveness of stormwater BMPs. There are a number of noteworthy monitoring programs that are ongoing, including for example those being carried out by Duluth, MN, Capitol Region Watershed District, MN, Honolulu, HI, Baltimore or Montgomery County, MD, Puget Sound, WA, Los Angeles County, CA, and the Alabama Dept. of Transportation, among many others. See also Section 4.2 (Monitoring/Modeling Requirements) of EPA's *Municipal Separate Storm Sewer System Permits: Post-Construction Performance Standards & Water Quality-Based Requirements – A Compendium of Permitting Approaches* (EPA, June 2014), or "MS4 Compendium" available at http://water.epa.gov/polwaste/npdes/stormwater/upload/sw_ms4_compendium.pdf, for other examples of note.

[3] See EPA's MS4 Permit Compendium, referenced in the above footnote.

November 2010 memorandum, updating aspects of the 2002 memorandum and providing additional information in the following areas:

- Including clear, specific, and measurable permit requirements and, where feasible, numeric effluent limitations in NPDES permits for stormwater discharges;
- Disaggregating stormwater sources in a WLA; and
- Designating additional stormwater sources to regulate and developing permit limits for such sources.

Including Clear, Specific, and Measurable Permit Requirements and, Where Feasible, Numeric Effluent Limitations in NPDES Permits for Stormwater Discharges

At the outset of both the Phase I and Phase II stormwater permit programs, EPA provided guidance on the type of water quality-based effluent limits (WQBELs) that were considered most appropriate for stormwater permits. See Interim Permitting Policy for Water Quality-Based Limitations in Storm Water Permits [61 FR 43761 (August 26, 1996) and 61 FR 57425 (November 6, 1996)] and the Phase II rulemaking preamble 64 FR 68753 (December 8, 1999). Under the approach discussed in these documents, EPA envisioned that in the first two to three rounds of permit issuance, stormwater permits typically would require implementation of increasingly more effective best management practices (BMPs). In subsequent stormwater permit terms, if the BMPs used during prior years were shown to be inadequate to meet the requirements of the Clean Water Act (CWA), including attainment of applicable water quality standards, the permit would need to contain more specific conditions or limitations.

There are many ways to include more effective WQBELs in permits. In the spring of 2014, EPA published the results of a nationwide review of current practices used in MS4 permits in *Municipal Separate Storm Sewer Systems Permits: Post-Construction Performance Standards & Water Quality-Based Requirements – A Compendium of Permitting Approaches* (June 2014). This MS4 Compendium demonstrates how NPDES authorities have been able to effectively establish permit requirements that are more specifically tied to a measurable water quality target, and includes examples of permit requirements expressed in both numeric and non-numeric form. These approaches, while appropriately permit-specific, each share the attribute of being expressed in a clear, specific, and measurable way. For example, EPA found a number of permits that employ numeric, retention-based performance standards for post-construction discharges, as well as instances where permits have effectively incorporated numeric effluent limits or other quantifiable measures to address water quality impairment (see the attachment to this memorandum).

EPA has also found examples where the applicable WLAs have been translated into BMPs, which are required to be implemented during the permit term to reflect reasonable further progress towards meeting the applicable water quality standard (WQS). Incorporating greater specificity and clarity echoes the approach first advanced by EPA in the 1996 Interim Permitting Policy, which anticipated that where necessary to address water quality concerns, permits would be modified in subsequent terms to include "more specific conditions or limitations [which] may include an integrated suite of BMPs, performance objectives, narrative standards, monitoring triggers, numeric WQBELs, action levels, etc."

EPA also recently completed a review of state-issued NPDES industrial and construction permits, which also revealed a number of examples where WQBELs are expressed using clear, specific, and measurable terms. Permits are exhibiting a number of different approaches, not unlike the types of provisions shown in the MS4 Compendium. For example, some permits are requiring as an effluent limitation compliance with a numeric or narrative WQS, while others require the implementation of specific BMPs that reduce the discharge of the pollutant of concern as necessary to meet applicable WQS or to implement a WLA and/or are requiring their permittees to conduct stormwater monitoring to ensure the effectiveness of those BMPs. EPA intends to publish a compendium of permitting approaches in state-issued industrial and construction stormwater permits in early 2015.

Permits for MS4 Discharges

The CWA provides that stormwater permits for MS4 discharges "shall require controls to reduce the discharge of pollutants to the maximum extent practicable ... and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants." CWA section 402(p)(3)(B)(iii). Under this provision, the NPDES permitting authority has the discretion to include requirements for reducing pollutants in stormwater discharges as necessary for compliance with water quality standards. *Defenders of Wildlife v. Browner*, 191 F.3d 1159, 1166 (9th Cir. 1999).

The 2002 memorandum stated "EPA expects that most WQBELs for NPDES-regulated municipal and small construction stormwater discharges will be in the form of BMPs, and that numeric limitations will be used only in rare instances." As demonstrated in the MS4 Compendium, NPDES permitting authorities are using various forms of clear, specific, and measurable requirements, and, where feasible, numeric effluent limitations in order to establish a more objective and accountable means for reducing pollutant discharges that contribute to water quality problems.[4] Where the NPDES authority determines that MS4 discharges have the reasonable potential to cause or contribute to a water quality standard excursion, EPA recommends that the NPDES permitting authority exercise its discretion to include clear, specific, and measurable permit requirements and, where feasible, numeric effluent limitations[5] as necessary to meet water quality standards.

NPDES authorities have significant flexibility in how they express WQBELs in MS4 permits (see examples in Box 1 of the attachment). WQBELs in MS4 permits can be expressed as system-wide requirements rather than as individual discharge location requirements such as

[4] The MS4 Compendium presents examples of different permitting approaches that EPA has found during a nationwide review of state MS4 permits. Examples of different WQBEL approaches in the MS4 Compendium include permits that have (1) a list of applicable TMDLs, WLAs, and the affected MS4s; (2) numeric limits and other quantifiable approaches for specific pollutants of concern; (3) requirements to implement specific stormwater controls or management measures to meet the applicable WLA; (4) permitting authority review and approval of TMDL plans; (5) specific impaired waters monitoring and modeling requirements; and (6) requirements for discharges to impaired waters prior to TMDL approval.

[5] For the purpose of this memorandum, and in the context of NPDES permits for stormwater discharges, "numeric" effluent limitations refer to limitations with a quantifiable or measurable parameter related to a pollutant (or pollutants). Numeric WQBELs may include other types of numeric limits in addition to end-of-pipe limits. Numeric WQBELs may include, among others, limits on pollutant discharges by specifying parameters such as on-site stormwater retention volume or percentage or amount of effective impervious cover, as well as the more traditional pollutant concentration limits and pollutant loads in the discharge.

effluent limitations on discharges from individual outfalls. Moreover, the inclusion of numeric limitations in an MS4 permit does not, by itself, mandate the type of controls that a permittee will use to meet the limitation.

EPA recommends that NPDES permitting authorities establish clear, specific, and measurable permit requirements to implement the minimum control measures in MS4 permits. With respect to requirements for post-construction stormwater management, consistent with guidance in the 1999 Phase II Rule, EPA recommends, where feasible and appropriate, numeric requirements that attempt to maintain pre-development runoff conditions (40 CFR § 122.34(b)(5)) be incorporated into MS4 permits. EPA's MS4 Compendium features examples from 17 states and the District of Columbia that have already implemented retention performance standards for newly developed and redeveloped sites. See Box 2 of the attachment for examples.

Permits for Industrial Stormwater Discharges

The CWA requires that permits for stormwater discharges associated with industrial activity comply with section 301 of the Act, including the requirement under section 301(b)(1)(C) to contain WQBELs to achieve water quality standards for any discharge that the permitting authority determines has the reasonable potential to cause or contribute to a water quality standard excursion. CWA section 402(p)(3)(A), 40 CFR § 122.44(d)(1)(iii). When the permitting authority determines, using the procedures specified at 40 CFR § 122.44(d)(1)(ii), that the discharge causes or has the reasonable potential to cause or contribute to an in-stream excursion of the water quality standards, the permit must contain WQBELs as stringent as necessary to meet any applicable water quality standard for that pollutant. EPA recommends that NPDES permitting authorities use the experience gained in developing WQBELs to design effective permit conditions to create objective and accountable means for controlling stormwater discharges. See box 3 in the attachment for examples.

Permits should contain clear, specific, and measurable elements associated with BMP implementation (*e.g.*, schedule for BMP installation, frequency of a practice, or level of BMP performance), as appropriate, and should be supported by documentation that implementation of selected BMPs will result in achievement of water quality standards. Permitting authorities should also consider including numeric benchmarks for BMPs and associated monitoring protocols for estimating BMP effectiveness in stormwater permits. Benchmarks can support an adaptive approach to meeting applicable water quality standards. While exceeding the benchmark is not generally a permit violation, exceeding the benchmark would typically require the permittee to take additional action, such as evaluating the effectiveness of the BMPs, implementing and/or modifying BMPs, or providing additional measures to protect water quality.[6] Permitting authorities should consider structuring the permit to clarify that failure to implement required corrective action, including a corrective action for exceeding a benchmark, is a permit violation. EPA notes that, as many stormwater discharges are authorized under a general

[6] For example, Part 6.2.1 of EPA's 2008 MSGP provides: "This permit stipulates pollutant benchmark concentrations that may be applicable to your discharge. The benchmark concentrations are not effluent limitations; a benchmark exceedance, therefore, is not a permit violation. Benchmark monitoring data are primarily for your use to determine the overall effectiveness of your control measures and to assist you in knowing when additional corrective action(s) may be necessary to comply with the effluent limitations ..."

permit, NPDES authorities may find it more appropriate where resources allow to issue individual permits that are better tailored to meeting water quality standards for large industrial stormwater discharges with more complex stormwater management features, such as multiple outfalls and multiple entities responsible for permit compliance.

All Permitted Stormwater Discharges

As stated in the 2002 memorandum, where a State or EPA has established a TMDL, NPDES permits must contain effluent limits and conditions consistent with the assumptions and requirements of the WLAs in the TMDL. See 40 CFR § 122.44(d)(1)(vii)(B). Where the TMDL includes WLAs for stormwater sources that provide numeric pollutant loads, the WLA should, where feasible, be translated into effective, measurable WQBELs that will achieve this objective. This could take the form of a numeric limit, or of a measurable, objective BMP-based limit that is projected to achieve the WLA. For MS4 discharges, CWA section 402(p)(3)(B)(iii) provides flexibility for NPDES authorities to set appropriate deadlines for meeting WQBELs consistent with the requirements for compliance schedules in NPDES permits set forth in 40 CFR § 122.47.

The permitting authority's decision as to how to express the WQBEL(s), either as numeric effluent limitations or as BMPs, with clear, specific, and measurable elements, should be based on an analysis of the specific facts and circumstances surrounding the permit, and/or the underlying WLA, including the nature of the stormwater discharge, available data, modeling results, and other relevant information. As discussed in the 2002 memorandum, the permit's administrative record needs to provide an adequate demonstration that, where a BMP-based approach to permit limitations is selected, the BMPs required by the permit will be sufficient to implement applicable WLAs. Permits should also include milestones or other mechanisms where needed to ensure that the progress of implementing BMPs can be tracked. Improved knowledge of BMP effectiveness gained since 2002[7] should be reflected in the demonstration and supporting rationale that implementation of the BMPs will attain water quality standards and be consistent with WLAs.

EPA's regulations at 40 CFR § 122.47 govern the use of compliance schedules in NPDES permits. Central among the requirements is that the effluent limitation(s) must be met "as soon as possible." 40 CFR § 122.47(a)(1). As previously discussed, by providing discretion to include "such other provisions" as deemed appropriate, CWA section 402(p)(3)(B)(iii) provides flexibility for NPDES authorities to set appropriate deadlines towards meeting WQBELs in MS4 permits consistent with the requirements for compliance schedules in NPDES permits set forth in 40 CFR § 122.47. See *Defenders of Wildlife v Browner*, 191 F.3d at 1166. EPA expects the permitting authority to document in the permit record the basis for determining that the compliance schedule is "appropriate" and consistent with the CWA and 40 CFR § 122.47. Where a TMDL has been established and there is an accompanying implementation plan that provides a schedule for an MS4 to implement the TMDL, or where a comprehensive, integrated plan addressing a municipal government's wastewater and stormwater obligations under the NPDES program has been developed, the permitting authority should consider such

[7] See compilation of current BMP databases and summary reports available at http://water.epa.gov/infrastructure/greeninfrastructure/gi_performance.cfm, which has compiled current BMP databases and summary reports.

schedules as it decides whether and how to establish enforceable interim requirements and interim dates in the permit.

EPA notes that many permitted stormwater discharges are covered by general permits. Permitting authorities should consider and build into general permits requirements to ensure that permittees take actions necessary to meet the WLAs in approved TMDLs and address impaired waters. A general permit can, for example, identify permittees subject to applicable TMDLs in an appendix, and prescribe the activities that are required to meet an applicable WLA.

Lastly, NPDES permits must specify monitoring requirements necessary to determine compliance with effluent limitations. See CWA section 402(a)(2); 40 CFR 122.44(i). The permit could specify actions that the permittee must take if the BMPs are not performing properly or meeting expected load reductions. When developing monitoring requirements, the NPDES authority should consider the variable nature of stormwater as well as the availability of reliable and applicable field data describing the treatment efficiencies of the BMPs required and supporting modeling analysis.

Disaggregating Stormwater Sources in a WLA

In the 2002 memorandum, EPA said it "may be reasonable to express allocations for NPDES-regulated stormwater discharges from multiple point sources as a single categorical wasteload allocation when data and information are insufficient to assign each source or outfall individual WLAs." EPA also said that, "[i]n cases where wasteload allocations are developed for categories of discharges, these categories should be defined as narrowly as available information allows." Furthermore, EPA said it "recognizes that the available data and information usually are not detailed enough to determine waste load allocations for NPDES-regulated stormwater discharges on an outfall-specific basis."

EPA still recognizes that "[d]ecisions about allocations of pollutant loads within a TMDL are driven by the quantity and quality of existing and readily available water quality data," but has noted the difficulty of establishing clear, specific, and measurable NPDES permit limitations for sources covered by WLAs that are expressed as single categorical or aggregated wasteload allocations. Today, TMDL writers may have more information—such as more ambient monitoring data, better spatial and temporal representation of stormwater sources, and/or more permit-generated data—than they did in 2002 to develop more disaggregated TMDL WLAs.

Accordingly, for all these reasons, EPA is again recommending that, "when information allows," WLAs for NPDES-regulated stormwater discharges be expressed "as different WLAs for different identifiable categories" (*e.g.*, separate WLAs for MS4 and industrial stormwater discharges). In addition, as EPA said in 2002, "[t]hese categories should be defined as narrowly as available information allows (*e.g.*, for municipalities, separate WLAs for each municipality and for industrial sources, separate WLAs for different types of industrial stormwater sources or dischargers)." EPA does not expect states to assign WLAs to individual MS4 outfalls; however, some states may choose to do so to support their implementation efforts. These recommendations are consistent with the decision in *Anacostia Riverkeeper, Inc. v. Jackson*, 2011 U.S. Dist. Lexis 80316 (July 25, 2011).

In general, states are encouraged to disaggregate the WLA when circumstances allow to facilitate implementation. TMDL writers may want to consult with permit writers and local authorities to collect additional information such as sewer locations, MS4 jurisdictional boundaries, land use and growth projections, and locations of stormwater controls and infrastructure, to facilitate disaggregation. TMDLs have used different approaches to disaggregate stormwater to facilitate MS4 permit development that is consistent with the assumptions and requirements of the WLA. For example, some TMDLs have used a geographic approach and developed individual WLAs by subwatershed[8] or MS4 boundary (*i.e.*, the WLA is subdivided by the relative estimated load contribution to the subwatershed or the area served by the MS4). TMDLs have also assigned percent reductions[9] of the loading based on the estimated wasteload contribution from each MS4 permit holder. Where appropriate, EPA encourages permit writers to identify specific shares of an applicable wasteload allocation for specific permittees during the permitting process, as permit writers may have more detailed information than TMDL writers to effectively identify reductions for specific sources.

Designating Additional Stormwater Sources to Regulate and Developing Permit Limits for Such Sources

The 2002 memorandum states that "stormwater discharges from sources that are not currently subject to NPDES regulation may be addressed by the load allocation component of a TMDL." Section 402(p)(2) of the Clean Water Act (CWA) requires industrial stormwater sources, certain municipal separate storm sewer systems, and other designated sources to be subject to NPDES permits. Section 402(p)(6) provides EPA with authority to identify additional stormwater discharges as needing a permit.

In addition to the stormwater discharges specifically identified as needing an NPDES permit, the CWA and the NPDES regulations allow for EPA and NPDES authorized States to designate additional stormwater discharges for regulation. See:
40 CFR §§122.26 (a)(9)(i)(C), (a)(9)(i)(D), (b)(4)(iii), (b)(7)(iii), (b)(15)(ii) and 122.32(a)(2). Accordingly, EPA encourages permitting authorities to consider designation of stormwater sources in situations where coverage under NPDES permits would, in the reasonable judgment of the permitting authority and, considering the facts and circumstances in the waterbody, provide the most appropriate mechanism for implementing the pollution controls needed within a watershed to attain and maintain applicable water quality standards.

If a TMDL had previously included a newly permitted source as part of a single aggregated or gross load allocation for all unregulated stormwater sources, or all unregulated sources in a specific category, the NPDES permit authority could identify an appropriate allocation share and include a corresponding limitation specific to the newly permitted stormwater source. EPA recommends that any additional analysis used to identify that share and develop the corresponding limit be included in the administrative record for the permit. The

[8] Wissahickon Creek Siltation TMDL (Pennsylvania) www.epa.gov/reg3wapd/tmdl/pa_tmdl/wissahickon/index.htm.
[9] Liberty Bay Watershed Fecal Coliform Bacteria TMDL (Washington).
https://fortress.wa.gov/ecy/publications/SummaryPages/1310014.html and Upper Minnehaha Creek Watershed Nutrients and Bacteria TMDL (Minnesota) http://www.pca.state.mn.us/index.php/view-document.html?gid=20792

permit writer's additional analysis would not change the TMDL, including its overall loading cap.

In situations where a stormwater source addressed in a TMDL's load allocation is not currently regulated by an NPDES permit but may be required to obtain an NPDES permit in the future, the TMDL writer should consider including language in the TMDL explaining that the allocation for the stormwater source is expressed in the TMDL as a "load allocation" contingent on the source remaining unpermitted, but that the "load allocation" would later be deemed a "wasteload allocation" if the stormwater discharge from the source were required to obtain NPDES permit coverage. Such language would help ensure that the allocation is properly characterized by the permit writer should the source's regulatory status change. This will help the permit writer develop limitations for the NPDES permit applicable to the newly permitted source that are consistent with the assumptions and requirements of the TMDL's allocation to that source.

If you have any questions please feel free to contact us or Deborah Nagle, Director of the Water Permits Division, or Tom Wall, Director of the Assessment and Watershed Protection Division.

cc: Association of Clean Water Administrators
TMDL Program Branch Chiefs, Regions 1 – 10
NPDES Permits Branch Chiefs, Regions 1 – 10

Attachment: MS4 and Industrial Stormwater Permit Examples

ATTACHMENT: MS4 and Industrial Stormwater Permit Examples

BOX 1. Examples of WQBELs in MS4 Permits:

1. Numeric expression of the WQBEL: The MS4 Permit includes a specific, quantifiable performance requirement that must be achieved within a set timeframe. For example:
   - Reduce fine sediment particles, total phosphorus, and total nitrogen loads by 10 percent, 7 percent, and 8 percent, respectively, by September 30, 2016 (2011 Lake Tahoe, CA MS4 permit)
   - Restore within the 5-year permit term 20 percent of the previously developed impervious land (2014 Prince George's County, MD MS4 permit)
   - Achieve a minimum net annual planting rate of 4,150 planting annually within the MS4 area, with the objective of an MS4-wide urban tree canopy of 40 percent by 2035 (2011 Washington, DC MS4 permit)
   - Discharges from the MS4 must not cause or contribute to exceedances of receiving water limits for Diazinon of 0.08µg/L for acute exposure (1 hr averaging period) or 0.05µg/L for chronic exposure (4-day averaging period), OR must not exceed Diazinon discharge limits of 0.072 µg/L for acute exposure or 0.045µg/L for chronic exposure (2013 San Diego, CA Regional MS4 permit)

2. Non-numeric expressions of the WQBEL: The MS4 Permit establishes individualized, watershed-based requirements that require each affected MS4 to implement specific BMPs within the permit term, which will ensure reasonable further progress towards meeting applicable water quality standards.
   - To implement the corrective action recommendations of the Issaquah Creek Basin Water Cleanup Plan for Fecal Coliform Bacteria (part of the approved Fecal Coliform Bacteria TMDL for the Issaquah Creek Basin), King County is required during the permit term to install and maintain animal waste education and/or collection stations at municipal parks and other permittee owned and operated lands reasonably expected to have substantial domestic animal use and the potential for stormwater pollution. The County is also required to complete IDDE screening for bacteria sources in 50 percent of the MS4 subbasins, including rural MS4 subbasins, by February 2, 2017 and implement the activities identified in the Phase I permit for responding to any illicit discharges found (2013 Western Washington Small MS4 General Permit)
   - For discharges to Segment 14 of the Upper South Platte River Basin associated with WLAs from the approved *E. coli* TMDL, the MS4 must identify outfalls with dry weather flows; monitor priority outfalls for flow rates and *E. coli* densities; implement a system maintenance program for listed priority basins (which includes storm sewer cleaning and sanitary sewer investigations); install markers on at least 90% of storm drain inlets in areas with public access; and conduct a public outreach program focused on sources that contribute *E. coli* loads to the MS4. By November 30, 2018, dry weather discharges from MS4 outfalls of concern must not contribute to an exceedance of the *E. coli* standard (126 cfu per 100 ml for a geometric mean of all samples collected at a specific outfall in a 30-day period) (2009 Denver, CO MS4 Permit)

3. Hybrid approach with both numeric and non-numeric expressions of the WQBEL:
   - Discharges of trash from the MS4 to the LA River must be reduced to zero by Sept. 2016. Permittees also have the option of complying via the installation of defined "full capture systems" to prevent trash from entering the MS4 (2012 Los Angeles County, CA MS4 Permit).
   - To attain the shared, load allocation of 27,000 metric tons/year of sediment in the Napa River sediment TMDL, municipalities shall determine opportunities to retrofit and/or reconstruction of road crossings to minimize road-related sediment delivery ($\leq$ 500 cubic yards/mile per 20-year period) to stream channels (2013 CA Small MS4 General Permit).

Box 2. Examples of Retention Post Construction Standards for New and Redevelopment in MS4 Permits

- 2009 WV small MS4 permit: Keep and manage on site the first one inch of rainfall from a 24-hour storm preceded by 48 hours of no measurable precipitation.
- 2011 DC Phase I MS4 permit: Achieve on-site retention of 1.2" of stormwater from a 24-hour storm with a 72-hour antecedent dry period through evapotranspiration, infiltration and/or stormwater harvesting.
- 2012 Albuquerque, NM Phase I MS4 permit: Capture the 90th percentile storm event runoff to mimic the predevelopment hydrology of the previously undeveloped site.
- 2010 Anchorage, AK Phase I MS4 permit: Keep and manage the runoff generated from the first 0.52 inches of rainfall from a 24 hour event preceded by 48 hours of no measureable precipitation.
- 2013 Western WA small MS4 permit: Implement low impact development performance standards to match developed discharge durations to pre-developed durations for the range of pre-developed discharge rates from 8% of the 2-year flow to 50% of the 2-year flow.

BOX 3. Examples of WQBELs in Industrial (including Construction) Stormwater Permits:

1. Numeric expression of the WQBEL: The permit includes a specific, quantifiable performance requirement that must be achieved:
   - Pollutant concentrations shall not exceed the stormwater discharge limits specified in the permit (based on state WQS), including (for example): Cadmium-0.003 mg/l; Mercury-0.0024 mg/l; Selenium-0.02 mg/l (2013 Hawaii MSGP)
   - Beginning July 1, 2010, permittees discharging to impaired waters without an EPA-approved TMDL shall comply with the following effluent limits (based on state WQS), including (for example): Turbidity-25 NTU; TSS-30 mg/l; Mercury-0.0021 mg/l; Phosphorus, Ammonia, Lead, Copper, Zinc-site-specific limits to be determined at time of permit coverage (2010 Washington MSGP)
   - If discharging to waters on the 303(d) list (Category 5) impaired for turbidity, fine sediment, or phosphorus, the discharge must comply with the following effluent limit for turbidity: 25 NTU (at the point of discharge from the site), or no more than 5 NTU above background turbidity when the background turbidity is 50 NTU or less, or no more than a 10% increase in turbidity when background turbidity is more than 50 NTU. Discharges to waterbodies on the 303(d) list (Category 5) for high pH must comply with the numeric effluent limit of pH 6.5 to 8.5 su (2010 Washington CGP) (2010 Washington CGP)

2. Narrative expression of the WQBEL: The permit includes narrative effluent limits based on applicable WQS:
   - New discharges or new dischargers to an impaired water are not eligible for permit coverage, unless documentation or data exists to show that (1) all exposure of the pollutant(s) of concern to stormwater is prevented; or (2) the pollutant(s) of concern are not present at the facility; or (3) the discharge of the pollutant(s) of concern will meet instream water quality criteria at the point of discharge (for waters without an EPA-approved TMDL), or there is sufficient remaining WLAs in an EPA-approved TMDL to allow the discharge and that existing dischargers are subject to compliance schedules to bring the waterbody into attainment with WQS (2011 Vermont MSGP; similar requirements in RI, NY, MD, VA, WV, SC, AR, TX, KS, NE, AZ, CA, AK, OR, and WA permits)
   - In addition to other applicable WQBELs, there shall be no discharge that causes visible oil sheen, and no discharge of floating solids or persistent foam in other than trace amounts. Persistent foam is foam that does not dissipate within one half hour of point of discharge (2014 Maryland MSGP)

3. Requirement to implement additional practices or procedures for discharges to impaired waters:
   - For sediment-impaired waters (without an approved TMDL), the permittee is required to maintain a minimum 50-foot buffer zone between any disturbance and all edges of the receiving water (2009 Kentucky CGP)
   - For discharges to impaired waters, implement the following: (1) stabilization of all exposed soil areas immediately, but in no case later than 7 days after the construction activity in that portion of the site has temporarily or permanently ceased (as compared to 14 days for no-impaired waters); (2) temporary sediment basins must meet specified design standards if they will serve an area of 5 or more acres (as compared to 10 or more acres for other sites); (3) retain a water quality volume of 1 inch of runoff from the new impervious surfaces created by the project (though this volume reduction requirement is for discharges to all waters, not just impaired waters) (2013 Minnesota CGP).
   - If the site discharges to a water impaired for sediment or turbidity, or to a water subject to an EPA-approved TMDL, the permittee must implement one or more of the following practices: (1) compost berms, compost blankets, or compost socks; (2) erosion control mats; (3) tackifiers used with a perimeter control BMP; (4) a natural buffer of 50 feet (horizontally) plus 25 feet (horizontally) for 5 degrees of slope; (5) water treatment by electro-coagulation, flocculation, or filtration; and/or (6) other substantially equivalent sediment or turbidity BMP approved by the state (2010 Oregon CGP)

EXHIBIT 5

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Superior Court of California
County of Los Angeles

FEB 09 2018

Sherri R. Carter, Executive Officer/Clerk
By Fernando Becerra, Jr., Deputy

SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF LOS ANGELES

STATE OF CALIFORNIA DEPARTMENT OF FINANCE, et al., Petitioners, vs. COMMISSION ON STATE MANDATES, Respondent, COUNTY OF LOS ANGELES, et al., Real Parties in Interest. AND RELATED CROSS-PETITION.	Case No.: BS130730 ORDER GRANTING PETITION FOR WRIT OF MANDATE (POST-REMAND) AND DENYING CROSS-PETITIONS AS MOOT Hearing Date: January 31, 2018 Dept.: 86

I. Introduction

In December 2001, the Los Angeles Regional Water Quality Control Board ("Regional Board") issued a municipal stormwater permit (the "permit") to the County of Los Angeles, Los

Angeles County Flood Control District, and 84 cities (the "Operators"). (AR 1560-1634.) The permit imposed requirements to regulate discharges from and pollutants entering the Operators' municipal separate storm sewer systems ("MS4s"). Among other provisions, the permit required the permittees to (1) place and maintain trash receptacles at transit stops (AR 1610); and (2) inspect various commercial facilities (AR 1590-92), industrial facilities (AR 1592-93) and construction sites (AR 1604-05).

In 2003, the Operators filed "test claims" with the Commission on State Mandates ("Commission") seeking a subvention of funds under article XIII B, section 6 for these permit requirements. Article XIII B, section 6 provides in part that "[w]henever the Legislature or any state agency mandates a new program or higher level of service on any local government, the State shall provide a subvention of funds to reimburse that local government for the costs of the program or increased level of service . . . ." The Commission originally refused jurisdiction over the claims because Government Code § 17516(c)'s definition of "executive order" excluded permits issued by the Regional Boards. On appeal, the Second District held that exclusion of the Regional Board permits from the definition of "executive order" was unconstitutional.

Thereafter, the Operators re-filed their test claims with the Commission. On July 31, 2009 the Commission issued a Statement of Decision (SOD). (AR 5555 – 5626.) In the SOD, the Commission concluded, as to Issue 1, that the challenged permit conditions were subject to article XIII B, section 6 of the California constitution and made the following findings: (A) the permit is an executive order within the meaning of article XIII B, section 6 of the California constitution and Government Code section 17516 (AR 5574); (B) the challenged sections of the permits were not undertaken at the option or discretion of the claimants (AR 5575); and (C) none of the challenged provisions in the permit (the transit trash receptacle and inspection permit provisions in Parts 4C2a, 4C2b, 4E and 4F5c3) was a federal mandate (AR 5576 – 5603). The Commission's SOD concluded, on Issue 2, that all of the challenged provisions imposed a new program or higher level of service within the meaning of article XIII B, section 6 of the California constitution. (AR 5603.) Addressing Issue 3, the Commission's SOD examined whether the challenged provisions imposed costs mandated by the state within the meaning of Government Code sections 17514 and

17556 or qualified for any exceptions under Government Code section 17556. (AR 5605.) With respect to the provisions requiring inspections, the Commission concluded the exception in Section 17556(d) applied because various statutes give the local authorities discretion to impose fees. (AR 5625.) However, the Commission concluded the permit's requirements (under part 4F5c3) for the placement and maintenance of trash receptacles was a program that qualified as a state mandate subject to subvention. (AR 5625.)

Petitioners Department of Finance, State Water Resources Control Board ("State Board") and Regional Board (collectively "Petitioners" or "State Agencies") filed a petition for writ of mandate to set aside the Commission's decision arguing it was an abuse of discretion to conclude the challenged permit provisions were state mandates subject to article XIII B section 6 and that the SOD was erroneous because (1) the permit terms were required by federal law and thus not state mandates (Petition ¶ 33(a)); (2) the permit terms did not impose a new program or higher level of service (Petition ¶ 34); and (3) the permittees had authority to levy fees to pay for the trash receptacle requirement (Petition ¶ 35). The County and several cities filed a cross-petition seeking to set aside the Commission's determination the inspection costs were not reimbursable because the Operators had the ability to assess fees to cover them.

In August 2011, this Court (Judge Ann I. Jones presiding) issued a decision concluding the challenged permit terms were federal mandates and thus not reimbursable state mandates under Government Code section 17556(c). The Court did not address the cross-petition. On October 16, 2013, the Second District affirmed this ruling. On August 29, 2016, the Supreme Court reversed holding that the permit requirements were not federal mandates. (*Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 772.) The Supreme Court remanded the matter back to this Court to address the "other arguments in [the State's] writ petition" as well as "the issues presented in the Operators' cross-petition." (*Id.* at 772.)

Petitioners and Cross-Petitioners have both filed briefs in support of their additional arguments. Petitioners seek a writ of mandate setting aside the Commission's decision in part arguing (1) the permit terms did not impose a new program or higher level of service and (2) the permittees had fee authority to pay for the trash receptacle. Cross-Petitioners also seek a writ of

mandate setting aside the Commission's decision in part arguing that they did not have authority to levy fees to pay for inspections of commercial, industrial, and construction sites.

II. Statutory Framework

A. The Clean Water Act

The permit at issue in this case was issued pursuant to obligations imposed by the Clean Water Act (CWA) (33 U.S.C. §§ 1251-1387) which was originally enacted as an amendment to the Federal Water Pollution Control Act. Section 1311(a) of the CWA articulates a broad federal prohibition against water pollution ("Except in compliance with this section and [other sections], the discharge of any pollutant by any person shall be unlawful") and imposes criminal penalties against any knowing violation. (33 U.S.C. § 1311(a), § 1319.) The Act's primary means for enforcing effluent limitations and standards is the National Pollution Discharge Elimination System (NPDES). "The NPDES sets out the conditions under which the federal EPA or a state with an [EPA] approved water quality control program can issue permits for the discharge of pollutants in wastewater. (33 U.S.C. § 1342(a) & (b).) In California, wastewater discharge requirements established by [permits issued by the regional boards] are the equivalent of the NPDES permits required under federal law." (*City of Burbank v. State Water Resources Control Bd.* (2005) 35 Cal.4th 613, 621.)

In 1987 amendments, "Congress distinguished between industrial and municipal storm water discharges. With respect to *industrial* storm water discharges, Congress provided that NPDES permits 'shall meet all applicable provisions of this section and section 1311 [requiring the EPA to establish effluent limitations under specific timetables] ....'" (*Building Industry Ass'n of San Diego County v. State Water Resources Control Bd.* (2004) 124 Cal.App.4th 866, 874 [citing 33 U.S.C. § 1342(p)(3)(A)].) "With respect to *municipal* storm water discharges, Congress clarified that the EPA had the authority to fashion NPDES permit requirements to meet water quality standards without specific numerical effluent limits and instead to impose 'controls to

reduce the discharge of pollutants to the maximum extent practicable ....'" (*Ibid* [citing 33 U.S.C. § 1342(p)(3)(B)(iii)].) The law requires permits for municipal stormwater discharge to be prohibitory, stating that such permits "shall include a requirement to effectively prohibit non-stormwater discharges into the storm sewers" and "shall require controls to reduce the discharge of pollutants to the maximum extent practicable . . . ." (33 U.S.C. 1342(p)(3)(B)(ii) and (iii).)

B. *California Porter-Cologne Water Quality Control Act*

In 1969, California enacted the Porter-Cologne Water Quality Control Act. (Wat. Code, § 13000 *et seq.*) The Act established the State Water Resources Control Board, responsible for establishing statewide policy, as well as nine regional water quality control boards, responsible for creating water quality control plans and issuing permits to govern the discharge of waste. (Wat. Code, § 13001; *Building Industry, supra*, 124 Cal.App.4th at 875.) Shortly after Congress enacted the Clean Water Act in 1972, the California Legislature added chapter 5.5 to the Porter-Cologne Act to ensure that it would obtain approval to implement the provisions of the Clean Water Act. (Wat. Code, § 13370(c); *Building Industry, supra*, 124 Cal.App.4th at 875.) In 1973, California obtained approval to issue NPDES permits. (*Environmental Protection Agency v. California ex rel. State Water Resources Control Bd.* (1976) 426 U.S. 200, 209.)

Under chapter 5.5 of the Porter-Cologne Act, the Water Boards issue "waste discharge requirements" which "ensure compliance with all applicable provisions of the [Clean Water Act] . . . together with any more stringent effluent standards or limitations necessary to implement water quality control plans . . . ." (Wat. Code § 13377.) These "wastewater discharge requirements established by the regional boards are the equivalent of the NPDES permits required by federal law." (Wat. Code § 13374; *City of Burbank v. State Water Resources Control Bd.* (2005) 35 Cal.4th 613, 621.)

C. The 2001 Permit

In December 2001, the Regional Board issued to the Operators the municipal stormwater permit at issue in this case. (AR 1560-1634.) The permit imposed requirements to regulate discharges from and pollutants entering the Operators' MS4s. Among other provisions, the permit required the permittees to (1) place and maintain trash receptacles at transit stops (AR 1610); and (2) inspect various commercial facilities (AR 1590-92), industrial facilities (AR 1592-93) and construction sites (AR 1604-05). (See *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 758.)

III. Standard of Review

Code of Civil Procedure section 1094.5 is the administrative mandamus provision providing the procedure for judicial review of adjudicatory decisions rendered by administrative agencies. (*Topanga Ass'n for a Scenic Community v. County of Los Angeles*, (1974) 11 Cal. 3d 506, 514-15.) Section 1094.5(a) states, in pertinent part, that "[w]here the writ is issued for the purpose of inquiring into the validity of any final administrative order or decision made as the result of a proceeding in which by law a hearing is required to be given, evidence is required to be taken, and discretion in the determination of facts is vested in the inferior tribunal, corporation, board, or officer, the case shall be heard by the court sitting without a jury." Under Section 1094.5(b), the pertinent issues are: (1) whether the respondent has proceeded without jurisdiction; (2) whether there was a fair trial; and (3) whether there was a prejudicial abuse of discretion. An abuse of discretion is established if the respondent has not proceeded in the manner required by law, the decision is not supported by the findings, or the findings are not supported by the evidence. (Code Civ. Proc. § 1094.5(b).)

In general, an agency is presumed to have regularly performed its official duties. (Evid. Code § 664.) Therefore, the petitioner seeking administrative mandamus has the burden of proof. (*Steele v. Los Angeles County Civil Service Commission*, (1958) 166 Cal. App. 2d 129, 137; see

also *Alford v. Pierno* (1972) 27 Cal.App.3d 682, 691 ["[T]he burden of proof falls upon the party attacking the administrative decision to demonstrate wherein the proceedings were unfair, in excess of jurisdiction or showed prejudicial abuse of discretion."].)

In this case, the determination whether the permit is a state-mandated program or higher level of service under article XIII B, section 6 is a question of law that the Court reviews *de novo.* (*County of San Diego v. State*, (1997) 15 Cal.4th 68, 109; *Carmel Valley Fire Protection Dist. v. State of California*, (1987) 190 Cal.App.3d 521, 536.) When reviewing the Commission's determination, the Court reviews the record to determine if substantial evidence supports the decision. (Gov. Code § 17559(b).)

IV. Analysis

A. *Petitioners Did Not Waive the Arguments in their Writ Petition*

After determining that the permit conditions were not federally mandated, the Supreme Court remanded the matter with the following instructions:

> Although we have upheld the Commission's determination on the federal mandate question, the State raised other arguments in its writ petition. Further, the issues presented in the Operators' cross-petition were not addressed by either the trial court or the Court of Appeal. We remand the matter so those issues can be addressed in the first instance.

(*Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 772.) Cross-Petitioners argue that Petitioners waived the arguments they now assert ((1) that the permit requirements did not impose a new program or higher level of service; and (2) that the Operators have fee authority sufficient to pay for the trash receptacle requirement) because they failed to raise those arguments in their original "Memorandum of Points and Authorities in Support of Petition for Writ of Administrative Mandamus" filed on June 10, 2011. However, Petitioners did raise those arguments in their original *writ petition* filed on February 17, 2011. (See Petition ¶ 34,

35.) The Supreme Court's mandate directs this Court to address the State's "other arguments in its writ petition." The Court therefore finds Petitioners may assert them on remand.

B. *The Permit Is Not a State Mandated Program or Policy for which the Operators Are Entitled to a Subvention of Funds Under Article XIII B*

Article XIII B, section 6 provides in part that "[w]henever the Legislature or any state agency mandates a new program or higher level of service on any local government, the State shall provide a subvention of funds to reimburse that local government for the costs of the program or increased level of service . . . ." In this action, the Operators seek a subvention of funds to pay for the trash receptacle and inspection requirements imposed by the 2001 municipal stormwater permit (the "permit").

The Commission concluded the receptacle and inspection requirements constituted "a program within the meaning of article B, section 6." (AR 5603.) It pointed out the requirements "are limited to local government entities" and "[provide] a service to the public by preventing or abating pollution in waterways and beaches in Los Angeles County." (*Id.*) The Commission also cited page 13 of the permit which states, "The objective of this Order is to protect the beneficial uses of receiving waters in Los Angeles County." (*Id.*)

Petitioners contend that the Operators are not entitled to reimbursement because the Clean Water Act is a law of general applicability that prohibits both public and private entities from discharging pollutants from point sources to waters of the United States without an NPDES permit. In support of this argument, Petitioners cite several cases addressing state legislation: *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, and *City of Richmond v. Commission on State Mandates* (1998) 64 Cal.App.4th 1190.

In *County of Los Angeles*, the County of San Bernardino and City of Los Angeles filed test claims seeking reimbursement for expenditures mandated by newly enacted laws increasing the amounts which employers, including local governments, must pay in workers' compensation

benefits to injured employees and families of deceased employees. (*County of Los Angeles, supra*, 43 Cal.3d at 50-51.) The Supreme Court held that the reimbursement claims were properly denied by the State Board because "the state need not provide subvention for, the costs incurred by local agencies in providing to their employees the same increase in workers' compensation benefits that employees of private individuals or organizations receive." (*Id.* at 57-58.) The Supreme Court explained:

> "[W]hen the voters adopted article XIII B, section 6, their intent was not to require the state to provide subvention whenever a newly enacted statute resulted incidentally in some cost to local agencies. Rather, the drafters and the electorate had in mind subvention for the expense or increased cost of programs administered locally **and for expenses occasioned by laws that impose unique requirements on local governments and do not apply generally to all state residents or entities.**

(*Id.* at 46-50, emphasis added.)

In *City of Sacramento*, the City of Sacramento and County of Los Angeles filed claims with the State Board seeking subvention of the costs imposed on them by statutes which extended mandatory coverage under the state's unemployment insurance law to state and local governments and nonprofit corporations. (*City of Sacramento*, 50 Cal.3d at 59.) The City and County argued that the statutes imposed a unique requirement on them because it applied only to them and compelled costs to which they were not previously subject. (*Id.* at 68.) The Supreme Court held that the statute did not constitute a "new program" or "higher level of service" because "[m]ost private employers in the state already were required to provide unemployment protection to their employees" and thus the statute "merely [made] the local agencies 'indistinguishable in this respect from private employers.' " (*Id.* at 67.)

In *City of Richmond*, the city filed a test claim with the Commission on State Mandates seeking subvention of the costs imposed on it by a statute extending workers' compensation death benefits. (*City of Richmond, supra*, 64 Cal.App.4th at 1193.) The appellate court held that the City was not entitled to reimbursement because "the law ma[de] the workers' compensation death benefit requirements as applicable to local governments as they are to private employers" and thus

"impose[d] no 'unique requirement' on local governments." (*Id.* at 1199.) The court observed that, "while the result of chapter 478 is that local safety members of PERS now are eligible for two death benefits and local governments will have to fund the workers' compensation benefit, chapter 478 does not mandate double death benefits. Instead, it merely eliminates the offset provisions of Labor Code section 4707. In this regard, the law makes the workers' compensation death benefit requirements as applicable to local governments as they are to private employers. It imposes no "unique requirement" on local governments." (*Id.* at 1199.)

Although in each of these cases, the "state mandate" under consideration was legislation of general applicability, whereas in this case, the "state mandate" is the particular NPDES permit ("executive order") challenged in the test cases, this Court does not regard that distinction as making any difference. Under Government Code § 17514, "costs mandated by the state" are defined to include statutes and executive orders. In the first round of appeals in this case, the appellate court in *County of Los Angeles v. Commission on State Mandates* (2007) 150 Cal.App.4th 898 rejected, as unconstitutional, the provision in Section 17516(c), which purported to exempt "any order, plan requirement, rule or regulation" of the State Water Resources Control Board from the definition of an "executive order" potentially subject to subvention. The language in that court's discussion of the matters to be remanded to the Commission specifies that the "state mandate" under consideration is the permit:

> "The Commission urges that should this court conclude Section 17516(c) is unconstitutional, the appropriate remedy is to afford the Commission the opportunity to pass on the merits of the subject test claims on the issues of whether (1) *the subject permit* qualifies as a state-mandated program under article XIII B, section 6; (2) *the permit* amounts to a new program or higher level of services; and (3) *the permit* imposes costs on local entities. (Gov. Code, § § 17514, 17556. We find its position persuasive."

(*Id.* at 905, emphasis added.) The court further noted that the question "[w]hether *the permit* in question . . . governs both public and private pollution dischargers to the same extent present[ed] factual issues not yet resolved." (*Id.* at 919, emphasis added.) Consistent with this language, the Commission concluded "the issue is not whether NPDES permits generally constitute a 'program'

within the meaning of article XIII B, section 6," but "whether the permit in this test claim . . . constitutes a program because this permit is the only one over which the Commission has jurisdiction." (AR 5604.) On remand, the Commission resolved this issue, concluding that the permit applied exclusively to local agencies and therefore constituted a "program" within the meaning of article XIII B, section 6. (AR 5603.) Based on the language in *County of Los Angeles* quoted above, this Court agrees with the Commission that the question before this Court is whether the Operators' permit includes one or more state mandates subject to subvention. As explained below, this Court concludes it does not.

In *County of Los Angeles, supra,* the Supreme Court provided two alternative definitions for "program" under article XIII B, section 6, explaining they could either be "programs that carry out the governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state." (*County of Los Angeles*, *supra*, 43 Cal.3d at 56.) The Supreme Court based these definitions on the intent behind constitutional amendment as evidenced by the Ballot Pamphlet presented to the voters. The court focused on language in the Pamphlet emphasizing the measure would "not allow the state government to force programs on local governments without the state paying for them." (*Id.*) Based on this language, the Supreme Court concluded "the intent underlying section 6 was to require reimbursement to local agencies for the costs involved in carrying out functions peculiar to government, not for expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities." From the Supreme Court's point of view, "[l]aws of general application are not passed by the Legislature to 'force' programs on localities." (*Id.* at 57.) The Supreme Court concluded "the intent underlying section 6 was to require reimbursement to local agencies for the costs involved in carrying out functions peculiar to government, not for expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities." (*Id.* at 56-57.)

As noted above, the Commission concluded the receptacle and permitting requirements in the permit constituted "programs" subject to subvention apparently referencing the first alternative definition of "program" in *County of Los Angeles*. This Court is not, however, persuaded the

receptacle and inspection requirements are "programs that carry out the governmental function of providing services to the public." Unlike the executive order establishing minimum clothing and equipment requirements for firefighters addressed in *Carmel Valley Fire Protection District v. State of California* (1987) 190 Cal.App.3d 521, 537, an NPDES permit enforcing a prohibition against polluting is not a government program in the usual sense of the word. Indeed, a ban on contaminated discharges is more akin to a criminal law than a program delivering a service to the public at the taxpayers' expense. It is noteworthy that Section 17556(g) exempts from subvention costs mandated by statutes creating new crimes "for that portion of the crime relating directly to the enforcement of the crime ...." By analogy, costs incurred to enforce the anti-pollution laws should not be treated as state mandated programs entitled to reimbursement by the state.

The Court also disagrees with the Operators' contention "the collection of trash and the enforcement of statutes and regulations intended to prevent pollution" constitute "programs" for purposes of subvention. (Opp. p. 9.) As noted above, these conditions enforce a prohibition rather than initiate or upgrade "classic" or "peculiarly governmental functions[s]" like the firefighting services affected by the executive order in *Carmel Valley*. (*Id.*) Because the requirements were implemented to prevent pollution (enforce a ban on pollution) rather than to provide a service to the public, it is difficult to regard them as "programs that carry out the governmental function of providing services to the public."

Addressing *County of Los Angeles'* second alternative definition of "programs," it is a closer question whether the permit's receptacle and inspection requirements are "laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state." (*County of Los Angeles, supra*, 43 Cal.3d at 56.) There is no doubt the permit (which only applies to local governments) "uniquely" imposes the receptacle and inspection requirements on local governments. However, the relevant "state policy" implemented by the permit is the federal and state law prohibition against unlawful discharges. That policy "appl[ies] generally to all residents and entities in the state." In contrast with the upgrade in firefighter clothing and equipment mandated by the executive order in *Carmel*

Valley, this is not the type of policy the voters intended to embrace in the ballot measure giving rise to section 6.

The NPDES policy implemented by the permit effectuates laws of general application that prohibit both public and private entities from discharging contaminants into the waterways except as specified in an NPDES permit. By its terms, the Operators' NPDES permit is the means by which the state ensures that public entities abide by the same prohibitions against contaminated discharges that the law imposes on private parties. Although it is true that, like the workers compensation statute at issue in *County of Los Angeles*, the NPDES permit is "administered by the state," that does not necessarily mean the state has forced the expense of its program or policy onto the local governments. (*Id.* at 58.)

Moreover, just because the requirements are "unique" to the local governments and cause them to incur costs does not mean the local entities are necessarily entitled to reimbursement from the state. Whereas a private industrial discharger has considerable power to control its operations and employees to prevent contaminated discharges, municipalities cannot prevent contaminated discharges without inducing or policing the public to refrain from harmful conduct. It is therefore inevitable that the Operators' NPDES permit includes measures "unique" to local governments such as the receptacle and inspection requirements at issue here. Indeed, because the anti-pollution laws, the permit and the policies behind them implement a ban on unlawful discharges that applies to both public and private entities, the state must, as a practical matter, impose "unique" requirements on local governments to ensure that their required compliance is "indistinguishable . . . from private employers." (*Id.*)

Given that the "state policy" advanced by the permit is to enforce a ban of general application rather than to initiate or expand waste collection and/or inspection services, it is not reasonable to interpret the receptacle and inspection requirements as a policy (or program) initiated by the State Water Board "to 'force' [trash collection and inspection] programs on localities." (*Id.*) As noted in *County of Los Angeles*, "the intent underlying section 6 was to require reimbursement to local agencies for the costs involved in carrying out functions peculiar to government, *not for*

expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities." (*Id.* at 56-57, emphasis added.)

In this case, the costs incurred by the local governments are an "incidental impact of laws [and policies] that apply generally to all state residents and entities" rather than the result of a state mandate shifting the costs of a state initiated program to the local governments. (*County of Los Angeles,* 43 Cal.3d at 57.) This Court finds the receptacle and inspection requirements are not state mandated programs subject to subvention and grants the petition for writ of mandate.

C. Petitioners' and Cross-Petitioners' Remaining Arguments Are Moot

Because the Court has determined the Operators are not entitled to reimbursement for the costs of complying with the permit's receptacle or inspection requirements, the parties' remaining arguments (as to whether the Operators had fee authority to levy service charges to pay for the trash receptacle requirement and inspection requirement) are moot.

V. Conclusion

For the reasons stated above, the Court GRANTS the Petition for Writ of Mandate and remands this matter to the Commission on State Mandates for proceedings consistent with this decision.

Dated: FEB 09 2018

AMY D. HOGUE, JUDGE

JUDGE OF THE SUPERIOR COURT

EXHIBIT 6

ADVERTISEMENT

TIMESOC

Settlement ends 18-month battle surrounding Orange County homeless lawsuit

U.S. District Court Judge David O. Carter takes photos at a homeless encampment along the Santa Ana River in Anaheim in 2018. (File Photo / Los Angeles Times)

BY DANIEL LANGHORNE

JULY 24, 2019 11:05 AM PT

A federal judge called an agreement between Orange County and attorneys representing homeless individuals a model for how county governments should care for those in need of shelter.

U.S. District Judge David O. Carter signed the pact Tuesday at the Ronald Reagan Federal Building in Santa Ana, following unanimous approval by the Board of Supervisors last week.

"You're far in front of any other county in this state, and I hope the governor recognizes that," Carter said.

His signature ends an 18-month legal battle that started with a lawsuit filed in January 2018 that blocked the county's effort to clear homeless people who have set up camp along the Santa Ana River trail and prevent three cities — Anaheim, Costa Mesa and Orange — from enforcing anti-camping, trespassing and loitering laws.

NEWS

Newport Beach locals express sympathy for the homeless on their streets, but say enforcement still needed

July 23, 2019

First District Supervisor Andrew Do, who led the county's negotiations with homeless advocates, read a statement that was entered into the court record.

"To say that this is a momentous occasion is to undersell the watershed moment that it is," Do said.

The agreement requires that homeless individuals be allowed to consult with county health care, social workers or county-contracted service providers before deputy sheriffs can enforce anti-camping and anti-loitering laws.

County officials will prohibit sheriff's deputies from transporting homeless individuals across the three "service planning areas" — North, Central and South County — to house them at a shelter. For example, deputies can no longer move a homeless person from Mission Viejo to Santa Ana.

After giving a homeless person a reasonable opportunity to move their belongings, deputies can move the homeless from O.C. Flood Control District property, John Wayne Airport, county libraries after they've closed for the day, contracted railroad areas and county property otherwise not open to the public.

The settlement also addresses homeless advocates' complaints about the unsanitary conditions of county-funded homeless shelters. The county reaffirmed its commitments to providing facilities that are accessible, clean, safe and pest-free.

Do said he is optimistic the agreement will help the county overcome its conservative image and a stigma that it's adverse to caring for those without shelter.

"This will hopefully dispel some of that," he said.

Attorney Carol Sobel said the settlement doesn't mark the end of advocates' discussions with the county on caring for its homeless population.

Although planned service centers in Placentia and Buena Park will provide beds to the homeless, there's still work to do on increasing the emergency capacity, she said.

"We don't have enough, but we sure have a lot more than when we started litigation," Sobel said.

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SIGN ME UP

DECLARATION OF JAMES FORTUNA

DECLARATION OF JAMES FORTUNA

I, JAMES FORTUNA, hereby declare and state as follows:

1. I make this declaration based upon my own personal knowledge, except for matters set forth herein on information and belief, and as to those matters I believe them to be true, and if called upon to testify, I could and would competently testify to the matters set forth herein under oath.

2. I am an Administrative Manager II employed by the County of Orange and work in the OC Environmental Resources service area of OC Public Works. I serve as Manager of the North Orange County Watershed Management Area for the Orange County Stormwater Program ("OC Stormwater"). In that capacity, I supervise Principal Permittee programs required to comply with the requirements of the municipal separate storm sewer system ("MS4") permit issued to the County of Orange, the Orange County Flood Control District and 26 cities (collectively, "permittees") in the northern portion of Orange County ("North County"). The MS4 permit applicable to North County permittees is that issued by the California Regional Water Quality Control Board, Santa Ana Region ("Santa Ana Water Board"), as Order No. R8-2009-0030 (the "2009 Permit"). The County of Orange is the Principal Permittee under the 2009 Permit.

3. OC Stormwater acts as a coordinating agency for the permittees under the 2009 Permit, and in the role, develops compliance strategies, provides program implementation guidance and training for each program element of the 2009 Permit, oversees regional monitoring efforts, leads program management meetings with the permittees, and retains and supervises consultants. As Program Manager for North County, I am familiar with the programs undertaken by OC Stormwater on behalf of the permittees, and also with the requirements of the

2009 Permit applicable to the permittees. I am both aware of the programs and costs set forth in my declaration and have reviewed records setting forth those programs and costs.

4. While OC Stormwater and the North County permittees have engaged in programs to address pollutants within North County watersheds prior to 2009, the 2009 Permit introduced new requirements applicable to the North County permittees, including the incorporation, for the first time, Total Maximum Daily Loads ("TMDLs") applicable to certain constituents. Included with those requirements were the imposition of wasteload allocations ("WLAs"), which set forth numerically the amounts of pollutants allowed to be discharged by MS4s operated by the North County permittees. Prior to the effective date of the 2009 Permit, WLAs for these constituents were not incorporated into MS4 permits issued to the North County permittees.

5. Since the effective date of the 2009 Permit, and acting on behalf of the North County permittees, OC Stormwater has conducted various programs to comply with the TMDLs/WLAs established in the 2009 Permit. The cost of such programs are shared among those North County permittees whose MS4s discharge into waterbodies covered by the TMDLs/WLAs.

6. With respect to the TMDL for selenium in San Diego Creek and Newport Bay, the following new programs, among others, have been undertaken to comply with the requirements of the TMDL, including compliance with WLAs:

a. Monitoring of bird egg and fish tissue for the presence of selenium (at an approximate cost of $755,000 since 2010;

b. Design and construction of two projects, the Peters Canyon Channel Water Capture and Reuse Pipeline (at an approximate cost of $7,728,000) and the Santa Ana-Delhi Diversion (at an approximate cost of $5,827,000);

c. Programmatic implementation for the TMDL for selenium under the Nitrogen and Selenium Management Program Working Group, which is a collaborative stakeholder group focused on addressing selenium and nitrogen in the Newport Bay watershed. These efforts since the inception of the 2009 Permit include a selenium water balance investigation (at an approximate cost of $160,000), studies for developing selenium site-specific objectives (at an approximate cost of $349,000), treatment technology evaluations and additional consultant support (at an approximate cost of $1,058,000); and

d. I am informed and believe and therefore state that in addition that the City of Newport Beach also conducted restoration and maintenance efforts for Big Canyon Creek (at an approximate cost of $6,674,318 since 2009), and other selenium reduction efforts (at an approximate cost of $3,325,368 since 2009), both independent from efforts conducted by OC Stormwater.

7. With respect to the TMDL for organochlorine compounds ("OCs") in Newport Bay and San Diego Creek, the following new programs, among others, have been undertaken to comply with the requirements of the TMDL, including compliance with WLAs:

a. Additional monitoring costs related to the need to add three groups of compounds, which include seven Aroclor polychlorinated biphenyls (Arochlor PCBs), 34 chlorinated pesticides and 53 PCB congeners to the list of analytes (at an approximate cost of $816,264 since 2010);

b. Preparation of WLA Evaluation Assessment required to be sent to the Santa Ana Water Board (at an approximate cost of $44,000); and

c. Bird egg and fish tissue monitoring for OCs (at an approximate cost of $755,000 since 2010).

8. With respect to the TMDLs for metals in Coyote Creek for wet and dry weather, the following new programs, among others, have been undertaken to comply with the requirements of these TMDLs, including compliance with WLAs:

a. Monitoring, laboratory, and data management costs (with an approximate cost of $1,121,398 since 2011).

9. With respect to the TMDL for fecal coliform in Newport Bay, the following new programs, among others, having been undertaken to comply with the requirements of the TMDL, including compliance with WLAs:

a. Complete engineering evaluations and analyses for new potential structural BMP projects at locations that drain into Newport Bay (at an approximate cost of $302,936); and

b. Develop and implement a Source Investigation Study Design to evaluate human sources of fecal contamination and conduct targeted source investigations (presently ongoing, at an approximate cost of $200,000 as of 2022).

10. In addition to costs associated with particular TMDLs, North County permittees have also incurred costs since the inception of the 2009 Permit through participation in the Newport Bay TMDL Funding Partners, which serves as the planning body to discuss additional studies, research, monitoring, reporting, development and revision of programs related to the

Newport Bay TMDLs. This participation, which covers each of the TMDLs discussed above for the Newport Bay Watershed, cost North County permittees approximately $5,332,960 in reimbursement of County of Orange labor costs since 2009.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed November 3, 2022 at Orange, California.

James Fortuna

DECLARATION OF ROBERT RODARTE AND EXHIBITS THERETO

DECLARATION OF ROBERT RODARTE

I, ROBERT RODARTE, hereby declare and state as follows:

1. I am employed as an Administrative Manager 1 by the County of Orange ("County") and serve as Manager, Green Infrastructure Program for the OC Public Works Department. In that capacity, I oversee a variety of NPDES permit compliance responsibilities, including new development and construction requirements for OC Public Works. I am aware of construction requirements set forth in the NPDES permit issued for MS4 discharges from municipalities in North Orange County, including the County, by the California Regional Water Quality Control Board, Santa Ana Region, as Order No. R8-2009-0030 (the "2009 Permit").

2. In my role as Manager, Green Infrastructure Program, I am aware of County projects that would qualify as "Priority Development Projects" ("PDPs") as defined in Section XII of the 2009 Permit and which would, by virtue of that status, be required to incorporate Low Impact Development and hydromodification best management practices ("LID-BMP") to comply with the requirements of Section XII of the 2009 Permit.

3. I have reviewed records of several of the PDPs constructed by the County since the LID-BMP requirement became effective. My review has included a review of Agenda Staff Reports ("ASRs") for these projects. ASRs are filed with the County Board of Supervisors prior to their taking action on the projects. The ASRs provide Board members with such information as the need for the projects and their financing and contains County staff recommendations for Board action.

4. Among the County PDPs that I have reviewed are the following:

a. County Administration North ("CAN") (Identified as "Building 14" in the ASR): This project consists of a building needed to provide space for County governing and administrative functions. According to the ASR, CAN is part of the Civic Center Facilities Strategic Plan ("Civic Center FSP") and provides further that "[k]ey goals of the Civic Center FSP are to improve the delivery of County services to the community by grouping similar and related services; to improve efficiencies through these departmental adjacencies; reduce energy costs by capitalizing on the Central Utilities Facility; and to improve space usage which will result in lower long-term operating and maintenance costs for the County." A true and correct copy of the ASR for this project, minus attachments, is attached as Exhibit 1 to my Declaration. CAN has been completed and currently houses the Board of Supervisors, the Board of Supervisors meeting room and the offices of various County departments, including the Health Care Agency, the County Executive Office, County Counsel, and Human Resource Services.

b. County Administration South (CAS) (Identified as "Building 16" in the ASR): This project consists of two buildings intended to provide space for County administrative functions. According to the ASR, CAS is part of the Civic Center FSP and provides further that "[k]ey goals of the [Civic Center FSP] are to improve the delivery of County services to the community by grouping similar and related services; to improve efficiencies through these departmental adjacencies; reduce energy costs by capitalizing on the Central Utilities Facility; and to improve space usage which will result in lower long-term operating and maintenance costs for the County." A true and correct copy of the ASR for this project, minus attachments, is attached as Exhibit 2 to my Declaration. CAS has been completed and consists of a 6-story building currently housing various County departments, including OC Public Works, the Treasurer-Tax Collector, OC Waste & Recycling, and a one-stop public

counter for members of the public, and a 1-story event/conference center for use by both the County and the public and which can serve as an Emergency Administration Center when needed.

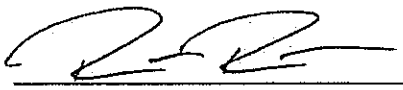
c. Yale Transitional Center: This project consists of improvements on County-owned land to provide housing for up to 425 individuals experiencing homelessness in the Central Service Planning Area of the County. According to the ASR for the project, the center "is intended to provide shelter, meals, sanitary facilities and access to case management, employment and housing assistance, healthcare, mental health services and substance abuse treatment among other supportive services and assistance to individuals experiencing homelessness." The ASR further states that the Yale Transitional Center is focused on "[p]roviding emergency shelter and access to wrap around supportive services will assist individuals experiencing homelessness . . . in accessing the appropriate resources to improve their overall health and stability" and also to "meet a critical need for individuals experiencing homelessness as well as the broader community, while also addressing a pressing social issue that is deeply affecting local businesses and neighborhoods." A true and correct copy of the ASR for this project, minus attachments, is attached as Exhibit 3 to my Declaration. The Yale Transitional Center is completed.

5. I have also reviewed the Water Quality Management Plans (WQMPs) for such PDPs. The WQMPs set forth, among other items, the size of the project and how applicable LID-BMP requirements of the 2009 Permit will be implemented by the PDP. Based on my review of the WQMPs, I am informed and believe, and therefore state, that the area of the Building 14 project is approximately 5.6 acres, the area of the Building 16 project is approximately 2.7 acres and the area of the Yale Transitional Center is approximately 2.8 acres.

Based on my review of the WQMPs, I am further informed and believe, and therefore state, that modular wetlands with underground detention were employed as LID-BMPs for the CAN and CAS projects, and a Filterra treatment system was employed as a LID-BMP for the Yale Transitional Center project.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed November 3, 2022 at Orange, California.



Robert Rodarte

EXHIBIT 1

Agenda Item

AGENDA STAFF REPORT

ASR Control 18-000944

MEETING DATE:	09/25/18
LEGAL ENTITY TAKING ACTION:	Board of Supervisors
BOARD OF SUPERVISORS DISTRICT(S):	1
SUBMITTING AGENCY/DEPARTMENT:	OC Public Works (Approved)
DEPARTMENT CONTACT PERSON(S):	Shane Silsby (714) 667-9700
	Thomas (Mat) Miller (714) 834-6019

SUBJECT: Civic Center Facilities Strategic Plan Revision and Building 14

CEO CONCUR	COUNTY COUNSEL REVIEW	CLERK OF THE BOARD
Concur	Approved Ordinance to Form	Public Hearing 3 Votes Board Majority

Budgeted: N/A | **Current Year Cost:** See Financial Impact Section | **Annual Cost:** See Financial Impact Section

Staffing Impact: No | **# of Positions:** | **Sole Source:** N/A

Current Fiscal Year Revenue: N/A

Funding Source: See Financial Impact Section | **County Audit in last 3 years:** No

Prior Board Action: 6/26/2018 #75, 4/25/2017 #40, 4/23/2013 #37, 8/21/2012 #37

RECOMMENDED ACTION(S):

1. Find that Final Environmental Impact Report No. 626, previously certified by the Board of Supervisors on April 25, 2017, together with Addendum No. 1 reflect the independent judgment of the County of Orange and satisfy the requirements of CEQA for the County of Orange Civic Center Facilities Strategic Plan Revision No. 1, which is a necessarily included element contemplated as part of the whole of the action.

2. Find that the circumstances of the County of Orange Civic Center Facilities Strategic Plan Revision No. 1 are substantially the same and that Final Environmental Impact Report No. 626 and Addendum No. 1 have adequately addressed the effects of the proposed project. No substantial changes have been made in the project; no substantial changes have occurred in the circumstances under which the project is being undertaken; and no new information of substantial importance to the project, which was not known or could not have been known when the previous Environmental Impact Report No. 626 was certified have become known; therefore no further environmental review is required.

3. All mitigation measures are fully enforceable pursuant to CEQA (Public Resources Code) Section 21081.6(b) and have either been adopted as conditions, incorporated as part of the project design, or included in the procedures of project implementation.

4. Approve the County of Orange Civic Center Facilities Strategic Plan Revision No. 1 and approve the construction of Building 14 consistent with the County of Orange Civic Center Facilities Strategic Plan Revision No. 1.

5. Authorize the Chief Real Estate Officer or designee to execute documents necessary for construction of Building 14, including, but not limited to, metes-and-bounds survey and necessary permits from the City of Santa Ana or the County.

6. Read the title of the Ordinance "An Ordinance of the Board of Supervisors of the County of Orange Authorizing the Execution and Delivery of a Facility Lease, a Ground Lease and Other Documents and Matters Related Thereto".

7. Order further reading of the Ordinance to be waived.

8. Conduct a Public Hearing.

9. Consider the matter.

10. Direct Ordinance to be placed on the agenda of the next regularly scheduled Board of Supervisors meeting for adoption.

11. At the next regularly scheduled meeting, consider the matter and adopt the Ordinance.

SUMMARY:

Adoption of the Recommended Actions will allow for full completion of Civic Center Facilities Strategic Plan Phase 2B and approves the continuance of Phase 2A design services and construction of Building 14, the lease and leaseback of the Building 14 property and reinstitution of a nonprofit corporation as it relates to the financing of Building 14 and the Civic Center Facilities Strategic Plan.

BACKGROUND INFORMATION:

On August 21, 2012, the Board of Supervisors (Board) selected Griffin Structures Inc. (Griffin) as the potential primary developer of the Building 16 and Building 14 sites. On April 23, 2013, the Board approved Ordinance 13-003 which authorized a partnership with Related/Griffin, now organized as Griffin to complete a comprehensive Civic Center Facilities Strategic Plan (Civic Center FSP) and, based upon the recommendations, to develop the Building 16 site, with an option to develop the Building 14 site. The Civic Center FSP includes the construction of a new Building 16 as part of Phase 1 and the construction of a new Building 14 as part of Phase 2. On April 25, 2017, the Board certified the Final Environmental Impact Report No. 626 (Final EIR No. 626) for the Civic Center FSP and approved actions required for public financing of Phase 1B the construction of the new Building 16 and Building 18. The construction of Buildings 16 and 18 are ongoing and currently on schedule. On June 26, 2018, the Board approved an agreement with Griffin for program management and initial design phase services for Phase 2A, which is the planning and design of the new Building 14.

Phase 2B of the Civic Center FSP, as amended, will include the demolition of existing Buildings 11, 12 and 14 of the County Civic Center Superblock and the construction of a new Building 14, which will replace the current County Hall of Administration.

The actions presented for consideration at this time would: (1) adopt Addendum No. 1 to Final EIR No. 626; (2) approve the Civic Center FSP Revision No. 1; and (3) take actions required for the public financing of the new Building 14 by the Corporation and repayment of that financing through a lease agreement with the County.

Revision No.1 County of Orange Civic Center FSP

The approved Civic Center FSP involves the +/- 11-acre County "superblock" (bounded by Ross Street, Civic Center Drive, Broadway and Santa Ana Boulevard), as well as County satellite buildings within the vicinity of the Civic Center. Key goals of the Civic Center FSP are to improve the delivery of County services to the community by grouping similar and related services; to improve efficiencies through these departmental adjacencies; reduce energy costs by capitalizing on the Central Utilities Facility; and to improve space usage which will result in lower long-term operating and maintenance costs for the County. To accomplish these goals, the Civic Center FSP anticipates the renovation of several existing facilities and the replacement of several older facilities with new construction. These activities would result in the replacement of older facilities with approximately 700,000 square feet of newly constructed government office uses within the Civic Center FSP area. The Civic Center FSP also anticipates the sale of several County owned buildings, which would result in a net decrease of 400,000 square feet of older owned properties in the Civic Center. Implementation would occur in four phases over approximately 18 years. Phase 1 activity spans from 2016 to 2020 and includes replacement of the existing Building 16 with new facilities, construction of a County conference and events center Building 18 and renovation of the H.G. Osborne Building. Phase 2 activity spans from 2020 to 2023 and includes the replacement of existing Building 14 with new facilities, demolition of Buildings 10, 11, 12 and 14. Building 10 and 12 sites become interim public use surface parking. Through the planning process for Buildings 14, 16 and 18 and the ongoing construction of Building 16 and 18, certain revision to the Civic Center FSP have become necessary. Those revisions are set forth in the attached Civic Center FSP Revision No. 1 and include a reduction of 36,201 net new building square feet within Phases 1 and 2 of the Civic Center FSP (including new Buildings 14, 16 and 18), total renovation reduction of 43,160 square feet, demolition increase of 38,420 square feet and new construction increase of 2,219 square feet.

Building 14 Implementation

Building 14 is proposed as a six-story, approximately 254,000-square foot office building located on Ross Street north of Santa Ana Boulevard. The building will include a new Board hearing room. With approval of the actions presented, construction is targeted to begin in spring 2020, with completion slated for August 2022 and public use surface parking completion in early 2023. The building will be constructed by Griffin pursuant to a Development Agreement with the Corporation, who will lease the property from the County and lease the building back to the County.

Public Financing – Lease Revenue Bonds

The Corporation was formed as part of the financing and construction of Building 16 and is a nonprofit public benefit corporation for the purpose of facilitating financings, acquisitions of property and other financial and property related transactions, by or for the benefit of the County. The Corporation is governed by a three member Board of Directors consisting of the County Executive Officer, Chief Real Estate Officer and Director of OC Public Works. Since the County owns the land on which Building 14 will be constructed, the County will enter into a Ground Lease with the Corporation. In order to finance the Building 14 project, the California Municipal Finance Authority (of which the County is a member), will issue tax-exempt bonds, to be designated as the "California Municipal Finance Authority Lease

Revenue Bonds, Series 2018A (Orange County Civic Center Infrastructure Improvement Program – Phase II)." The California Municipal Finance Authority will loan the bond proceeds, which will be utilized to construct Building 14, to the Corporation pursuant to a Loan Agreement.

The Corporation will enter into a Facility Lease with the County in which the Corporation will undertake the Building 14 project and lease the new Building 14 to the County. The base rental payments by the County under the Facility Lease will be used to repay the loan to the California Municipal Finance Authority, which pays the debt service on the Bonds to the bank trustee.

The Development Agreement is between Griffin, the developer and the Corporation for the actual construction of the new building. The Corporation will oversee the financing and construction of the Building 14 project.

The estimated par amount of the proposed California Municipal Finance Authority Lease Revenue Bonds, Series 2018A (Orange County Civic Center Infrastructure Improvement Program – Phase II) Bonds (Bonds) is $198.2 million.

Sources and uses of bond proceeds are estimated as follows:

Sources:	Par Amount	$198,220,000
	Premium	$16,529,573
	Investment Earnings-project fund	$12,398,375
	Total Sources:	**$227,147,948**
Uses:	Project Fund	$185,788,613
	Capitalized Interest Fund	$39,570,637
	Cost of Bond Issuance	$1,783,980
	Contingency	$4,718
	Total Uses:	**$227,147,948**

Public Finance staff recommends a 30-year debt service schedule, with an optional redemption provision after 10 years. The true interest cost is estimated to be 4.4%. Estimated annual base rental payments/debt service is $13.8 million, for a total cost of $393 million. An estimated $39.6 million in interest cost will be capitalized through June 1, 2023, six months beyond the expected construction period. Base rental payments will commence once the County takes occupancy of the building and the Certificate of Substantial Completion is accepted. Current year estimated $1.8 million cost of bond issuance will be paid from bond proceeds.

Credit Ratings
Presentations to Standard and Poor's Global Ratings and Fitch Ratings are scheduled for late October 2018, with formal ratings to be received prior to issuance in December 2018.

Financing Documents
Following is a description of the financing documents attached.

Ordinance of the Board of Supervisors – Ordinance to be adopted by the Board, which identifies the legal authority for the issuance of bonds, authorizes the maximum amount of bonds to be issued by the

authority, approves the Ground Lease, the Facility Lease and Appendix A of the Preliminary Official Statement. Adoption of the Ordinance by the Board will also form the Corporation.

Ground Lease – An agreement between the County of Orange and the Corporation, which sets forth the terms and conditions relating to the lease of the Building 14 site between the County of Orange and the Corporation.

Facility Lease – An agreement between the County of Orange and the Corporation, which sets forth the terms and conditions of the use of certain real property, improvements and facilities to be to be constructed, acquired and equipped by the Corporation, including Building 14.

Development Agreement– An agreement between the Corporation and Griffin whereby Griffin is engaged to develop, administer and manage the design, permitting and construction of the Building 14 project, including pursuant to a guaranteed maximum construction price, approved construction drawings and an approved project schedule.

Articles of Incorporation – Document that establishes the Corporation.

Bylaws of the Corporation – Document that describes the purpose and directors of the Corporation and sets forth its governance.

Loan Agreement – An agreement between the California Municipal Finance Authority, as issuer, and the Corporation, which sets forth the general terms and conditions of the loan financing, loan repayment and construction draws.

Indenture – An agreement between the California Municipal Finance Authority, as issuer, and Trustee (Zions Bank) pursuant to which the bonds will be issued and which sets forth the general terms and conditions and requirements governing the Bonds.

Preliminary Official Statement (POS) – Discloses material information pertaining to the issuance of the Bonds, including purpose, collateralization, repayment process, financial, economic and demographic characteristics of the County. The POS provides potential investors an opportunity to review data about the County (Appendix A) to determine the credit quality of the Bonds.

Continuing Disclosure Certificate – Provides documentation to bondholders and credit rating agencies of County certification that it will report material events that may affect the rating or payment of the Bonds and contents required in the Continuing Disclosure Annual Report.

Bond Purchase Agreement – An agreement that defines the terms and conditions under which the underwriters will purchase the Bonds. The agreement states the principal amount of the Bonds, the interest rate and maturity dates.

Compliance with CEQA: The Project is a necessarily included element of the project considered in Final EIR No. 626, which was certified by the Board on April 25, 2017, together with Addendum No. 1, which adequately addressed the effects of the proposed project. No substantial changes have been made in the project, no substantial changes have occurred in the circumstances under which the project is being undertaken and no new information of substantial importance to the project which not know or could not have been known when the Final EIR No. 626 was certified have become known; therefore no further environmental review is required.

FINANCIAL IMPACT:

Issuing the California Municipal Finance Authority, Lease Revenue Bonds, Series 2018A, (Orange County Infrastructure Improvement Program – Phase II) in the amount of $198.2 million for 30 years will cost approximately $13.8 million annual base rental payments/debt service, for a total cost of $393 million. The financing allows for an optional redemption after 10 years, and execution of this option will be evaluated during the County's annual Strategic Financial Planning process.

The source of base rental payments/debt service will be the occupant County departments including those identified in the table below. The allocation of base rental payments/debt service, by department, will be based upon square foot usage and is expected to be approximately 51% paid from non-general fund (NGF) sources.

The table below illustrates the anticipated user department rent allocation and general fund (GF) share.

Annual Base Rental Payment/Debt Service	**$13,792,750**

County Department - Occupant	Square Foot	Percent	Base Rent Allocation
Health Care Agency - NGF	76,800	30	$4,166,568
OC Community Resources - NGF	28,560	11	1,549,442
To Be Determined - NGF	15,260	6	827,889
CEO/Risk Management - NGF	8,320	3	451,378
Board of Supervisors - GF	32,036	13	1,738,023
County Counsel - GF	23,140	9	1,255,396
Human Resource Services - GF	19,240	8	1,043,812
County Executive Office - GF	18,460	7	1,001,495
Clerk of the Board - GF	7,280	3	394,956
OIR/Perf Audit/TBD - GF	3,640	1	197,478
Board Meeting Room - GF	21,498	9	1,166,313
Total Allocation	254,234	100.00%	**$13,792,750**
Non-General Fund Allocation	128,940	51	6,995,277
General Fund Allocation	125,294	49	6,797,473
Total Allocation	254,234	100.00%	**$13,792,750**

Numbers may not foot due to rounding. Actual occupancy may change during the programming process.

STAFFING IMPACT:

N/A

ATTACHMENT(S):

Attachment A - Addendum No. 1 to Final EIR No. 626
Attachment B - Final EIR No. 626 March 2017
Attachment C - Civic Center Facilities Strategic Plan April 2017
Attachment D - Civic Center Facilities Strategic Plan Revision No. 1
Attachment E - Ordinance of the Board of Supervisors
Attachment F - Ground Lease Agreement
Attachment G - Facility Lease Agreement
Attachment H - Development Agreement with Exhibits A-T
Attachment I - Capital Facilities Development Corporation Articles of Incorporation
Attachment J - Capital Facilities Development Corporation Bylaws
Attachment K - Loan Agreement
Attachment L - Indenture
Attachment M - Preliminary Official Statement
Attachment N - Appendix A
Attachment O - Continuing Disclosure Certificate
Attachment P - Bond Purchase Agreement
Attachment Q - Public Resources Code Section 21081.6(b)

EXHIBIT 2

Agenda Item

AGENDA STAFF REPORT

ASR Control 17-000365

MEETING DATE:	04/25/17
LEGAL ENTITY TAKING ACTION:	Board of Supervisors
BOARD OF SUPERVISORS DISTRICT(S):	1
SUBMITTING AGENCY/DEPARTMENT:	County Executive Office (Approved)
DEPARTMENT CONTACT PERSON(S):	Scott Mayer (714) 834-3046
	Shane Silsby (714) 667-9700

SUBJECT: Civic Center Facilities Strategic Plan and Building 16

CEO CONCUR	COUNTY COUNSEL REVIEW	CLERK OF THE BOARD
Concur	Approved Resolution(s) and Ordinance(s)	Public Hearing 3 Votes Board Majority

Budgeted: N/A **Current Year Cost:** N/A **Annual Cost:** N/A

Staffing Impact: No **# of Positions:** **Sole Source:** N/A

Current Fiscal Year Revenue: N/A

Funding Source: N/A **County Audit in last 3 years:** No

Prior Board Action: 3/22/2016 #32SE, 6/23/2015 #S77C, 4/23/2013 #37, 8/21/2012 #37

RECOMMENDED ACTION(S):

1. Adopt attached Resolution:
   - Certifying Final Environmental Impact Report No. 626 for the County of Orange Civic Center Facilities Strategic Plan;
   - Adopting Statement of Facts, Findings and Statement of Overriding Considerations for Final Environmental Impact Report No. 626;
   - Adopting Mitigation Monitoring and Reporting Program for Final Environmental Impact Report No. 626, and;
   - Approving the County of Orange Civic Center Facilities Strategic Plan and the construction of Building 16 consistent with the County of Orange Civic Center Facilities Strategic Plan.

2. Find that Final Environmental Impact Report No. 626 reflects the independent judgment of the County of Orange and satisfies the requirements of CEQA for the construction of Building 16 consistent with the County of Orange Civic Center Facilities Strategic Plan and the formation of Capital Facilities Development Corporation.

3. Authorize the Chief Real Estate Officer or designee to execute documents necessary for construction of Building 16, including, but not limited to, lot line adjustments and necessary permits from the City of Santa Ana or the County.

4. Read the title of the Ordinance "An Ordinance of the Board of Supervisors of the County of Orange Authorizing the Execution and Delivery of a Facility Lease, a Ground Lease and Other Documents and Matters Related Thereto."

5. Order further reading of the Ordinance to be waived.

6. Conduct a Public Hearing.

7. Consider the matter.

8. Direct Ordinance to be placed on the agenda of the next regularly scheduled Board of Supervisors meeting for adoption.

9. At the next regularly scheduled meeting, consider the matter, and adopt the Ordinance.

SUMMARY:

Adoption of the Recommended Actions approves the County of Orange Civic Center Facilities Strategic Plan, the construction of a new Building 16 within the Civic Center, the lease and leaseback of the Building 16 property, and establishment of a nonprofit corporation as it relates to the financing of Building 16 and the Civic Center Facilities Strategic Plan.

BACKGROUND INFORMATION:

On August 21, 2012, the Board of Supervisors (Board) selected Griffin Structures Inc. (Griffin) as the potential primary developer of the Building 16 site. On April 23, 2013, the Board adopted an ordinance approving a public/private partnership with Griffin to complete a comprehensive Civic Center Facilities Strategic Plan Study (Civic Center Master Plan) for the Orange County Civic Center area and, specifically, to complete a Building 16 Development Master Plan Study. On June 23, 2015, the Board approved an amendment to the contract with Griffin to further develop and finalize the Civic Center Master Plan Study. On February 24, 2016, the Board received a presentation on the Facilities Strategic Plan and, on March 22, 2016, approved a Program Management and Design Agreement with Griffin for the planning and design phase services for a new Building 16 within the Orange County Civic Center (Civic Center).

The actions presented for consideration at this time would: 1) certify Final Environmental Impact Report No. 626 (FEIR No. 626), which analyzes the potential environmental effects of the Facilities Strategic Plan and of Building 16; 2) approve the Facilities Strategic Plan; 3) implement the public/private partnership with Griffin to develop Building 16 through the approval of the formation of Capital Facilities Development Corporation (Corporation); 4) approve business terms in a Development Agreement between Griffin and the Corporation for the construction of Building 16; and 5) take actions required for public financing.

County of Orange Civic Center Facilities Strategic Plan

The Facilities Strategic Plan involves the +/- 11-acre County "superblock" (bounded by Ross Street, Civic Center Drive, Broadway and Santa Ana Boulevard), as well as County satellite buildings within the vicinity of the Civic Center. Key goals of the Facilities Strategic Plan are to improve the delivery of County services to the community by grouping similar and related services; to improve efficiencies through these

departmental adjacencies; reduce energy costs by capitalizing on the Central Utilities Facility; and to improve space usage which will result in lower long-term operating and maintenance costs for the County. To accomplish these goals, the Facilities Strategic Plan anticipates the renovation of several existing facilities and the replacement of several older facilities with new construction. These activities would result in the replacement of older facilities with 390,000 square feet of newly constructed government office uses within the Facilities Strategic Plan area. The Facilities Strategic Plan also anticipates the sale of several County owned buildings, which would result in a net decrease of 400,000 square feet of older owned properties in the Civic Center. Implementation would occur in four phases over approximately 18 years. Phase 1 activity spans from 2016 to 2021 and includes replacement of the existing Building 16 with new facilities, demolition of Building 11, construction of a County conference and events center and renovation of the H.G. Osborne Building. The complete Facilities Strategic Plan, which contains a total of four possible phases, is attached for the Board's review and approval.

Building 16 Implementation

Building 16 is proposed as a six-story, approximately 251,000-square foot office building located on Ross Street north of Santa Ana Boulevard. The building will include a one-stop public counter and a single story, approximately 6,600-square foot event/conference center (Building 18), which is planned for use by both the County and the public, and will also serve as an Emergency Administration Center when needed to serve the County. With approval of the actions presented, construction is targeted to begin in fall 2017, with completion slated for January 2020. The building will be constructed by Griffin pursuant to a Development Agreement with the Corporation (the formation of which is addressed below), who will lease the property from the County and lease the building back to the County.

Public Financing – Lease Revenue Bonds

The Corporation will be formed as a nonprofit public benefit corporation for the purpose of facilitating financings, acquisitions of property, and other financial and property related transactions, by or for the benefit of the County of Orange. The Corporation is governed by a three member Board of Directors consisting of the County Chief Executive Officer, Chief Real Estate Officer and Director of OC Public Works. Since the County owns the land on which Building 16 will be constructed, the County will enter into a Ground Lease with the Corporation. In order to finance the Building 16 project, the California Municipal Finance Authority (of which the County is a member), will issue tax-exempt bonds, to be designated as the "California Municipal Finance Authority Lease Revenue Bonds, Series 2017A (Orange County Civic Center Infrastructure Improvement Program – Phase I)." The California Municipal Finance Authority will loan the bond proceeds, which will be utilized to construct Building 16, to the Corporation pursuant to a Loan Agreement.

The Corporation will enter into a Facility Lease with the County in which the Corporation will undertake the Building 16 project and lease the new Building 16 to the County. The base rental payments by the County under the Facility Lease will be used to repay the loan to the California Municipal Finance Authority, which pays the debt service on the Bonds to the bank trustee.

The Development Agreement is between Griffin, the developer, and the Corporation. The Corporation will oversee the financing and construction of the Building 16 project.

The estimated par amount of the proposed California Municipal Finance Authority Lease Revenue Bonds, Series 2017A (Orange County Civic Center Infrastructure Improvement Program – Phase I) Bonds (Bonds) is $158.4 million.

Sources and uses of bond proceeds are estimated as follows:

Sources:	Par Amount	$158,380,000
	Premium	19,644,602
	Total Sources:	**$178,024,602**
Uses:	Project Fund	$152,924,256
	Capitalized Interest Fund	23,839,841
	Cost of Bond Issuance	1,255,953
	Contingency	4,552
	Total Uses:	**$178,024,602**

Public Finance staff recommends a 30-year debt service schedule, with an optional redemption provision after 10 years. The true interest cost is estimated to be 4.05%. Estimated annual base rental payments/debt service is $10.8 million, for a total cost of $315.3 million. An estimated $23,839,841 in interest cost will be capitalized through July 2020, six months beyond the expected construction period. Base rental payments will commence once the County takes occupancy of the building and the Certificate of Substantial Completion is accepted. Current year estimated $1.25 million cost of bond issuance will be paid from bond proceeds.

Credit Ratings

Presentations to Standard and Poor's Global Ratings and Fitch Ratings are scheduled for the week of April 17, 2017, with formal ratings to be received prior to issuance in June 2017.

Financing Documents

Following is a description of the financing documents attached.

Ordinance of the Board of Supervisors – Ordinance to be adopted by the Board of Supervisors, which identifies the legal authority for the issuance of bonds, authorizes the maximum amount of bonds to be issued by the authority, approves the Ground Lease, the Facility Lease and Appendix A of the Preliminary Official Statement. Adoption of the Ordinance by the Board of Supervisors will also form the Corporation.

Ground Lease – An agreement between the County of Orange and the Corporation, which sets forth the terms and conditions relating to the lease of the Building 16 site between the County of Orange and the Corporation.

Facility Lease – An agreement between the County of Orange and the Corporation, which sets forth the terms and conditions of the use of certain real property, improvements, and facilities to be to be constructed, acquired, and equipped by the Corporation, including Building 16.

Development Agreement– An agreement between the Corporation and Griffin whereby Griffin is engaged to develop, administer, and manage the design, permitting, and construction of the Building 16 project, including pursuant to a guaranteed maximum construction price, approved construction drawings, and an approved project schedule.

Articles of Incorporation – Document that establishes the Corporation.

Bylaws of the Corporation – Document that describes the purpose and directors of the Corporation and sets forth its governance.

Loan Agreement – An agreement between the California Municipal Finance Authority, as issuer, and the Corporation, which sets forth the general terms and conditions of the loan financing, loan repayment, and construction draws.

Indenture – An agreement between the California Municipal Finance Authority, as issuer, and Trustee (Zions Bank) pursuant to which the bonds will be issued and which sets forth the general terms and conditions and requirements governing the Bonds.

Preliminary Official Statement (POS) – Discloses material information pertaining to the issuance of the Bonds, including purpose, collateralization, repayment process, and financial, economic, and demographic characteristics of the County. The POS provides potential investors an opportunity to review data about the County (Appendix A) to determine the credit quality of the Bonds.

Continuing Disclosure Certificate – Provides documentation to bondholders and credit rating agencies of the County's certification that it will report material events that may affect the rating or payment of the Bonds and contents required in the Continuing Disclosure Annual Report.

Bond Purchase Agreement – An agreement that defines the terms and conditions under which the underwriters will purchase the Bonds. The agreement states the principal amount of the Bonds, the interest rate, and maturity dates.

FINANCIAL IMPACT:

Issuing the California Municipal Finance Authority, Lease Revenue Bonds, Series 2017A, (Orange County Infrastructure Improvement Program – Phase I) in the amount of $158.4 million for 30 years will cost approximately $10.8 million annual base rental payments/debt service, for a total cost of $315.3 million. The financing allows for an optional redemption after 10 years, and execution of this option will be evaluated during the County's annual Strategic Financial Planning process.

The source of base rental payments/debt service will be the occupant County departments: Orange County Public Works, Orange County Waste and Recycling, the Treasurer-Tax Collector, and departments to be determined. The allocation of base rental payments/debt service, by department, will be based upon square foot usage and is expected to be over 65% paid from non-general fund (NGF) sources.

The table below illustrates the anticipated user department rent allocation and general fund (GF) share.

Annual Base Rental Payment/Debt Service	**$10,814,000**

County Department - Occupant	Square Foot	Percent	Base Rent Allocation
OC Public Works – GF Base Budget	50,722	19.96	2,157,934
OC Public Works - NGF	56,183	22.10	2,390,230

Treasurer-Tax Collector - GF	31,840	12.53	1,354,600
OC Waste & Recycling - NGF	18,644	7.33	793,190
CEO-Real Estate - GF	8,944	3.52	380,513
TBD - GF	36,920	14.52	1,570,724
TBD - NGF	30,326	11.93	1,290,189
One Stop Shop/Conference Center - GF	7,720	3.04	328,455
One Stop Shop/Conference Center - NGF	12,885	5.07	548,164
Total Allocation	254,184	100.00%	**$10,814,000**
General Fund Allocation	85,424	33.61	3,634,293
Non-General Fund Allocation/GF Base Budget	168,760	66.39	7,179,707
Total Allocation	254,184	100.00%	**$10,814,000**

STAFFING IMPACT:

N/A

REVIEWING AGENCIES:

OC Public Works

ATTACHMENT(S):

Attachment A - Environmental Impact Report No. 626
Attachment A - Volume II Technical Appendices is on file with the office of the Clerk of the Board.
Attachment B - FEIR/Comments & Responses to Comments
Attachment C - Resolution
Attachment D - Civic Center Facilities Strategic Plan
Attachment E - Ordinance
Attachment F - Ground Lease Agreement
Attachment G - Facility Lease Agreement
Attachment H - Development Agreement (Exhibit E of Facility Lease)
Attachment I - Capital Facilities Development Corporation Articles of Incorporation
Attachment J - Capital Facilities Development Corporation Bylaws
Attachment K - Loan Agreement
Attachment L - Indenture
Attachment M - Preliminary Official Statement
Attachment N - Appendix A
Attachment O - Continuing Disclosure Certificate
Attachment P - Bond Purchase Agreement
Attachment Q - Word Version of Attachment C Resolution

Agenda Item

AGENDA STAFF REPORT

ASR Control 18-000944

MEETING DATE:	09/25/18
LEGAL ENTITY TAKING ACTION:	Board of Supervisors
BOARD OF SUPERVISORS DISTRICT(S):	1
SUBMITTING AGENCY/DEPARTMENT:	OC Public Works (Approved)
DEPARTMENT CONTACT PERSON(S):	Shane Silsby (714) 667-9700
	Thomas (Mat) Miller (714) 834-6019

SUBJECT: Civic Center Facilities Strategic Plan Revision and Building 14

CEO CONCUR	**COUNTY COUNSEL REVIEW**	**CLERK OF THE BOARD**
Concur	Approved Ordinance to Form	Public Hearing 3 Votes Board Majority

Budgeted: N/A **Current Year Cost:** See Financial Impact Section **Annual Cost:** See Financial Impact Section

Staffing Impact: No **# of Positions:** **Sole Source:** N/A

Current Fiscal Year Revenue: N/A

Funding Source: See Financial Impact Section **County Audit in last 3 years:** No

Prior Board Action: 6/26/2018 #75, 4/25/2017 #40, 4/23/2013 #37, 8/21/2012 #37

RECOMMENDED ACTION(S):

1. Find that Final Environmental Impact Report No. 626, previously certified by the Board of Supervisors on April 25, 2017, together with Addendum No. 1 reflect the independent judgment of the County of Orange and satisfy the requirements of CEQA for the County of Orange Civic Center Facilities Strategic Plan Revision No. 1, which is a necessarily included element contemplated as part of the whole of the action.

2. Find that the circumstances of the County of Orange Civic Center Facilities Strategic Plan Revision No. 1 are substantially the same and that Final Environmental Impact Report No. 626 and Addendum No. 1 have adequately addressed the effects of the proposed project. No substantial changes have been made in the project; no substantial changes have occurred in the circumstances under which the project is being undertaken; and no new information of substantial importance to the project, which was not known or could not have been known when the previous Environmental Impact Report No. 626 was certified have become known; therefore no further environmental review is required.

3. All mitigation measures are fully enforceable pursuant to CEQA (Public Resources Code) Section 21081.6(b) and have either been adopted as conditions, incorporated as part of the project design, or included in the procedures of project implementation.

4. Approve the County of Orange Civic Center Facilities Strategic Plan Revision No. 1 and approve the construction of Building 14 consistent with the County of Orange Civic Center Facilities Strategic Plan Revision No. 1.

5. Authorize the Chief Real Estate Officer or designee to execute documents necessary for construction of Building 14, including, but not limited to, metes-and-bounds survey and necessary permits from the City of Santa Ana or the County.

6. Read the title of the Ordinance "An Ordinance of the Board of Supervisors of the County of Orange Authorizing the Execution and Delivery of a Facility Lease, a Ground Lease and Other Documents and Matters Related Thereto".

7. Order further reading of the Ordinance to be waived.

8. Conduct a Public Hearing.

9. Consider the matter.

10. Direct Ordinance to be placed on the agenda of the next regularly scheduled Board of Supervisors meeting for adoption.

11. At the next regularly scheduled meeting, consider the matter and adopt the Ordinance.

SUMMARY:

Adoption of the Recommended Actions will allow for full completion of Civic Center Facilities Strategic Plan Phase 2B and approves the continuance of Phase 2A design services and construction of Building 14, the lease and leaseback of the Building 14 property and reinstitution of a nonprofit corporation as it relates to the financing of Building 14 and the Civic Center Facilities Strategic Plan.

BACKGROUND INFORMATION:

On August 21, 2012, the Board of Supervisors (Board) selected Griffin Structures Inc. (Griffin) as the potential primary developer of the Building 16 and Building 14 sites. On April 23, 2013, the Board approved Ordinance 13-003 which authorized a partnership with Related/Griffin, now organized as Griffin to complete a comprehensive Civic Center Facilities Strategic Plan (Civic Center FSP) and, based upon the recommendations, to develop the Building 16 site, with an option to develop the Building 14 site. The Civic Center FSP includes the construction of a new Building 16 as part of Phase 1 and the construction of a new Building 14 as part of Phase 2. On April 25, 2017, the Board certified the Final Environmental Impact Report No. 626 (Final EIR No. 626) for the Civic Center FSP and approved actions required for public financing of Phase 1B the construction of the new Building 16 and Building 18. The construction of Buildings 16 and 18 are ongoing and currently on schedule. On June 26, 2018, the Board approved an agreement with Griffin for program management and initial design phase services for Phase 2A, which is the planning and design of the new Building 14.

Phase 2B of the Civic Center FSP, as amended, will include the demolition of existing Buildings 11, 12 and 14 of the County Civic Center Superblock and the construction of a new Building 14, which will replace the current County Hall of Administration.

The actions presented for consideration at this time would: (1) adopt Addendum No. 1 to Final EIR No. 626; (2) approve the Civic Center FSP Revision No. 1; and (3) take actions required for the public financing of the new Building 14 by the Corporation and repayment of that financing through a lease agreement with the County.

Revision No.1 County of Orange Civic Center FSP

The approved Civic Center FSP involves the +/- 11-acre County "superblock" (bounded by Ross Street, Civic Center Drive, Broadway and Santa Ana Boulevard), as well as County satellite buildings within the vicinity of the Civic Center. Key goals of the Civic Center FSP are to improve the delivery of County services to the community by grouping similar and related services; to improve efficiencies through these departmental adjacencies; reduce energy costs by capitalizing on the Central Utilities Facility; and to improve space usage which will result in lower long-term operating and maintenance costs for the County. To accomplish these goals, the Civic Center FSP anticipates the renovation of several existing facilities and the replacement of several older facilities with new construction. These activities would result in the replacement of older facilities with approximately 700,000 square feet of newly constructed government office uses within the Civic Center FSP area. The Civic Center FSP also anticipates the sale of several County owned buildings, which would result in a net decrease of 400,000 square feet of older owned properties in the Civic Center. Implementation would occur in four phases over approximately 18 years. Phase 1 activity spans from 2016 to 2020 and includes replacement of the existing Building 16 with new facilities, construction of a County conference and events center Building 18 and renovation of the H.G. Osborne Building. Phase 2 activity spans from 2020 to 2023 and includes the replacement of existing Building 14 with new facilities, demolition of Buildings 10, 11, 12 and 14. Building 10 and 12 sites become interim public use surface parking. Through the planning process for Buildings 14, 16 and 18 and the ongoing construction of Building 16 and 18, certain revision to the Civic Center FSP have become necessary. Those revisions are set forth in the attached Civic Center FSP Revision No. 1 and include a reduction of 36,201 net new building square feet within Phases 1 and 2 of the Civic Center FSP (including new Buildings 14, 16 and 18), total renovation reduction of 43,160 square feet, demolition increase of 38,420 square feet and new construction increase of 2,219 square feet.

Building 14 Implementation

Building 14 is proposed as a six-story, approximately 254,000-square foot office building located on Ross Street north of Santa Ana Boulevard. The building will include a new Board hearing room. With approval of the actions presented, construction is targeted to begin in spring 2020, with completion slated for August 2022 and public use surface parking completion in early 2023. The building will be constructed by Griffin pursuant to a Development Agreement with the Corporation, who will lease the property from the County and lease the building back to the County.

Public Financing – Lease Revenue Bonds

The Corporation was formed as part of the financing and construction of Building 16 and is a nonprofit public benefit corporation for the purpose of facilitating financings, acquisitions of property and other financial and property related transactions, by or for the benefit of the County. The Corporation is governed by a three member Board of Directors consisting of the County Executive Officer, Chief Real Estate Officer and Director of OC Public Works. Since the County owns the land on which Building 14 will be constructed, the County will enter into a Ground Lease with the Corporation. In order to finance the Building 14 project, the California Municipal Finance Authority (of which the County is a member), will issue tax-exempt bonds, to be designated as the "California Municipal Finance Authority Lease

Revenue Bonds, Series 2018A (Orange County Civic Center Infrastructure Improvement Program – Phase II)." The California Municipal Finance Authority will loan the bond proceeds, which will be utilized to construct Building 14, to the Corporation pursuant to a Loan Agreement.

The Corporation will enter into a Facility Lease with the County in which the Corporation will undertake the Building 14 project and lease the new Building 14 to the County. The base rental payments by the County under the Facility Lease will be used to repay the loan to the California Municipal Finance Authority, which pays the debt service on the Bonds to the bank trustee.

The Development Agreement is between Griffin, the developer and the Corporation for the actual construction of the new building. The Corporation will oversee the financing and construction of the Building 14 project.

The estimated par amount of the proposed California Municipal Finance Authority Lease Revenue Bonds, Series 2018A (Orange County Civic Center Infrastructure Improvement Program – Phase II) Bonds (Bonds) is $198.2 million.

Sources and uses of bond proceeds are estimated as follows:

Sources:	Par Amount	$198,220,000
	Premium	$16,529,573
	Investment Earnings-project fund	$12,398,375
	Total Sources:	**$227,147,948**
Uses:	Project Fund	$185,788,613
	Capitalized Interest Fund	$39,570,637
	Cost of Bond Issuance	$1,783,980
	Contingency	$4,718
	Total Uses:	**$227,147,948**

Public Finance staff recommends a 30-year debt service schedule, with an optional redemption provision after 10 years. The true interest cost is estimated to be 4.4%. Estimated annual base rental payments/debt service is $13.8 million, for a total cost of $393 million. An estimated $39.6 million in interest cost will be capitalized through June 1, 2023, six months beyond the expected construction period. Base rental payments will commence once the County takes occupancy of the building and the Certificate of Substantial Completion is accepted. Current year estimated $1.8 million cost of bond issuance will be paid from bond proceeds.

Credit Ratings
Presentations to Standard and Poor's Global Ratings and Fitch Ratings are scheduled for late October 2018, with formal ratings to be received prior to issuance in December 2018.

Financing Documents
Following is a description of the financing documents attached.

Ordinance of the Board of Supervisors – Ordinance to be adopted by the Board, which identifies the legal authority for the issuance of bonds, authorizes the maximum amount of bonds to be issued by the

authority, approves the Ground Lease, the Facility Lease and Appendix A of the Preliminary Official Statement. Adoption of the Ordinance by the Board will also form the Corporation.

Ground Lease – An agreement between the County of Orange and the Corporation, which sets forth the terms and conditions relating to the lease of the Building 14 site between the County of Orange and the Corporation.

Facility Lease – An agreement between the County of Orange and the Corporation, which sets forth the terms and conditions of the use of certain real property, improvements and facilities to be to be constructed, acquired and equipped by the Corporation, including Building 14.

Development Agreement– An agreement between the Corporation and Griffin whereby Griffin is engaged to develop, administer and manage the design, permitting and construction of the Building 14 project, including pursuant to a guaranteed maximum construction price, approved construction drawings and an approved project schedule.

Articles of Incorporation – Document that establishes the Corporation.

Bylaws of the Corporation – Document that describes the purpose and directors of the Corporation and sets forth its governance.

Loan Agreement – An agreement between the California Municipal Finance Authority, as issuer, and the Corporation, which sets forth the general terms and conditions of the loan financing, loan repayment and construction draws.

Indenture – An agreement between the California Municipal Finance Authority, as issuer, and Trustee (Zions Bank) pursuant to which the bonds will be issued and which sets forth the general terms and conditions and requirements governing the Bonds.

Preliminary Official Statement (POS) – Discloses material information pertaining to the issuance of the Bonds, including purpose, collateralization, repayment process, financial, economic and demographic characteristics of the County. The POS provides potential investors an opportunity to review data about the County (Appendix A) to determine the credit quality of the Bonds.

Continuing Disclosure Certificate – Provides documentation to bondholders and credit rating agencies of County certification that it will report material events that may affect the rating or payment of the Bonds and contents required in the Continuing Disclosure Annual Report.

Bond Purchase Agreement – An agreement that defines the terms and conditions under which the underwriters will purchase the Bonds. The agreement states the principal amount of the Bonds, the interest rate and maturity dates.

Compliance with CEQA: The Project is a necessarily included element of the project considered in Final EIR No. 626, which was certified by the Board on April 25, 2017, together with Addendum No. 1, which adequately addressed the effects of the proposed project. No substantial changes have been made in the project, no substantial changes have occurred in the circumstances under which the project is being undertaken and no new information of substantial importance to the project which not know or could not have been known when the Final EIR No. 626 was certified have become known; therefore no further environmental review is required.

FINANCIAL IMPACT:

Issuing the California Municipal Finance Authority, Lease Revenue Bonds, Series 2018A, (Orange County Infrastructure Improvement Program – Phase II) in the amount of $198.2 million for 30 years will cost approximately $13.8 million annual base rental payments/debt service, for a total cost of $393 million. The financing allows for an optional redemption after 10 years, and execution of this option will be evaluated during the County's annual Strategic Financial Planning process.

The source of base rental payments/debt service will be the occupant County departments including those identified in the table below. The allocation of base rental payments/debt service, by department, will be based upon square foot usage and is expected to be approximately 51% paid from non-general fund (NGF) sources.

The table below illustrates the anticipated user department rent allocation and general fund (GF) share.

Annual Base Rental Payment/Debt Service	**$13,792,750**

County Department - Occupant	Square Foot	Percent	Base Rent Allocation
Health Care Agency - NGF	76,800	30	$4,166,568
OC Community Resources - NGF	28,560	11	1,549,442
To Be Determined - NGF	15,260	6	827,889
CEO/Risk Management - NGF	8,320	3	451,378
Board of Supervisors - GF	32,036	13	1,738,023
County Counsel - GF	23,140	9	1,255,396
Human Resource Services - GF	19,240	8	1,043,812
County Executive Office - GF	18,460	7	1,001,495
Clerk of the Board - GF	7,280	3	394,956
OIR/Perf Audit/TBD - GF	3,640	1	197,478
Board Meeting Room - GF	21,498	9	1,166,313
Total Allocation	254,234	100.00%	**$13,792,750**
Non-General Fund Allocation	128,940	51	6,995,277
General Fund Allocation	125,294	49	6,797,473
Total Allocation	254,234	100.00%	**$13,792,750**

Numbers may not foot due to rounding. Actual occupancy may change during the programming process.

STAFFING IMPACT:

N/A

ATTACHMENT(S):

Attachment A - Addendum No. 1 to Final EIR No. 626
Attachment B - Final EIR No. 626 March 2017
Attachment C - Civic Center Facilities Strategic Plan April 2017
Attachment D - Civic Center Facilities Strategic Plan Revision No. 1
Attachment E - Ordinance of the Board of Supervisors
Attachment F - Ground Lease Agreement
Attachment G - Facility Lease Agreement
Attachment H - Development Agreement with Exhibits A-T
Attachment I - Capital Facilities Development Corporation Articles of Incorporation
Attachment J - Capital Facilities Development Corporation Bylaws
Attachment K - Loan Agreement
Attachment L - Indenture
Attachment M - Preliminary Official Statement
Attachment N - Appendix A
Attachment O - Continuing Disclosure Certificate
Attachment P - Bond Purchase Agreement
Attachment Q - Public Resources Code Section 21081.6(b)

EXHIBIT 3

Agenda Item

AGENDA STAFF REPORT

ASR Control 19-001157

MEETING DATE:	11/19/19
LEGAL ENTITY TAKING ACTION:	Board of Supervisors
BOARD OF SUPERVISORS DISTRICT(S):	1
SUBMITTING AGENCY/DEPARTMENT:	County Executive Office (Approved)
DEPARTMENT CONTACT PERSON(S):	Thomas A. Miller (714) 834-6019
	Tim Corbett (714) 834-3046

SUBJECT: Yale Transitional Center Lease

CEO CONCUR	COUNTY COUNSEL REVIEW	CLERK OF THE BOARD
Concur	Approved Agreement(s) and Resolution(s)	Discussion 3 Votes Board Majority

Budgeted: Yes

Current Year Cost: See Financial Impact Section

Annual Cost: See Financial Impact Section

Staffing Impact: No

# of Positions:

Sole Source: N/A

Current Fiscal Year Revenue: N/A

Funding Source: See Financial Impact Section

County Audit in last 3 years: No

Prior Board Action: 11/20/2018 #S41D

RECOMMENDED ACTION(S):

1. Find that the project is categorically exempt from the California Environmental Quality Act (CEQA), Class 32 (In-Fill Development Project) pursuant to CEQA Guidelines, Section 15332.

2. Find that the County may forgo the competitive bidding process for the construction of improvements on County-owned property located at 2229 South Yale Street, Santa Ana for the Yale Transitional Center for individuals experiencing homelessness, because the process would not result in an economic advantage for the County.

3. Adopt the Resolution making certain findings pursuant to Government Code 26227 related to the approval of a Ground Lease with Shelter Providers of Orange County, Inc. dba HomeAid Orange County for construction of improvements on County-owned property located at 2229 South Yale Street, Santa Ana for the Yale Transitional Center for individuals experiencing homelessness.

4. Approve the Cooperation and Implementation Agreement with Shelter Providers of Orange County, Inc. dba HomeAid Orange County outlining conditions for the Ground Lease for construction of improvements on County-owned property located at 2229 South Yale Street, Santa Ana for the Yale Transitional Center for individuals experiencing homelessness, and authorize the Chief Real Estate Officer or designee to execute the agreement in substantially the form attached, with approval of

County Counsel.

5. Approve the Ground Lease with a two-year term, with a one-year option to extend, with Shelter Providers of Orange County, Inc. dba HomeAid Orange County for the construction of improvements on County-owned property located at 2229 South Yale Street, Santa Ana for the Yale Transitional Center for individuals experiencing homelessness, and authorize the Chief Real Estate Officer or designee to execute the Ground Lease in substantially the form attached, with approval of County Counsel.

6. Direct Auditor-Controller, upon notification from Chief Real Estate Officer, or designee, to issue payments to Shelter Providers of Orange County, Inc. dba HomeAid Orange County not to exceed the total amount of $25,275,703 for construction of improvements on County-owned property located at 2229 South Yale Street, Santa Ana for the Yale Transitional Center for individuals experiencing homelessness, in two equal disbursements of $12,637,851 at execution of the Ground Lease and at 50 percent completion of construction, upon notification by Chief Real Estate Officer, or designee.

7. Authorize the Chief Real Estate Officer or designee to sign any and all necessary documents related to the construction of improvements on County-owned property located at 2229 South Yale Street, Santa Ana for the Yale Transitional Center for individuals experiencing homelessness, as set forth in the Ground Lease, including minor modifications and amendments to the Ground Lease that do not materially alter the terms or financial obligations to the County, and perform all activities specified under the terms of the Ground Lease and Cooperation and Implementation Agreement.

SUMMARY:

Approval of the Cooperation and Implementation Agreement and Ground Lease with Shelter Providers of Orange County, Inc. dba HomeAid Orange County will allow for the construction of improvements on County-owned property located at 2229 South Yale Street, Santa Ana for the Yale Transitional Center for individuals experiencing homelessness.

BACKGROUND INFORMATION:

On October 25, 2018, the County received a letter from the City of Santa Ana (City) recommending a parcel located at 2229 S. Yale Street, Santa Ana (Property) as a viable site for a full-service shelter (Attachment F) and a replacement for the Courtyard Transitional Center (Courtyard) facility in Santa Ana. The Courtyard facility will cease to operate as the Yale Transitional Center becomes operational. The County and the City previously had negotiated and entered into a Memorandum of Understanding related to the relocation of the Courtyard. This Memorandum of Understanding has been terminated at the request of the City. CEO Real Estate coordinated a collective review of the property with County stakeholder agencies and received a similar recommendation. On November 20, 2018, the Board authorized the Chief Real Estate Officer to execute a Purchase and Sale Agreement with Omega Engineering, Inc. for the purchase of the Property for $12.25 million. The County closed escrow on the Property on January 11, 2019.

The Yale Transitional Center will shelter up to 425 individuals experiencing homelessness from the Central Service Planning Area. Families with minor children will not be served at this location. The proposed renovation project to permit the operation of the Property as a transitional center will include restrooms, showers and dormitory-style sleeping areas for men, women and couples. The second floor will consist of a separate dorm for women, couples and transitional living spaces. Additionally, the renovated Yale Transitional Center will have 24 hour, 7-days per week security, an intake area, full commercial kitchen, dining area, laundry facility, administrative and supportive services offices and storage. To permit the operation of a residential sheltering program on site, all of the major building systems, including plumbing, electrical, HVAC and fire/life safety systems, must be renovated and upgraded. Exterior upgrades include site security fencing, ADA compliant parking, an area for the mobile medical clinic, outdoor dining patio area and patios adjacent to the building dormitories, improved natural lighting, improved fresh air ventilation, fence screening, seating areas and landscaping and outdoor spaces to provide an area for individuals and their service animals, companion animals and/or pets. Parking areas will be for staff, program residents, and mobile medical and support services vehicles. Site plans for the Yale Transitional Center are included as Attachment I.

As a County-owned property, the Yale Transitional Center is under the jurisdiction of the County and is not subject to the development and operational standards for shelters in the City. Further, pursuant to County Zoning Code Section 7-9-20(i) (Attachment K), land owned in fee by the County is not subject to County land use regulations. Therefore, the site is available for the County's desired homeless transitional center use regardless of the land use designation and zoning, including development and operational standards. Nevertheless, according to the City-adopted, land use regulations, the site is zoned Light Industrial (M1) and its General Plan land use designation is Industrial. Emergency shelters and transitional centers for persons experiencing homelessness are permitted uses on any parcels within the M1 zone. Additionally, the Property is within the City's SB-2 zone.

Shelter Providers of Orange County, Inc. dba HomeAid Orange County (HomeAid) is a leading non-profit housing developer that works as a liaison between service providers, community volunteers, builders and specialty contractors to build and renovate multi-unit housing developments including emergency shelters, interim/bridge housing and permanent supportive housing for families and individuals experiencing homelessness throughout the United States. To date, the organization has completed 55 developments with over 20 non-profit homeless services provider partners that serve victims of domestic violence, pregnant women, unaccompanied minors, adults living with HIV/AIDS and families. HomeAid has proposed collaborating with the County and general contractor, C.W. Driver, to construct the improvements necessary for the Property to be used as a transitional center for individuals experiencing homelessness. The HomeAid offer letter to the County is included as Attachment G.

Open House for the Yale Transitional Center

On October 23, 2019, the County hosted an open house in partnership with Supervisor Do, First District, to discuss the Yale Transitional Center and to solicit input from the public. The open house provided attendees an opportunity to speak one-on-one with County staff at three separate stations to learn about the building design and features, security and good neighbor plan, and the operational plan and wraparound services at the Yale Transitional Center.

Management and Operations Plan

The Yale Transitional Center is intended to provide shelter, meals, sanitary facilities and access to case management, employment and housing assistance, healthcare, mental health services and substance abuse treatment among other supportive services and assistance to individuals experiencing homelessness. The program will serve up to 425 individuals experiencing homelessness currently accessing shelter and supportive services at the Courtyard Transitional Center in Santa Ana. Providing emergency shelter and

access to wrap around supportive services will assist individuals experiencing homelessness in the Central Service Planning Area in accessing the appropriate resources to improve their overall health and stability. Establishing the Yale Transitional Center will meet a critical need for individuals experiencing homelessness as well as the broader community, while also addressing a pressing social issue that is deeply affecting local businesses and neighborhoods. The overall purpose of the program is to connect individuals experiencing homelessness to supportive services and to achieve permanent housing and self-sufficiency.

The Management and Operations Plan (MOPS) for the Yale Transitional Center will identify core emergency shelter services, establish policies and procedures and promote the use of best practices and evidenced-based approaches to maintain a safe and healthy environment for those who access the shelter resources and the community at large. A summary of the MOPS is included as **Attachment D**. The full version of the MOPS will be presented to the Board for approval along with the Yale Transition Center operator agreement.

Construction Costs and Schedule

The HomeAid proposal offers a project cost at $25,275,703 with a 12-month construction period. Conversely, the project engineer estimate of cost is $29,234,623 with a 21-month period for bid and construction. Comparatively, the HomeAid offer avoids$3,958,920 in direct construction costs and delivers the project nine months in advance of the County's traditional public solicitation and design build schedule. The reduction in overall schedule carries a subsequent value in reduced cost of funding at $1,644,447 for the nine-month term assuming a 7.5 percent escalation. Through the effective use of HomeAid as a non-profit partner, the County will realize an overall cost avoidance of $5,603,367 and save nine months in completing this critical project. Additionally, HomeAid plans to leverage community partners to solicit in-kind donations as well as the donation of materials. The Cooperation and Implementation Agreement (**Attachment C**) with HomeAid outlines the partnership between the County, HomeAid and C.W. Driver that will set the stage for the Yale Transitional Center. The agreement also provides for the efforts that HomeAid plans to make to obtain donations of in-kind labor and materials or cash donations for construction and operations, as well as for the indemnification of HomeAid by the County for the County's approval of the agreements and the County permitted use of the property.

Under normal circumstances, the County would follow the public works competitive bidding processes found in the Public Contract Code when procuring construction services. Generally, competitive bidding is mandatory when required by statute. The purpose of the public bidding statutes are to "guard against favoritism, improvidence, extravagance, fraud and corruption; to prevent the waste of public funds and to obtain the best economic result for the public." *Graydon v. Pasadena Redevelopment Agency,* 104 Cal.App.3d 631, 636 (1980). "One exception is where the nature of the subject of the contract is such that competitive proposals would be unavailing or would not produce an advantage, and the advertisement for competitive bid would thus be undesirable, impractical, or impossible." *Id.* Here the proposed construction for the facility will be done pursuant to the attached Ground Lease (Lease) with HomeAid, a nonprofit whose purpose is facilitating the construction of this type of facility. HomeAid is able to leverage their status to obtain various services at lower cost or by donation. Because of this and the participation of HomeAid, the cost avoidance to the County on the total design and construction cost will be in excess of $5.6 million. Thus, the competitive bidding of this project will not result in any advantage to the County or the public. Additionally, as mentioned previously, HomeAid will work during the Lease term to further leverage donations and in-kind services to achieve further cost avoidance.

Project Funding

Upon execution of the Lease, the County will fund $12,637,851 as the initial funding for the completion of the Yale Transitional Center. Upon completion of 50 percent of the Yale Transitional Center, as

evidenced by a written verification by the Project's architect and verified by the County, the County will fund the additional $12,637,851 to complete the County's full financial contribution. The County's financial contribution will be applied by HomeAid only towards the Yale Transitional Center. If additional cost avoidance is realized during the Lease term, the funds will be applied towards furniture, fixtures and equipment for the operation of the Yale Transitional Center. If any funds remain at the end of the Lease term, the funds will be returned to the County.

Ground Lease

CEO Real Estate has worked closely with HomeAid to finalize the terms of the Lease. Per the terms of the Lease (Attachment B), the County would lease the Property to HomeAid for the purposes of entitling, permitting and constructing the Yale Transitional Center. The Lease term is 24 months or upon receipt of Certificate of Occupancy. One option to extend the term for one additional 12-month period. The annual rent will be $1 which takes into consideration the public benefit afforded by the Project and HomeAid's construction of the Yale Transitional Center. The findings in the attached resolution, pursuant to Government Code Section 26227 (Attachment J), permit the approval of the Lease with the reduced annual rent and allows the Board to dedicate County resources to the support of HomeAid and the Yale Transitional Center. The resolution also includes the project as a program under the County Sponsorship Program Marketing Plan to permit the pursuit of marketing, sponsorship or fundraising partnerships to further support the Yale Transitional Center.

During the Lease term, construction and operating costs and any possessory interest taxes will be paid by HomeAid. The County shall be responsible for the cost of the utilities for the Property, including any and all applicable taxes, assessments or similar impositions related to the utilities.

CEQA COMPLIANCE

The proposed Project is Categorically Exempt (Class 32) from the provisions of CEQA pursuant to Section 15332, because it involves an infill development project located within city limits, on a site of less than 5 acres that is substantially surrounded by urban uses and can be adequately served by all required utilities and public services. The Project is consistent with all applicable General Plan and zoning regulations and would not result in any significant effects relating to traffic, noise, air quality or water. In addition, the project site has no value as habitat for endangered, rare or threatened species.

FINANCIAL IMPACT:

Total Project Cost for the County: $25,275,703

Appropriations for the initial funding of $12,637,851 are included in Budget Control 036 FY 2019-20 Budget. FY 2019-20 cost for this project will be funded by $2.5 million one-time revenue from Single Family Housing Fund 15B, $5.9 million revenue from California Homeless Housing, Assistance and Prevention Program (HHAP), and the County General Fund. Appropriations for the remaining $12,637,851 million will be requested and included as an Expand Augmentation for the FY 2020-21 Budget, which may receive some offsetting revenue from HHAP and other funding sources.

Yale Transitional Center Project Funding:

Amount ($)	**Funding Source**
$ 2,500,000	Single Family Housing Fund 15B
$ 5,900,000	HHAP
$ 4,237,851	County General Fund
$12,637,851	**FY 2019-20 Funding**

$12,637,851	**FY 2020-21 Expand Augmentation 100-036***
$25,275,702	**Total Yale Transitional Center Project Cost**

*May receive some offsetting revenue from HHAP or other funding sources.

STAFFING IMPACT:

N/A

REVIEWING AGENCIES:

OC Community Resources
Health Care Agency

ATTACHMENT(S):

Attachment A - Location Map and Aerial View
Attachment B - Ground Lease
Attachment C - Cooperation and Implementation Agreement
Attachment D- Summary of the Management and Operations Plan
Attachment E - Yale Board Resolution
Attachment F - City of Santa Ana Yale Recommendation Letter
Attachment G - HomeAid Offer Letter
Attachment H - County A&E Estimation of Project Schedule and Cost
Attachment I - Site Plans
Attachment J - Government Code 26227
Attachment K - County Zoning Code Section 7-9-20(i)

DECLARATION OF SARAH CHIANG AND EXHIBITS THERETO

DECLARATION OF SARAH CHIANG

I, SARAH CHIANG, hereby state and declare as follows:

1. I make this declaration based upon my own personal knowledge, except for matters set forth herein on information and belief, and as to those matters I believe them to be true, and if called upon to testify, I could and would competently testify to the matters set forth herein under oath.

2. I am an Environmental Resources Specialist working with the North Orange County Stormwater group at the OC Environmental Resources division of the OC Public Works Department ("OC Public Works"). In that capacity, I work with permittees under the current Municipal Separate Storm Sewer System ("MS4") permit, Order No. R8-2009-0030 (the "2009 Permit") on a variety of issues, including the coordination of filings required to be made under the 2009 Permit to the California Regional Water Quality Control Board, Santa Ana Region ("Santa Ana Water Board").

3. As part of my duties, I am required to be familiar with the content of filings required to be made by permittees under the 2009 Permit and how copies of those filings are kept in the ordinary course of business at OC Public Works.

4. One requirement of the 2009 Permit is that permittees annually submit a report, referred to as a "Program Effectiveness Assessment" ("PEA"), to the Santa Ana Water Board's Executive Officer. These PEAS, in the form of compact discs ("CDs") are delivered to OC Public Works by the permittees. The County maintains copies of permittee PEAs in its files and records in the form of compact discs ("CDs").

5. OC Public Works hand-delivers the CDs containing permittees' PEAs to the Santa Ana Water Board office, accompanied by a "wet-ink" copy of a Signed Certified

Statement which is to accompany each PEA. A true and correct copy of an example of such a Statement is attached as Exhibit 1 to this Declaration.

6. One section of the PEA, Section C-2.4, is a "Fiscal Analysis." In that section, permittees "depict all NPDES compliance related costs" for the city. Also in this section of the PEA, permittees are required to set forth annual funding sources, divided into various categories, including "General Fund" and "Gas Tax," for these costs.

7. Attached as Exhibits 2-6 to my Declaration are true and correct copies of excerpts of PEAs containing Section C-2.4, Fiscal Analysis, that were retrieved by me from CDs in the possession of OC Public Works covering various fiscal years between 2009-10 and 2020-21 for the Cities of Costa Mesa (Exhibit 2), Irvine (Exhibit 3), Lake Forest (Exhibit 4), Seal Beach (Exhibit 5) and Villa Park (Exhibit 6).

8. In addition, from my review of PEAs filed by other permittees, I am familiar with reports made by other permittees regarding the sources of funding used by them for 2009 Permit activities, including the City of Cypress. The PEAs filed by the City of Cypress state that the city used general funds for 100 percent of funding for permit obligations.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed October 21, 2022 at Orange, California.

Sarah Chiang

EXHIBIT 1

City of Seal Beach

CITY HALL • 211 EIGHTH STREET
SEAL BEACH, CALIFORNIA 90740
(562) 431-2527 • www.ci.seal-beach.ca.us

Program Effectiveness Assessment 2012-2013
Certified Statement

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

David Spitz, P.E.
Associate Engineer
November 13, 2013

EXHIBIT 2

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☐
Trash & Debris	☐
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒
Ad Hoc Annual Report	☐
Permittee Advisory Group (PAG) for the Development of the Model WQMP	☒

C-2.3 City Internal Coordination (LIP Section A-2.2.3)

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2

C-2.4 Fiscal Analysis (LIP Section A-2.2.5)

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Costa Mesa. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	2009-10 Expenditures	2010-11 Expenditures	2011-12 Projected Costs
Totals	$0	$65,700	$260,000

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	2009-10 Expenditures	2010-11 Expenditures	2011-12 Projected Costs
Totals	$2,025,303	$1,441,942	$1,906,523

FUNDING SOURCES

LIP Funding Sources	FY 2009-10 Funding Sources	FY 2010-11 Funding Sources	FY 2011-12 Projected Funding Sources
General Fund	100%	100%	100%
Utility Tax/Charges	0%	0%	0%
Separate Utility Billing Item	0%	0%	0%
Gas Tax	0%	0%	0%
Special District Fund	0%	0%	0%
- Sanitation Fee	0%	0%	0%
- Benefit Assessment	0%	0%	0%
- Fleet Maintenance Fund	0%	0%	0%
- Community Services Fund	0%	0%	0%
- Water Fund	0%	0%	0%
- Sewer & Storm Drain Maintenance Fee	0%	0%	0%
- Other	0%	0%	0%

C-2.5 Program Management Modifications

The modifications that will be made to the Plan Management section of the City's LIP include the following: During the 2010-11 fiscal year, the entire LIP document was updated to reflect changes in the organization along with new permit requirements.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☐
Trash & Debris	☐
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒

C-2.3 City Internal Coordination

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2

C-2.4 Fiscal Analysis

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Costa Mesa. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	2010-11 Expenditures	2011-12 Expenditures	2012-13 Projected Costs
Totals		$176,500	$180,000

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	2010-11 Expenditures	2011-12 Expenditures	2012-13 Projected Costs
Totals		$1,841,839	$1,887,696

FUNDING SOURCES

LIP Funding Sources	FY 10-11 Funding Sources	FY 2011-12 Funding Sources	FY 2012-13 Projected Funding Sources
General Fund	100%	100%	100%
Utility Tax/Charges			
Separate Utility Billing Item			
Gas Tax			
Special District Fund			
- Sanitation Fee			
- Benefit Assessment			
- Fleet Maintenance Fund			
- Community Services Fund			
- Water Fund			
- Sewer & Storm Drain Maintenance Fee			
- Other			

C-2.5 Program Management Modifications

The modifications that will be made to the Plan Management section of the City's LIP include the following: No modifications have been made to this section during this reporting period.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☐
Trash & Debris	☐
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒

C-2.3 City Internal Coordination

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2.

C-2.4 Fiscal Analysis

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Costa Mesa. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	2011-12 Expenditures	2012-13 Expenditures	2013-14 Projected Costs
Public Projects - BMPs	$176,500	$100,000	$100,000
Construction BMPs for Public Construction Projects	$50,000	$50,000	$50,000

Other Capital Projects / Major Equipment Purchases	0	0	0
Totals	$226,500	$150,000	$150,000

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	2011-12 Expenditures	2012-13 Expenditures	2013-14 Projected Costs
Supportive of Program Administration (LIP Section 2.0)	$143,392	$124,021	$96,452
Municipal Activities (LIP Section 5.0) Trash & Debris Control (formerly "Litter Control")	$134,503	$134,503	$134,503
Municipal Activities (LIP Section 5.0) Drainage Facility Maintenance	$174,846	$96,982	$121,788
Municipal Activities (LIP Section 5.0) Street Sweeping	$491,562	$566,507	$590,369
Municipal Activities (LIP Section 5.0) Environmental Performance (BMP Implementation)	$9,270	$10,580	$7,134
Municipal Activities (LIP Section 5.0) Pesticide & Fertilizer Management	$115,721	$128,733	$134,280
Public Information (LIP Section 6.0) Nonpoint Source Pollution Awareness	$13,500	$13,500	$13,500
Public Information (LIP Section 6.0) Household Hazardous Waste Collection	$0.00	$0.00	$0.00
Requiring New Development BMPs (Supportive of Planning, etc) (LIP Section 7.0)	$135,327	$121,300	$122,916
Requiring Construction BMPs (Supportive of Plan Check & Inspection) (LIP Section 8.0)	$126,420	$124,014	$124,401
Existing Development (LIP Section 9.0) Industrial/Comm./HOA Inspections	$57,468	$58,240	$47,901
Illicit Connections/Discharge Ident. & Elimination (LIP Section10.0) Investigations	$168,237	$213,073	$181,064

Agency Contribution to Regional Program	$117,863	$104,789	$134,000
Other - Household Hazardous Waste	$0.00	$0.00	$0.00
Other	$0.00	$0.00	$0.00
Totals	$1,688,109.00	$1,696,242.00	$1,708,308.00

FUNDING SOURCES

LIP Funding Sources	2011-12 Funding Sources	2012-13 Funding Sources	2013-14 Projected Funding Sources
General Fund	100%	100%	100%
Utility Tax/Charges			
Separate Utility Billing Item			
Gas Tax			
Special District Fund			
- Sanitation Fee			
- Benefit Assessment			
- Fleet Maintenance Fund			
- Community Services Fund			
- Water Fund			
- Sewer & Storm Drain Maintenance Fee			
Other:			

C-2.5 Program Management Modifications

The modifications that will be made to the Plan Management section of the City's LIP include the following: No modifications have been made to this section during this reporting period.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☒
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒

C-2.3 City Internal Coordination

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2.

C-2.4 Fiscal Analysis

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Costa Mesa. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	2012-13 Expenditures	2013-14 Expenditures	2014-15 Projected Costs
Public Projects - BMPs	$50,000	$50,000	$50,000
Construction BMPs for Public Construction Projects	$0	$0	$0

Other Capital Projects / Major Equipment Purchases	$100,000	0	$100,000
Totals	$150,000	$50,000	$150,000

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	2012-13 Expenditures	2013-14 Expenditures	2013-14 Projected Costs
Supportive of Program Administration (LIP Section 2.0)	$124,021	$99,216	$111,618
Municipal Activities (LIP Section 5.0) Trash & Debris Control (formerly "Litter Control")	$134,503	$147,000	$150,000
Municipal Activities (LIP Section 5.0) Drainage Facility Maintenance	$96,982	$100,194	$81,971
Municipal Activities (LIP Section 5.0) Street Sweeping	$566,507	$570,178	$462,469
Municipal Activities (LIP Section 5.0) Environmental Performance (BMP Implementation)	$10,580	$8,464	$9,522
Municipal Activities (LIP Section 5.0) Pesticide & Fertilizer Management	$128,733	$7,000	$7,500
Public Information (LIP Section 6.0) Nonpoint Source Pollution Awareness	$13,500	$8,100	$9,450
Public Information (LIP Section 6.0) Household Hazardous Waste Collection	$0.00	$0.00	$0.00
Requiring New Development BMPs (Supportive of Planning, etc) (LIP Section 7.0)	$121,300	$97,040	$109,170
Requiring Construction BMPs (Supportive of Plan Check & Inspection) (LIP Section 8.0)	$124,014	$99,211	$124,401
Existing Development (LIP Section 9.0) Industrial/Comm./HOA Inspections	$58,240	$46,592	$52,416
Illicit Connections/Discharge Ident. & Elimination (LIP Section10.0) Investigations	$213,073	$170,458	$191,765

Agency Contribution to Regional Program	$104,789	$94,310	$99,550
Other - Household Hazardous Waste	$0.00	$0.00	$0.00
Other	$0.00	$0.00	$0.00
Totals	$1,696,242.00	$1,453,587.00	$1,297,043.00

FUNDING SOURCES

LIP Funding Sources	2012-13 Funding Sources	2013-14 Funding Sources	2014-15 Projected Funding Sources
General Fund	100%	100%	100%
Utility Tax/Charges			
Separate Utility Billing Item			
Gas Tax			
Special District Fund			
- Sanitation Fee			
- Benefit Assessment			
- Fleet Maintenance Fund			
- Community Services Fund			
- Water Fund			
- Sewer & Storm Drain Maintenance Fee			
Other:			

C-2.5 Program Management Modifications

The modifications that will be made to the Plan Management section of the City's LIP include the following: No modifications have been made to this section during this reporting period.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☒
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒

C-2.3 City Internal Coordination

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2.

C-2.4 Fiscal Analysis

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Costa Mesa. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	2013-14 Expenditures	2014-15 Expenditures	2015-16 Projected Costs
Public Projects - BMPs	$50,000	$130,000	$50,000
Construction BMPs for Public Construction Projects	$50,000	$57,050	$60,986

Other Capital Projects / Major Equipment Purchases	$100,000	$100,000	$100,000
Totals	$150,000	$287,050	$210,096

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	2013-14 Expenditures	2014-15 Expenditures	2015-16 Projected Costs
Supportive of Program Administration (LIP Section 2.0)	$99,216	$104,177	$109,386
Municipal Activities (LIP Section 5.0) Trash & Debris Control (formerly "Litter Control")	$147,000	$143,794	$111,208
Municipal Activities (LIP Section 5.0) Drainage Facility Maintenance	$100,194	$81,971	$129,590
Municipal Activities (LIP Section 5.0) Street Sweeping	$570,178	$462,469	$771,562
Municipal Activities (LIP Section 5.0) Environmental Performance (BMP Implementation)	$8,464	$8,887	$10,665
Municipal Activities (LIP Section 5.0) Pesticide & Fertilizer Management	$7,000	$7,000	$7,000
Public Information (LIP Section 6.0) Nonpoint Source Pollution Awareness	$13,500	$13,500	$13,500
Public Information (LIP Section 6.0) Household Hazardous Waste Collection	$0.00	$0.00	$0.00
Requiring New Development BMPs (Supportive of Planning, etc) (LIP Section 7.0)	$121,300	$127,365	$133,733
Requiring Construction BMPs (Supportive of Plan Check & Inspection) (LIP Section 8.0)	$124,014	$130,215	$136,725
Existing Development (LIP Section 9.0) Industrial/Comm./HOA Inspections	$46,592	$48,922	$51,368
Illicit Connections/Discharge Ident. & Elimination (LIP Section10.0) Investigations	$170,458	$178,981	$187,930

Agency Contribution to Regional Program	$104,789	$104,789	$134,000
Other - Household Hazardous Waste	$0.00	$0.00	$0.00
Other	$0.00	$0.00	$0.00
Totals	$1,696,242	$1,441,808	$1,814,249

FUNDING SOURCES

LIP Funding Sources	2013-14 Funding Sources	2014-15 Funding Sources	2015-16 Projected Funding Sources
General Fund	100%	100%	100%
Utility Tax/Charges			
Separate Utility Billing Item			
Gas Tax			
Special District Fund			
- Sanitation Fee			
- Benefit Assessment			
- Fleet Maintenance Fund			
- Community Services Fund			
- Water Fund			
- Sewer & Storm Drain Maintenance Fee			
Other: Air Quality Improvement Fund			
Other: Measure M2			
Other			

C-2.5 Program Management Modifications

The modifications that will be made to the Program Management section of the City's LIP include the following: the City has hired one full-time staff member that will share NPDES program coordination responsibilities with existing staff members of the City. The new staff member will assist with preparation of the annual report, conduct inspections of construction projects within the City, review project plans and WQMPs, and participate in meetings and other events pertaining to stormwater quality and management on behalf of the City.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☒
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒

C-2.3 City Internal Coordination

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2.

C-2.4 Fiscal Analysis

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Costa Mesa. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	2014-15 Expenditures	2015-16 Expenditures	2016-17 Projected Costs
Public Projects - BMPs	$130,000	$50,000	$50,000
Construction BMPs for Public Construction Projects	$57,050	$74,110	$41,350

Other Capital Projects / Major Equipment Purchases	$100,000	$100,000	$100,000
Totals	$287,050	$224,110	$191,350

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	2014-15 Expenditures	2015-16 Expenditures	2016-17 Projected Costs
Supportive of Program Administration (LIP Section 2.0)	$104,177	$490,411	$341,762
Municipal Activities (LIP Section 5.0) Trash & Debris Control (formerly "Litter Control")	$143,794	$122,200	$150,100
Municipal Activities (LIP Section 5.0) Drainage Facility Maintenance	$81,971	$129,590	$199,973
Municipal Activities (LIP Section 5.0) Street Sweeping	$462,469	$699,600	$699,600
Municipal Activities (LIP Section 5.0) Environmental Performance (BMP Implementation)	$8,887	$9,331.35	$9,797.92
Municipal Activities (LIP Section 5.0) Pesticide & Fertilizer Management	$7,000	$7,000	$7,000
Public Information (LIP Section 6.0) Nonpoint Source Pollution Awareness	$13,500	$13,500	$13,500
Public Information (LIP Section 6.0) Household Hazardous Waste Collection	$0.00	$0.00	$0.00
Requiring New Development BMPs (Supportive of Planning, etc) (LIP Section 7.0)	$127,365	$133,733	$140,420
Requiring Construction BMPs (Supportive of Plan Check & Inspection) (LIP Section 8.0)	$130,215	$136,726	$143,562
Existing Development (LIP Section 9.0) Industrial/Comm./HOA Inspections	$48,922	$19,719	$20,000
Illicit Connections/Discharge Ident. & Elimination (LIP Section10.0) Investigations	$178,981	$187,930	$197,327

Agency Contribution to Regional Program	$104,789	$137,447	$155,590
Other - Household Hazardous Waste	$0.00	$0.00	$0.00
Other	$0.00	$0.00	$0.00
Totals	$1,412,070	$2,087,188	$2,078,632

FUNDING SOURCES

LIP Funding Sources	2014-15 Funding Sources	2015-16 Funding Sources	2016-17 Projected Funding Sources
General Fund	100%	100%	100%
Utility Tax/Charges			
Separate Utility Billing Item			
Gas Tax			
Special District Fund			
- Sanitation Fee			
- Benefit Assessment			
- Fleet Maintenance Fund			
- Community Services Fund			
- Water Fund			
- Sewer & Storm Drain Maintenance Fee			
Other: Air Quality Improvement Fund			
Other: Measure M2			
Other			

C-2.5 Program Management Modifications

The modifications that will be made to the Program Management section of the City's LIP include the following: the City plans to hire one full-time staff member that will share half of the NPDES program coordination responsibilities with existing staff members of the City. The new staff member will assist with preparation of the annual report, conduct inspections of construction projects within the City, respond to water quality incidents and carry out enforcement, review project plans and WQMPs, and participate in meetings and other events pertaining to stormwater quality and management on behalf of the City.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☒
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒

C-2.3 City Internal Coordination

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2.

C-2.4 Fiscal Analysis

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Costa Mesa. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	2016-17 Expenditures	2017-18 Expenditures	2018-19 Projected Costs
Public Projects - BMPs	$50,000	$650,000	$50,000

Construction BMPs for Public Construction Projects	$51,835	$51,001	$59,340
Other Capital Projects / Major Equipment Purchases	$67,000	$300,000	$100,000
Totals	$168,835	$1,001,001	$209,340

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	2016-17 Expenditures	2017-18 Expenditures	2018-19 Projected Costs
Supportive of Program Administration (LIP Section 2.0)	$96,162	$160,099	$282,798
Municipal Activities (LIP Section 5.0) Trash & Debris Control (formerly "Litter Control")	$122,200	$108,112	$120,000
Municipal Activities (LIP Section 5.0) Drainage Facility Maintenance	$190,154	$191,620	$199,821
Municipal Activities (LIP Section 5.0) Street Sweeping	$757,460	$801,934	$821,823
Municipal Activities (LIP Section 5.0) Environmental Performance (BMP Implementation)	$10,000	$54,430	$49,830
Municipal Activities (LIP Section 5.0) Pesticide & Fertilizer Management	$75,000	$75,000	$75,000
Public Information (LIP Section 6.0) Nonpoint Source Pollution Awareness	$13,500	$13,500	$13,500
Public Information (LIP Section 6.0) Household Hazardous Waste Collection	$0.00	$0.00	$0.00
Requiring New Development BMPs (Supportive of Planning, etc) (LIP Section 7.0)	$6,334	$19,035	$64,779
Requiring Construction BMPs (Supportive of Plan Check & Inspection) (LIP Section 8.0)	$97,879	$61,230	$66,234
Existing Development (LIP Section 9.0) Industrial/Comm./HOA Inspections	$34,405	$34,405	$35,000

Illicit Connections/Discharge Ident. & Elimination (LIP Section10.0) Investigations	$3,483	$24,015	$42,420
Agency Contribution to Regional Program	$120,464	$147,985	$154,811
Other - Household Hazardous Waste	$0.00	$0.00	$0.00
Other	$0.00	$0.00	$0.00
Totals	$	$	$

FUNDING SOURCES

LIP Funding Sources	2016-17 Funding Sources	2017-18 Funding Sources	2018-19 Projected Funding Sources
General Fund	100%	100%	100%
Utility Tax/Charges			
Separate Utility Billing Item			
Gas Tax			
Special District Fund			
- Sanitation Fee			
- Benefit Assessment			
- Fleet Maintenance Fund			
- Community Services Fund			
- Water Fund			
- Sewer & Storm Drain Maintenance Fee			
Other: Air Quality Improvement Fund			
Other: Measure M2			
Other			

C-2.5 Program Management Modifications

The modifications that will be made to the Program Management section of the City's LIP include the following: no modifications are planned for the 18-19 reporting year.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☒
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒

C-2.3 City Internal Coordination

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2.

C-2.4 Fiscal Analysis

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Costa Mesa. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	2017-18 Expenditures	2018-19 Expenditures	2019-20 Projected Costs
Public Projects - BMPs	$650,000	$50,000	$50,000

Construction BMPs for Public Construction Projects	$51,001	$52,021	$53,061
Other Capital Projects / Major Equipment Purchases	$30,000	$300,000	$100,000
Totals	$731,001	$402,021	$203,061

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	2017-18 Expenditures	2018-19 Expenditures	2019-20 Projected Costs
Supportive of Program Administration (LIP Section 2.0)	$26,474	$282,798	$96,490
Municipal Activities (LIP Section 5.0) Trash & Debris Control (formerly "Litter Control")	$108,112	$115,782	$120,000
Municipal Activities (LIP Section 5.0) Drainage Facility Maintenance	$170,466	$171,925	$267,712
Municipal Activities (LIP Section 5.0) Street Sweeping	$759,986	$821,823	$792,212
Municipal Activities (LIP Section 5.0) Environmental Performance (BMP Implementation)	$54,430	$50,000	$120,000
Municipal Activities (LIP Section 5.0) Pesticide & Fertilizer Management	$75,000	$75,000	$75,000
Public Information (LIP Section 6.0) Nonpoint Source Pollution Awareness	$13,500	$13,500	$13,500
Public Information (LIP Section 6.0) Household Hazardous Waste Collection	$0.00	$0.00	$0.00
Requiring New Development BMPs (Supportive of Planning, etc) (LIP Section 7.0)	$5,529	$25,977	$26,459
Requiring Construction BMPs (Supportive of Plan Check & Inspection) (LIP Section 8.0)	$71,397	$66,184	$88,694
Existing Development (LIP Section 9.0) Industrial/Comm./HOA Inspections	$42,000	$42,000	$45,000

Illicit Connections/Discharge Ident. & Elimination (LIP Section10.0) Investigations	$3,791	$14,140	$9,649
Agency Contribution to Regional Program	$147,985	$154,81	$161,000
Other - Household Hazardous Waste	$0.00	$0.00	$0.00
Other	$0.00	$0.00	$0.00
Totals	$	$	$

FUNDING SOURCES

LIP Funding Sources	2017-18 Funding Sources	2018-19 Funding Sources	2019-20 Projected Funding Sources
General Fund	100%	100%	100%
Utility Tax/Charges			
Separate Utility Billing Item			
Gas Tax			
Special District Fund			
- Sanitation Fee			
- Benefit Assessment			
- Fleet Maintenance Fund			
- Community Services Fund			
- Water Fund			
- Sewer & Storm Drain Maintenance Fee			
Other: Air Quality Improvement Fund			
Other: Measure M2			
Other			

C-2.5 Program Management Modifications

The modifications that will be made to the Program Management section of the City's LIP include the following: no modifications are planned for the 19-20 reporting year.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☒
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒

C-2.3 City Internal Coordination

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2.

C-2.4 Fiscal Analysis

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Costa Mesa. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	2018-19 Expenditures	2019-20 Expenditures	2020-21 Projected Costs
Public Projects - BMPs	$50,000	$50,000	$50,000
Construction BMPs for Public Construction Projects	$52,021	$74,418	$55,997

Other Capital Projects / Major Equipment Purchases	$300,000	$100,000	$100,000
Totals	$402,021	$224,418	$205,997

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	2018-19 Expenditures	2019-20 Expenditures	2020-21 Projected Costs
Supportive of Program Administration (LIP Section 2.0)	$282,798	$192,880	$109,573
Municipal Activities (LIP Section 5.0) Trash & Debris Control (formerly "Litter Control")	$126,899	$162,100	$162,800
Municipal Activities (LIP Section 5.0) Drainage Facility Maintenance	$175,404	$269,312	$274,536
Municipal Activities (LIP Section 5.0) Street Sweeping	$760,912	$792,212	$340,359
Municipal Activities (LIP Section 5.0) Environmental Performance (BMP Implementation)	$50,000	$50,000	$120,000
Municipal Activities (LIP Section 5.0) Pesticide & Fertilizer Management	$75,000	$75,000	$75,000
Public Information (LIP Section 6.0) Nonpoint Source Pollution Awareness	$13,500	$13,500	$13,500
Public Information (LIP Section 6.0) Household Hazardous Waste Collection	$0.00	$0.00	$0.00
Requiring New Development BMPs (Supportive of Planning, etc) (LIP Section 7.0)	$27,875	$26,459	$25,786
Requiring Construction BMPs (Supportive of Plan Check & Inspection) (LIP Section 8.0)	$57,704	$58,694	$87,854
Existing Development (LIP Section 9.0) Industrial/Comm./HOA Inspections	$45,000	$45,000	$45,000
Illicit Connections/Discharge Ident. & Elimination (LIP Section10.0) Investigations	$14,140	$11,998	$9,128

Agency Contribution to Regional Program	$154,810	$160,907	$152,534
Other - Household Hazardous Waste	$0.00	$0.00	$0.00
Other	$0.00	$0.00	$0.00
Totals	$	$	$

FUNDING SOURCES

LIP Funding Sources	2018-19 Funding Sources	2019-20 Funding Sources	2020-21 Projected Funding Sources
General Fund	100%	100%	100%
Utility Tax/Charges			
Separate Utility Billing Item			
Gas Tax			
Special District Fund			
- Sanitation Fee			
- Benefit Assessment			
- Fleet Maintenance Fund			
- Community Services Fund			
- Water Fund			
- Sewer & Storm Drain Maintenance Fee			
Other: Air Quality Improvement Fund			
Other: Measure M2			
Other			

C-2.5 Program Management Modifications

The modifications that will be made to the Program Management section of the City's LIP include the following: One additional Principal Civil Engineer will be involved in the overall coordination and implementation of the City's NPDES program.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☒
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒

C-2.3 City Internal Coordination

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2.

C-2.4 Fiscal Analysis

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Costa Mesa. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	2019-20 Expenditures	2020-21 Expenditures	2021-22 Projected Costs
Public Projects - BMPs	$50,000	$50,000	$50,000
Construction BMPs for Public Construction Projects	$52,021	$74,418	$55,997

Other Capital Projects / Major Equipment Purchases	$300,000	$100,000	$100,000
Totals	$402,021	$224,418	$205,997

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	2019-20 Expenditures	2020-21 Expenditures	2021-22 Projected Costs
Supportive of Program Administration (LIP Section 2.0)	$192,880	$202,524	$212,650
Municipal Activities (LIP Section 5.0) Trash & Debris Control (formerly "Litter Control")	$148,021	$162,800	$162,400
Municipal Activities (LIP Section 5.0) Drainage Facility Maintenance	$260,295	$274,537	$289,456
Municipal Activities (LIP Section 5.0) Street Sweeping	$764,260	$340,359	$814,984
Municipal Activities (LIP Section 5.0) Environmental Performance (BMP Implementation)	$50,000	$50,000	$120,000
Municipal Activities (LIP Section 5.0) Pesticide & Fertilizer Management	$75,000	$75,000	$75,000
Public Information (LIP Section 6.0) Nonpoint Source Pollution Awareness	$13,500	$13,500	$13,500
Public Information (LIP Section 6.0) Household Hazardous Waste Collection	$0.00	$0.00	$0.00
Requiring New Development BMPs (Supportive of Planning, etc) (LIP Section 7.0)	$24,229	$25,786	$37,756
Requiring Construction BMPs (Supportive of Plan Check & Inspection) (LIP Section 8.0)	$42,675	$52,712	$57,885
Existing Development	$45,000	$45,000	$45,000

(LIP Section 9.0) Industrial/Comm./HOA Inspections			
Illicit Connections/Discharge Ident. & Elimination (LIP Section10.0) Investigations	$14,140	$11,998	$9,128
Agency Contribution to Regional Program	$154,810	$160,907	$152,534
Other - Household Hazardous Waste	$0.00	$0.00	$0.00
Other	$0.00	$0.00	$0.00
Totals	$	$	$

FUNDING SOURCES

LIP Funding Sources	2019-20 Funding Sources	2020-21 Funding Sources	2021-22 Projected Funding Sources
General Fund	100%	100%	100%
Utility Tax/Charges			
Separate Utility Billing Item			
Gas Tax			
Special District Fund			
- Sanitation Fee			
- Fleet Maintenance Fund			
- Community Services Fund			
- Water Fund			
- Sewer & Storm Drain Maintenance Fee			
Other: Measure M2			

C-2.5 Program Management Modifications

The modifications that will be made to the Program Management section of the City's LIP include the following: One additional Associate Engineer will be involved in the overall coordination and implementation of the City's NPDES program. The City also intends to utilize the results of the Storm Drain System Master Plan update to improve the City's stormwater management methods and improve compliance outcomes.

EXHIBIT 3

The General Permittee Committee meets eleven times per year. The City of Irvine had representatives at the following meetings:

Meeting Date	
July 23, 2009	☑
August 27, 2009	☑
September 24, 2009	☑
October 29, 2009	☐
December 17, 2009	☑
January 28, 2010	☑
February 25, 2010	☑
March 25, 2010	☑
April 22, 2010	☑
May 27, 2010	☑
June 24, 2010	☑

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
▪ LIP/PEA	☑
▪ Inspection	☑
▪ Trash & Debris	☐
▪ Legal/Regulatory Authority	☑
▪ Public Education	☑
▪ Water Quality	☑
▪ Ad Hoc Annual Report	☑
▪ Permittee Advisory Group (PAG) for the Development of the Model WQMP	☑

C-2.3 City Internal Coordination (LIP Section A-2.3)

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2

C-2.4 Fiscal Analysis (LIP Section A-2.4)

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Irvine. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS

(Land, Large Equipment and Structures)

LIP Program Elements	FY 2009-10 Costs	Projected FY 2010-11 Costs*
(LIP Section A-8)	$215,000	$175,000
Totals	**$215,000**	**$175,000***

* these are estimates only and actual FY 2010-11 costs may differ significantly

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	FY 2009-10 Costs	Projected FY 2010-11 Costs**
Program Management (LIP Section A-2)	$1,019,400	$981,200
Municipal Activities (LIP Section A-5)	$2,916,550	$3,239,300
Public Education (LIP Section A-6)	$35,000	$9,000
New Development / Redevelopment (LIP Section A-7)	$59,000	$60,800
Construction (LIP Section A-8)	$150,000	$202,000
Existing Development (LIP Section A-9)	$72,500	$74,600
Illicit Discharges / Illicit Connection (LIP Section A-10)	$4,300	$4,400
Totals	**$4,256,750**	**$4,571,300**

** these are estimates only and actual FY 2010-11 costs may differ significantly

FUNDING SOURCES

LIP Program Elements	FY 2009-10 Costs	Projected FY 2010-11 Costs
General Fund	$4,007,550	4,367,300
Special Fund 180 (Great Park)	$464,200	$379,000
Totals	**$4,471,750**	**$4,746,300**

C-2.5 Program Management Modifications

The City does not anticipate making modifications to the Plan Management section at this time.

The General Permittee Committee meets eleven times per year. The City of Irvine had representatives at the following meetings:

Meeting Date	Attended
July 22, 2010	☑
August 26, 2010	☑
September 23, 2010	☑
October 28, 2010	☑
December 16, 2010 (no meeting)	☐
January 27, 2011	☑
February 24, 2011	☑
March 24, 2011	☑
April 28, 2011	☑
May 26, 2011	☑
June 23, 2011	☑

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☑
Inspection	☑
Trash & Debris	☐
Legal/Regulatory Authority	☑
Public Education	☑
Water Quality	☑
Ad Hoc Annual Report	☑
Permittee Advisory Group (PAG) for the Development of the Model WQMP	☑

C-2.3 City Internal Coordination (LIP Section A-2.3)

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2

C-2.4 Fiscal Analysis (LIP Section A-2.4)

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Irvine. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	FY 2009-10 Expenditures	FY 2010-11 Expenditures	FY 2011-12 Projected Costs
Totals	**$215,000**	**$191,763**	**$201,351**

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	FY 2009-10 Expenditures	FY 2010-11 Expenditures	FY 2011-12 Projected Costs
Totals	**$4,256,750**	**$3,598,027**	**$4,036,418**

FUNDING SOURCES

LIP FUNDING SOURCES	FY 209-10 Funding Sources	FY 2010-11 Funding Sources	FY 2010-11 Projected Funding Sources
General Fund	100%	100%	100%
Utility Tax/Charges	%	%	%
Separate Utility Billing Item	%	%	%
Gas Tax	%	%	%
Special Restricted Fund	%	%	%
- Sanitation Fee	%	%	%
- Benefit Assessment	%	%	%
- Fleet Maintenance Fund	%	%	%
- Community Services Fund	%	%	%
- Water Fund	%	%	%
- Sewer & Storm Drain Maintenance Fee	%	%	%
- Others	%	%	%
TOTALS	**100%**	**100%**	**100%**

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☐
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒

C-2.3 City Internal Coordination (LIP Section A-2.3)

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2

C-2.4 Fiscal Analysis (LIP Section A-2.2.5)

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Irvine. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	FY 2011-12 Projected Costs	2011-12 Expenditures	2012-13 Projected Costs
Totals	**$201,351**	**$51,770.21**	**$79,827.23**

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	FY 2011-12 Projected Costs	2011-12 Expenditures	2012-13 Projected Costs
Totals	**$4,036,418**	**$3,860,657.34**	**$4,042,435.83**

FUNDING SOURCES

LIP Funding Sources	FY 2011-12 Funding Sources	FY 2012-13 Projected Funding Sources
General Fund	98.5%	98.5%
Other	1.5%*	1.5%*

*activities at the Great Park are funded through a separate funding source

C-2.5 Program Management Modifications

The modifications that will be made to the Plan Management section of the City's LIP include the following:

The City of Irvine does not plan to modify the Plan Management section of the City's LIP during the FY 2011-12 reporting period.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☐
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒

Amanda Carr served as the chair of the Public Education sub-committee for fiscal year 2012-13.

C-2.3 City Internal Coordination (LIP Section A-2.3)

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2

C-2.4 Fiscal Analysis (LIP Section A-2.2.5)

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Irvine. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	2011-12 Expenditures	2012-13 Expenditures	2013-14 Projected Costs
Totals	**$51,770.21**	**$90,890.22**	**$340,000.00**

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	2011-12 Expenditures	2012-13 Expenditures	2013-14 Projected Costs
Totals	$3,860,657	$4,280,021	$4,540,277

FUNDING SOURCES

LIP Funding Sources	2011-12 Expenditures	2012-13 Expenditures	2013-14 Projected Costs
General Fund	98.5%	98.3%	98.4%
Other*	1.5%	1.7%	1.6%

*activities at the Great Park are funded through a separate funding source

C-2.5 Program Management Modifications

The modifications that will be made to the Plan Management section of the City's LIP include the following:

The City of Irvine does not plan to modify the Plan Management section of the City's LIP during the FY 2013-14 reporting period.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☒
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒

Amanda Carr continued to serve as the chair of the Public Education sub-committee for fiscal year 2013-2014.

C-2.3 City Internal Coordination (LIP Section A-2.3)

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2

C-2.4 Fiscal Analysis (LIP Section A-2.2.5)

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Irvine. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	2012-13 Expenditures	2013-14 Expenditures	2014-15 Projected Costs
Totals	**$90,890**	**$489,014**	**$495,000**

The increase in capital cost expenditures reflects the City's share of the costs for the Peters Canyon Wash Channel Water Capture and Reuse Pipeline project. The project is a joint effort between the City of Irvine, City of Tustin, County of Orange, Orange County Flood Control District, Irvine Ranch Water District and California Department of Transportation. The proposed project is to divert high nitrogen and selenium groundwater and surface flows from two stormdrains, a drainage channel and the Caltrans 261 dewatering facility into a buried pipeline along the east side of Peters Canyon Wash. The pipeline will carry the water to the Orange County Sanitation District (OCSD) trunk sewer line at Main Street. The water will then be treated at the Fountain Valley OCSD facility and transferred to the Orange County Water District Groundwater Replenishment System for further treatment and eventual groundwater recharge and beneficial reuse. Activities in FY2013-14 included project engineering design, environmental documentation and permitting. Construction is anticipated in FY2014-15. Total project cost is estimated at $8.6 M.

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	2012-13 Expenditures	2013-14 Expenditures	2014-15 Projected Costs
Totals	$4,280,021	$4,691,905	$4,922,312

FUNDING SOURCES

LIP Funding Sources	2012-13 Expenditures	2013-14 Expenditures	2014-15 Projected Costs
General Fund	98.3%	100%	100%
Other*	1.7%	0%	0%

*activities at the Great Park had historically been funded through a separate funding source

C-2.5 Program Management Modifications

The modifications that will be made to the Plan Management section of the City's LIP include the following:

The City of Irvine will update the Plan Management section of the City's LIP during the FY 2014-15 reporting period as necessary in response to the adopted 5th Term NPDES permit. Regional Board approval of the 5th Term NPDES permit is anticipated in late 2014.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☒
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒

C-2.3 City Internal Coordination (LIP Section A-2.3)

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2

C-2.4 Fiscal Analysis (LIP Section A-2.2.5)

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Irvine. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	2013-14 Expenditures	2014-15 Expenditures	2015-16 Projected Costs
Totals	$489,014.00	$1,859,599.41	$538,282.10

The increase in capital cost expenditures reflects the City's share of the costs for the Peters Canyon Wash Channel Water Capture and Reuse Pipeline project. The project is a joint effort between the City of Irvine, City of Tustin, County of Orange, Orange County Flood Control District, Irvine Ranch Water District and California Department of Transportation. The proposed project is to divert high nitrogen and selenium groundwater and surface flows from two stormdrains, a drainage channel and the Caltrans 261 dewatering facility into a buried pipeline along the east side of Peters Canyon Wash. The pipeline will carry the water to the Orange County Sanitation District (OCSD) trunk sewer line at Main Street. The water will then be treated at the Fountain Valley OCSD facility and transferred to the Orange County Water District Groundwater Replenishment System for further treatment and eventual groundwater recharge and beneficial reuse. Activities in FY2014-15 included completion of project engineering design, environmental documentation and permitting, construction bid advertisement, selection and contract award and final project partner funding contributions. Construction began in July 2015. Total project cost is estimated at $12.8M, an increase of $4.2M over the original cost estimate of $8.6M which was based on a 15% design estimate.

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	2013-14 Expenditures	2014-15 Expenditures	2015-16 Projected Costs
Totals	$4,691,905.25	$4,661,116.28	$4,897,963.89

FUNDING SOURCES

LIP Funding Sources	2013-14 Expenditures	2013-14 Expenditures	2014-15 Projected Costs
General Fund	100%	99.76%	100%
Other - Great Park Development Funds	0%	0.24%	0%

C-2.5 Program Management Modifications

The modifications that will be made to the Plan Management section of the City's LIP include the following:

The City of Irvine will update the Plan Management section of the City's LIP during the FY 2015-16 reporting period as necessary in response to the adopted 5th Term NPDES permit. Regional Board approval of the 5th Term NPDES permit is anticipated in late 2015.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☒
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒

C-2.3 City Internal Coordination (LIP Section A-2.3)

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2

C-2.4 Fiscal Analysis (LIP Section A-2.2.5)

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Irvine. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	2015-16 Expenditures	2016-17 Expenditures	2017-18 Projected Costs
Totals	$432,334.93	$195,365.13	$515,000

In FY2016-17, the decrease in capital cost expenditures reflects no major capital purchase as was the case in 2015-16 for a street sweeper.

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	2015-16 Expenditures	2016-17 Expenditures	2017-18 Projected Costs
Totals	$4,990,480.46	$5,245,006.03	$4,953,876.52

FUNDING SOURCES

LIP Funding Sources	2015-16 Expenditures	2016-17 Expenditures	2017-18 Projected Costs
General Fund	99.95%	99.65%	99.65%
Other – Great Park Development Funds	0.05%	0.35%	0.35%

C-2.5 Program Management Modifications

The modifications that will be made to the Plan Management section of the City's LIP include the following:

If Regional Board approval of 5th Term NPDES permit occurs in FY2018, the City of Irvine will update as necessary the Plan Management section of the City's LIP during the FY 2017-18 reporting period in response to adoption of a 5th Term NPDES permit. Regional Board approval of the 5th Term NPDES permit is not anticipated during FY2017-18.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☒
Trash Provisions Subcommittee	☒
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality - (no meeting)	☐
Newport Bay Watershed TMDL Meetings	☒

C-2.3 City Internal Coordination (LIP Section A-2.3)

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2

C-2.4 Fiscal Analysis (LIP Section A-2.2.5)

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Irvine. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	2016-17 Expenditures	2017-18 Expenditures	2018-19 Projected Costs
Totals	$195,365.13	$599,381.24	$265,769.00

In FY2017-18, the increase in capital cost expenditures reflects a major capital purchase of a street sweeper.

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	2016-17 Expenditures	2017-18 Expenditures	2018-19 Projected Costs
Totals	$5,245,006.03	$5,046,365.84	$5,178,706.00

FUNDING SOURCES

LIP Funding Sources	2016-17 Expenditures	2017-18 Expenditures	2018-19 Projected Costs
General Fund	99.65%	99.75%	99.70%
Other – Great Park Development Funds	0.35%	0.25%	0.30%

C-2.5 Program Management Modifications

The modifications that will be made to the Plan Management section of the City's LIP include the following:

If Regional Board approval of 5th Term NPDES permit occurs in FY2018-19, the City of Irvine will update as necessary the Plan Management section of the City's LIP during the FY 2018-19 reporting period in response to adoption of a 5th Term NPDES permit. Regional Board approval of the 5th Term NPDES permit is not anticipated during FY2018-19.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☐
Trash Provisions Subcommittee	☒
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality – (no meeting)	☐
Newport Bay Watershed TMDL Meetings	☒

C-2.3 City Internal Coordination (LIP Section A-2.3)

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2

C-2.4 Fiscal Analysis (LIP Section A-2.2.5)

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Irvine. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	2017-18 Expenditures	2018-19 Expenditures	2019-20 Projected Costs
Totals	$599,381.24	$175,000	$180,250

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	2017-18 Expenditures	2018-19 Expenditures	2019-20 Projected Costs
Totals	$5,046,365.84	$5,633,686.71	$6,147,048.00

FUNDING SOURCES

LIP Funding Sources	2017-18 Expenditures	2018-19 Expenditures	2019-20 Projected Costs
General Fund	99.75%	99.61%	99.60%
Other – Great Park Development Funds	0.25%	0.39%	0.40%

C-2.5 Program Management Modifications

The modifications to be made to the Plan Management section of the City's LIP include the following:

If Regional Board approval of 5th Term NPDES permit occurs in FY2019-20, the City of Irvine will update as necessary the Plan Management section of the City's LIP during the FY 2019-20 reporting period in response to adoption of a 5th Term NPDES permit. However, Regional Board approval of the 5th Term NPDES permit is not anticipated during FY2019-20.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☐
Trash Provisions Subcommittee	☒
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality – (no meeting)	☐
Newport Bay Watershed TMDL Meetings	☒

C-2.3 City Internal Coordination (LIP Section A-2.3)

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2

C-2.4 Fiscal Analysis (LIP Section A-2.2.5)

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Irvine. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	2018-19 Expenditures	2019-20 Expenditures	2020-21 Projected Costs
Totals	$175,000	$59,000	$60,770

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	2018-19 Expenditures	2019-20 Expenditures	2020-21 Projected Costs
Totals	$5,633,686.71	$5,716,836.92	$5,869,814.89

FUNDING SOURCES

LIP Funding Sources	2018-19 Expenditures	2019-20 Expenditures	2020-21 Projected Costs
General Fund	99.61%	99.59%	99.60%
Other – Great Park Development Funds	0.39%	0.41%	0.40%

C-2.5 Program Management Modifications

The modifications to be made to the Plan Management section of the City's LIP include the following:

If Regional Board approval of 5th Term NPDES permit occurs in FY2020-21, the City of Irvine will update as necessary the Plan Management section of the City's LIP during the FY2020-21 reporting period in response to adoption of a 5th Term NPDES permit. However, Regional Board approval of the 5th Term NPDES permit is not anticipated during FY2020-21.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☐
Trash Provisions Subcommittee	☒
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality – (no meeting)	☐
Newport Bay Watershed TMDL Meetings	☒

C-2.3 City Internal Coordination (LIP Section A-2.3)

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2

C-2.4 Fiscal Analysis (LIP Section A-2.2.5)

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Irvine. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	2019-20 Expenditures	2020-21 Expenditures	2021-22 Projected Costs
Totals	$59,000	$153,200	$155,000

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	2019-20 Expenditures	2020-21 Expenditures	2021-22 Projected Costs
Totals	$5,716,836.92	$5,410,795.81	$5,630,236.00

FUNDING SOURCES

LIP Funding Sources	2019-20 Expenditures	2020-21 Expenditures	2021-22 Projected Costs
General Fund	99.57%	99.83%	99.50%
Other – Great Park Development Funds	0.43%	0.17%	0.50%

C-2.5 Program Management Modifications

The modifications to be made to the Plan Management section of the City's LIP include the following:

If Regional Board approval of 5th Term NPDES permit occurs in FY2021-22, the City of Irvine will update as necessary the Plan Management section of the City's LIP during the FY2021-22 reporting period in response to adoption of a 5th Term NPDES permit. However, Regional Board approval of the 5th Term NPDES permit is not anticipated during FY2021-22.

EXHIBIT 4

May 27, 2010	☐
June 24, 2010	☒

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☐
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒
Ad Hoc Annual Report	☒
Permittee Advisory Group (PAG) for the Development of the Model WQMP	☒

Also, City representatives participated in the following watershed-committees:

Watershed Committee	Attended
Laguna Coastal Streams	☐
Aliso Creek	☒
Dana Point Coastal Streams	☐
San Juan Creek	☐
San Clemente Coastal Streams	☐
Newport Bay	☒

C-2.3 City Internal Coordination (LIP Section A-2.3)

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2

C-2.4 Fiscal Analysis (LIP Section A-2.4)

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year
- The City's projected budget for the next fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Lake Forest. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	Costs FY 2009-10	Projected Costs FY 2010-11
Equipment Purchases	$60,000	$30,000
Totals	$60,000	$30,000

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	Costs FY 2008-2009	Costs FY 2009-10	Projected Costs FY 2010-11
Supportive of Program Administration (LIP Section 2.0)	$212,467	$234,892	$245,500
Municipal Activities (LIP Section 5.0) Trash & Debris Control	$101,280	$80,597	$84,200
Municipal Activities (LIP Section 5.0) Drainage Facility Maintenance	$58,617	$71,316	$74.,550
Municipal Activities (LIP Section 5.0) Street Sweeping	$327,644	$332,998	$348,000
Municipal Activities (LIP Section 5.0) Environmental Performance/BMP Implementation	$72,696	$99,952	$104,450
Municipal Activities (LIP Section 5.0) Pesticide & Fertilizer Management	$58,158	$52,856	$55,250
Public Information (LIP Section 6.0) Nonpoint Source Pollution Awareness	$24,854	$26,786	$28,000
Public Information (LIP Section 6.0) Household Hazardous Waste Collection	$30,000	$30,000	$30,000
Requiring New Development BMPs (Supportive of Planning, etc.) (LIP Section 7.0)	$19,061	$13,642	$30,000

Requiring Construction BMPs (Supportive of Plan Check & Inspection (LIP Section 8.0)	$19,548	$22,702	$23,700
Existing Development (LIP Section 9.0) Industrial/Commercial Inspections	$101,751	$116,023	$121,250
Illicit Connections/Illegal Discharge (LIP Section 10.0) Investigations	$88,105	$102,703	$107,300
Agency Contribution to Regional Program	$123,208	$120,570	$126,000
Totals	$1,237,389	$1,305,037	$1,378,200

FUNDING SOURCES

LIP Funding Sources	FY 2009-10 Funding Sources	FY 2010-11 Projected Funding Sources
General Fund	100%	100%
Utility Tax/Charges		
Separate Utility Billing Item		
Gas Tax		
Special District Fund		
- Sanitation Fee		
- Benefit Assessment		
- Fleet Maintenance Fund		
- Community Services Fund		
- Water Fund		
- Sewer & Storm Drain Maintenance Fee		
- Other		

A review of the costs for fiscal year 2008-09 and fiscal year 2009-10 indicate that there was a 25 percent or great change for program elements concerning municipal activities for environmental performance/BMP implementation and new development BMPs. The change observed in the municipal activities BMP implementation is most likely due to the additional inspection activities and BMP implementation realized at additional municipal parks added to the City's inventory. The change observed in the new development BMP requirements is most likely due to the significant down-turn in the economy during the last fiscal year which resulted in corresponding reductions in new development activities and fewer development applications.

May 26, 2011	☒
June 23, 2011	☒

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☐
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒
Ad Hoc Annual Report	☒
Permittee Advisory Group (PAG) for the Development of the Model WQMP	☒

Also, City representatives participated in the following watershed-committees:

Watershed Committee	Attended
Laguna Coastal Streams	☐
Aliso Creek	☒
Dana Point Coastal Streams	☐
San Juan Creek	☐
San Clemente Coastal Streams	☐

C-2.3 City Internal Coordination (LIP Section A-2.2)

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2

C-2.4 Fiscal Analysis (LIP Section A-2..2.5)

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Lake Forest. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	2009-10 Expenditures	2010-11 Expenditures	2011-12 Projected Costs
Totals	$60,000	$25,000	$30,000

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	Costs FY 2009-2010	Costs FY 20010-11	Projected Costs FY 2011-12
Supportive of Program Administration (LIP Section 2.0)	$234,892	$210,655	$220,134
Municipal Activities (LIP Section 5.0) Trash & Debris Control	$80,597	$62,318	$65,122
Municipal Activities (LIP Section 5.0) Drainage Facility Maintenance	$71,316	$65,789	$69,078
Municipal Activities (LIP Section 5.0) Street Sweeping	$332,998	$335,679	$350,785
Municipal Activities (LIP Section 5.0) Environmental Performance/BMP Implementation	$99,952	$79,424	$82,998
Municipal Activities (LIP Section 5.0) Pesticide & Fertilizer Management	$52,856	$56,314	$58,848
Public Information (LIP Section 6.0) Nonpoint Source Pollution Awareness	$26,786	$25,325	$26,465
Public Information (LIP Section 6.0) Household Hazardous Waste Collection	$30,000	$30,000	$30,00
Requiring New Development BMPs (Supportive of Planning, etc.) (LIP Section 7.0)	$13,642	$48,157	$50,324

Requiring Construction BMPs (Supportive of Plan Check & Inspection (LIP Section 8.0)	$22,702	$18,960	$19,815
Existing Development (LIP Section 9.0) Industrial/Commercial Inspections	$116,023	$118,972	$124,326
Illicit Connections/Illegal Discharge (LIP Section 10.0) Investigations	$102,703	$107,187	$112,010
Agency Contribution to Regional Program	$120,570	$112,888	$117,968
Totals	$1,305,037	$1,209,205	$1,317,795

FUNDING SOURCES

LIP Funding Sources	FY 2009-10 Funding Sources	FY 2010-11 Funding Sources	FY 2011-12 Projected Funding Sources
General Fund	100%	100%	100%
Utility Tax/Charges			
Separate Utility Billing Item			
Gas Tax			
Special District Fund			
- Sanitation Fee			
- Benefit Assessment			
- Fleet Maintenance Fund			
- Community Services Fund			
- Water Fund			
- Sewer & Storm Drain Maintenance Fee			
- Other			

A review of the costs for fiscal year 2009-10 and fiscal year 2010-11 indicate that there was 25 percent or greater change for program elements concerning requiring new development BMPs. The change observed in the new development BMPs implementation is due to the significantly increased workload associated with developing a comprehensively updated New Development and Significant Redevelopment program including the development of a new Model Water Quality Management Plan and associated technical resource and reference documents. The costs associated with these tasks in very conservative. Actual costs associated with staff time for these efforts is likely much more; however, they were not directly tracked.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☐
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒

SAN DIEGO REGION

Also, City representatives participated in the following watershed-committees:

Watershed Committee	Attended
Aliso Creek*	☒
San Juan Creek/San Clemente Coastal Streams**	☐

** Laguna Coastal Streams watershed permittees are also part of the Aliso Creek watershed and meet concurrently with that group.*
*** Dana Point Coastal Streams watershed permittees are also part of the San Juan Creek watershed and meet concurrently with that group.*

The City of Lake Forest is not a part of the San Juan Creek Watershed; therefore, the City did not participate in this committee.

C-2.3 City Internal Coordination (LIP Section A-2.2)

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2

C-2.4 Fiscal Analysis (LIP Section A-2.2.5)

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Lake Forest. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	2010-11 Expenditures	2011-12 Expenditures	2012-13 Projected Costs
Public Projects - BMPs		$470,765	$60,000
Construction BMPs for Public Construction Projects		$97,100	$60,000
Totals	**$60,000**	**$567,865**	**$90,000**

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	Costs FY 2010-2011	Costs FY 20011-12	Projected Costs FY 2012-12
Supportive of Program Administration (LIP Section 2.0)	$210,655	$198,550	$208,000
Municipal Activities (LIP Section 5.0) Trash & Debris Control	$62,318	$63,760	$66,629
Municipal Activities (LIP Section 5.0) Drainage Facility Maintenance	$65,789	$63,018	$66,000
Municipal Activities (LIP Section 5.0) Street Sweeping	$335,679	$315,867	$333,000
Municipal Activities (LIP Section 5.0) Environmental Performance/BMP Implementation	$79,424	$101,306	$106,000
Municipal Activities (LIP Section 5.0) Pesticide & Fertilizer Management	$56,314	$62,095	$65,000
Public Information (LIP Section 6.0) Nonpoint Source Pollution Awareness	$25,325	$24,360	$25,500
Public Information (LIP Section 6.0) Household Hazardous Waste Collection	$30,000	$30,000	$30,000
Requiring New Development BMPs (Supportive of Planning, etc.) (LIP Section 7.0)	$48,157	$37,223	$39,000
Requiring Construction BMPs (Supportive of Plan Check & Inspection (LIP Section 8.0)	$18,960	$29,238	$30,300

Existing Development (LIP Section 9.0) Industrial/Commercial Inspections	$118,972	$192,562	$201,000
Illicit Connections/Illegal Discharge (LIP Section 10.0) Investigations	$107,187	$110,260	$115,500
Agency Contribution to Regional Program	$112,888	$116,661	$122,000
Totals	**$1,209,205**	**$1,344,900**	**$1,407,929**

FUNDING SOURCES

LIP Funding Sources	FY 10-11 Funding Sources	FY 2011-12 Funding Sources	FY 2012-13 Projected Funding Sources
General Fund	100%	100%	100%
Utility Tax/Charges			
Separate Utility Billing Item			
Gas Tax			
Special District Fund			
- Sanitation Fee			
- Benefit Assessment			
- Fleet Maintenance Fund			
- Community Services Fund			
- Water Fund			
- Sewer & Storm Drain Maintenance Fee			
- Other			

A review of the costs for fiscal year 2010-11 and fiscal year 2011-12 indicate that there was 25 percent or greater change for program elements concerning municipal activities BMP implementation, requiring construction BMPs supportive of plan check and inspection, and existing development inspections. The municipal activities BMP implementation realized a reported cost increase during this reporting period. The increase was attributable to increased need for BMP deployment and implementation at numerous locations throughout the city. The costs reported this year match closely to prior reporting years; however, the previous reporting year (FY 2010-11) saw a decrease in expenditures associated with these activities. Therefore, the current reported expenditures appear to be more consistent with recent historical expenditures and do not reflect any significant programmatic changes. The change observed in expenditures related to requiring construction BMPs supportive of plan check and inspection reflect a change in reporting for the current reporting period. City staff worked with the Building and Safety Division to improve the assessment of costs associated with these activities. Therefore, the

reported increase in cost reported for this reporting period reflects a more accurate assessment of expenditures related to the specific LIP activities. This improved assessment will be carried forward in future annual reports. Finally, the existing development inspection expenditures increased during this reporting period partially due to increased burden associated with tracking and inspecting post construction structural BMPs and WQMP implementation throughout the City's jurisdiction more formalized tracking of inspections through a GIS-related data base, and a contract change for water quality inspection services.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☐
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒

SAN DIEGO REGION

Also, City representatives participated in the following watershed-committees:

Watershed Committee	Attended
Aliso Creek*	☒
San Juan Creek/San Clemente Coastal Streams**	☐

** Laguna Coastal Streams watershed permittees are also part of the Aliso Creek watershed and meet concurrently with that group.*
*** Dana Point Coastal Streams watershed permittees are also part of the San Juan Creek watershed and meet concurrently with that group.*

The City of Lake Forest is not a part of the San Juan Creek Watershed; therefore, the City did not participate in this committee.

C-2.3 City Internal Coordination (LIP Section A-2.2)

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2

C-2.4 Fiscal Analysis (LIP Section A-2.2.5)

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Lake Forest. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	2011-12 Expenditures	2012-13 Expenditures	2013-14 Projected Costs
Public Projects - BMPs	$470,765	$654,254	$100,000
Construction BMPs for Public Construction Projects	$97,100	$352,435	$100,000
Other Capital Projects/Major Equipment Purchases			$10,000
Totals	**$567,865**	**$1,006,689**	**$210,000**

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	Costs FY 2011-2012	Costs FY 20012-13	Projected Costs FY 2013-14
Supportive of Program Administration (LIP Section 2.0)	$198,550	$196,279	$205,000
Municipal Activities (LIP Section 5.0) Trash & Debris Control	$63,760	$49,588	$52,000
Municipal Activities (LIP Section 5.0) Drainage Facility Maintenance	$63,018	$74,862	$78,000
Municipal Activities (LIP Section 5.0) Street Sweeping	$315,867	$278,916	$292,000
Municipal Activities (LIP Section 5.0) Environmental Performance/BMP Implementation	$101,306	$79,935	$84,000
Municipal Activities (LIP Section 5.0) Pesticide & Fertilizer Management	$62,095	$70,408	$74,000
Public Information (LIP Section 6.0) Nonpoint Source Pollution Awareness	$24,360	$22,182	$23,000
Public Information (LIP Section 6.0) Household Hazardous Waste Collection	$30,000	$30,000	$30,000
Requiring New Development BMPs (Supportive of Planning, etc.) (LIP Section 7.0)	$37,223	$29,092	$31,000
Requiring Construction BMPs	$29,238	$30,081	$32,000

(Supportive of Plan Check & Inspection (LIP Section 8.0)			
Existing Development (LIP Section 9.0) Industrial/Commercial Inspections	$192,562	$180,409	$189,000
Illicit Connections/Illegal Discharge (LIP Section 10.0) Investigations	$110,260	$101,681	$106,000
Agency Contribution to Regional Program	$116,661	$130,743	$137,000
Totals	**$1,344,900**	**$1,274,176**	**$1,333,000**

FUNDING SOURCES

LIP Funding Sources	FY 11-12 Funding Sources	FY 2012-13 Funding Sources	FY 2013-14 Projected Funding Sources
General Fund	100%	97%	97%
Utility Tax/Charges			
Separate Utility Billing Item			
Gas Tax		1%	1%
Special District Fund			
- Sanitation Fee			
- Benefit Assessment			
- Fleet Maintenance Fund			
- Community Services Fund			
- Water Fund			
- Sewer & Storm Drain Maintenance Fee			
- Other: M2 Grant Funding		2%	2%

An assessment of the costs for Fiscal Year 2011-12 and Fiscal Year 2012-13 indicate that there were no program element expenditures that experienced a 25 percent or greater change. During this reporting year, the City of Lake Forest submitted competitive grant applications for proposed catch basin retrofit projects at various locations throughout the City. The City was awarded grant funding for two proposed projects that accounted for approximately 2% funding of this Fiscal Year's expenditures. The City was awarded two competitive grants that funded two similar projects toretrofit selected catch basins with Automatic Retractable Screens (ARS). The catch basin locations selected for ARS retrofits were based upon land uses typically generating high use vehicle and pedestrian traffic, and an elevated potential for generating gross pollutants. The purpose of the projects is to prevent trash, debris, and particles carrying pollutants generated and transported at street level from entering the storm drain system and

impacting downstream waterbodies. These projects represent an important BMP retrofit opportunity within existing development areas that can be significantly impacted but provide for limited structural BMP implementation opportunities due to multiple constraints including private properties, limited right-of-way, and constraints inherent in "built-out" urban conditions. Moreover, these projects also represent an example of successful progress completed within the City's fiscal constraints posed by finite resources and a depressed economy, facilitated through financial assistance awarded through competitive grant funding.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☒
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒

SAN DIEGO REGION

Also, City representatives participated in the following watershed-committees:

Watershed Committee	Attended
Aliso Creek*	☒
San Juan Creek/San Clemente Coastal Streams**	☐

** Laguna Coastal Streams watershed permittees are also part of the Aliso Creek watershed and meet concurrently with that group.*
*** Dana Point Coastal Streams watershed permittees are also part of the San Juan Creek watershed and meet concurrently with that group.*

The City of Lake Forest is not a part of the San Juan Creek Watershed; therefore, the City did not participate in this committee. However, on a few occasions, the Aliso Creek and San Juan Creek Watershed permittees held joint meetings in preparation for anticipated budgeting planning and planning for future WQIP development.

C-2.3 City Internal Coordination (LIP Section A-2.2)

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2

C-2.4 Fiscal Analysis (LIP Section A-2.2.5)

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Lake Forest. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	2013-14 Expenditures	2014-15 Expenditures	2015-16 Projected Costs
Public Projects - BMPs	$21,000	$103,336	$200,000
Construction BMPs for Public Construction Projects	$17,700	$33,000	$30,000
Other Capital Projects/Major Equipment Purchases	$50,000	$0	$0
Totals	**$88,700**	**$136,336**	**$230,000**

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	Costs FY 2013-14	Costs FY 2014-15	Projected Costs FY 2015-16
Supportive of Program Administration (LIP Section 2.0)	$219,223	$214,533	$250,000
Municipal Activities (LIP Section 5.0) Trash & Debris Control	$54,357	$47,906	$49,500
Municipal Activities (LIP Section 5.0) Drainage Facility Maintenance	$50,934	$49,144	$51,000
Municipal Activities (LIP Section 5.0) Street Sweeping	$316,866	$319,962	$331,000
Municipal Activities (LIP Section 5.0) Environmental Performance/BMP Implementation	$107,637	$102,133	$106,000
Municipal Activities (LIP Section 5.0) Pesticide & Fertilizer Management	$51,580	$68,923	$71,000
Public Information (LIP Section 6.0) Nonpoint Source Pollution Awareness	$29,403	$18,342	$19,000
Public Information (LIP Section 6.0) Household Hazardous Waste Collection	$0	$60,000	$30,000
Requiring New Development BMPs (Supportive of Planning, etc.) (LIP Section 7.0)	$36,811	$36,105	$37,000

Requiring Construction BMPs (Supportive of Plan Check & Inspection (LIP Section 8.0)	$32,000	$35,303	$37,000
Existing Development (LIP Section 9.0) Industrial/Commercial Inspections	$180,655	$75,816	$79,000
Illicit Connections/Illegal Discharge (LIP Section 10.0) Investigations	$108,387	$101,904	$105,000
Agency Contribution to Regional Program	$104,476	$93,481	$100,000
Totals	**$1,292,329**	**$1,223,552**	**$1,266,000**

FUNDING SOURCES

LIP Funding Sources	FY 13-14 Funding Sources	FY 2014-15 Funding Sources	FY 2015-16 Projected Funding Sources
General Fund	97%	91%	91%
Utility Tax/Charges			
Separate Utility Billing Item			
Gas Tax	1%	1%	1%
Special District Fund			
- Sanitation Fee			
- Benefit Assessment			
- Fleet Maintenance Fund			
- Community Services Fund			
- Water Fund			
- Sewer & Storm Drain Maintenance Fee			
- Other: M2 Grant Funding	6%	8%	8%

An assessment of the costs for Fiscal Year 2013-14 and Fiscal Year 2014-15 indicate that there were a few program element expenditures that experienced a 25 percent or greater change. A review of the change in expenditures calculated for drainage facility maintenance and pesticide & fertilizer management is most likely reflective of additional storm drain infrastructure and BMP retrofit locations that were added to the maintenance program. A review of the decreased expenditures for public information, non-point source pollution awareness indicates the recent changes in solid waste contractors caused delays in the ability to print and distribute billing inserts as in previous years. The increase in hazardous waste collections was anticipated and was reported in the last reporting period. The household hazardous waste collections resumed

this reporting period after transitioning the City's solid waste franchise agreement to a new contractor. A review of the decreased expenditures calculated for industrial and commercial inspections is most likely reflective of terminating inspection services with an outside contractor and implementing the inspection program in-house.

Similar to the previous reporting year, the City of Lake Forest, submitted competitive grant applications for proposed catch basin retrofit projects at various locations throughout the City. Two projects were completed during the reporting period. Funding for the two projects accounts for approximately 8% for FY 2014-15 and approximately 8% projected for next Fiscal Year's expenditures.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☒
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒

SAN DIEGO REGION

Also, City representatives participated in the following watershed-committees:

Watershed Committee	Attended
Aliso Creek*	☒
San Juan Creek/San Clemente Coastal Streams**	☒

** Laguna Coastal Streams watershed permittees are also part of the Aliso Creek watershed and meet concurrently with that group.*
*** Dana Point Coastal Streams watershed permittees are also part of the San Juan Creek watershed and meet concurrently with that group.*

The City of Lake Forest is not a part of the San Juan Creek Watershed; however, in light of collaborative cross-watershed issues and Water Quality Improvement Plan development, the City has participated in joint sessions of this committee.

C-2.3 City Internal Coordination (LIP Section A-2.2)

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2

C-2.4 Fiscal Analysis (LIP Section A-2.2.5)

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Lake Forest. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	2014-15 Expenditures	2015-16 Expenditures	2016-17 Projected Costs
Public Projects - BMPs	$103,336	$170,000	$150,000
Construction BMPs for Public Construction Projects	$33,000	$1,200	$5,000
Other Capital Projects/Major Equipment Purchases	$0	NA	NA
Totals	**$136,336**	**$171,200**	**$155,000**

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	Costs FY 2014-15	Costs FY 2015-16	Projected Costs FY 2016-17
Supportive of Program Administration (LIP Section 2.0)	$214,533	$206,615	$213,705
Municipal Activities (LIP Section 5.0) Trash & Debris Control	$47,906	$75,354	$77,940
Municipal Activities (LIP Section 5.0) Drainage Facility Maintenance	$49,144	$55,775	$57,690
Municipal Activities (LIP Section 5.0) Street Sweeping	$319,962	$297,882	$308,100
Municipal Activities (LIP Section 5.0) Environmental Performance/BMP Implementation	$102,133	$167,449	$173,195
Municipal Activities (LIP Section 5.0) Pesticide & Fertilizer Management	$68,923	$72,648	$75,140
Public Information (LIP Section 6.0) Nonpoint Source Pollution Awareness	$18,342	$18,960	$19,610
Public Information (LIP Section 6.0) Household Hazardous Waste Collection	$60,000	$30,000	$30,000
Requiring New Development BMPs (Supportive of Planning, etc.) (LIP Section 7.0)	$36,105	$27,593	$28,550

Requiring Construction BMPs (Supportive of Plan Check & Inspection (LIP Section 8.0)	$35,303	$40,909	$54,950
Existing Development (LIP Section 9.0) Industrial/Commercial Inspections	$75,816	$78,541	$81,300
Illicit Connections/Illegal Discharge (LIP Section 10.0) Investigations	$101,904	$113,907	$117,850
Agency Contribution to Regional Program	$93,481	$122,721	$127,000
Totals	**$1,223,552**	**1,308,354**	**$1,365,030**

FUNDING SOURCES

LIP Funding Sources	FY 14-15 Funding Sources	FY 2015-16 Funding Sources	FY 2016-17 Projected Funding Sources
General Fund	91%	91%	91%
Utility Tax/Charges			
Separate Utility Billing Item			
Gas Tax	1%	1%	1%
Special District Fund			
- Sanitation Fee			
- Benefit Assessment			
- Fleet Maintenance Fund			
- Community Services Fund			
- Water Fund			
- Sewer & Storm Drain Maintenance Fee			
- Other: M2 Grant Funding	8%	8%	8%

An assessment of the costs for Fiscal Year 2014-15 and Fiscal Year 2015-16 indicate that there were a few program element expenditures that experienced a 25 percent or greater change. A review of the change in expenditures calculated for trash and debris control and environmental performance/BMP implementation is most likely reflective of a contract change for solid waste disposal and recycling, and the addition of City facilities including a large sports park. The decrease in expenditures for Household Hazardous Waste Collection was due to an a-typical circumstance where the City held two Household Hazardous Waste collection events instead of one. A review of the change in expenditures calculated for agency contributions for regional

programs was reflective of increasing complexity and implementation costs asscociated with these programs.

Similar to the previous reporting year, the City of Lake Forest, submitted competitive grant applications for proposed catch basin retrofit projects at various locations throughout the City. One project was completed during the reporting period consisting of installation of connector pipe screens and automatic retractable debris screens on numerous catch basins. Funding for the project accounts for approximately 8% for FY 2015-16 and approximately 8% projected for next Fiscal Year's expenditures.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☒
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒

SAN DIEGO REGION

Also, City representatives participated in the following watershed-committees:

Watershed Committee	Attended
Water Quality Improvement Plan	☒

C-2.3 City Internal Coordination (LIP Section A-2.2)

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2

C-2.4 Fiscal Analysis (LIP Section A-2.2.5)

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Lake Forest. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS

(Land, Large Equipment and Structures)

LIP Program Elements	2016-17 Expenditures	2017-18 Expenditures	2018-19 Projected Costs
Public Projects - BMPs	$284,000	$798,200	$10,000
Construction BMPs for Public Construction Projects	$18,520.00	$80,000	$30,000
Other Capital Projects/Major Equipment Purchases	NA	NA	NA
Totals	**$302,520**	**$878,200**	**$40,000**

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	Costs FY 2016-17	Costs FY 2017-18	Projected Costs FY 2018-19
Supportive of Program Administration (LIP Section 2.0)	$233,217	$232,019	$240,000
Municipal Activities (LIP Section 5.0) Trash & Debris Control	$33,808	$43,335	$45,000
Municipal Activities (LIP Section 5.0) Drainage Facility Maintenance	$50,736	$43,452	$45,000
Municipal Activities (LIP Section 5.0) Street Sweeping	$287,893	$293,471	$304,000
Municipal Activities (LIP Section 5.0) Environmental Performance/BMP Implementation	$76,944	$98,635	$102,000
Municipal Activities (LIP Section 5.0) Pesticide & Fertilizer Management	$8,405	$10,197	$10,600
Public Information (LIP Section 6.0) Nonpoint Source Pollution Awareness	$19,843	$22,114	$23,000
Public Information (LIP Section 6.0) Household Hazardous Waste Collection	$60,000	$60,000	$60,000
Requiring New Development BMPs (Supportive of Planning, etc.) (LIP Section 7.0)	$38,448	$23,129	$20,000

Requiring Construction BMPs (Supportive of Plan Check & Inspection (LIP Section 8.0)	$44,153	$50,449	$52,000
Existing Development (LIP Section 9.0) Industrial/Commercial Inspections	$82,443	$87,186	$91,000
Illicit Connections/Illegal Discharge (LIP Section 10.0) Investigations	$114,720	$127,578	$132,000
Agency Contribution to Regional Program	$117,270	$140,176	$145,000
Totals	**$1,137,880**	**$1,227,731**	**$1,269,600**

FUNDING SOURCES

LIP Funding Sources	FY 16-17 Funding Sources	FY 2017-18 Funding Sources	FY 2018-198 Projected Funding Sources
General Fund	91%	98.8%	98.8%
Utility Tax/Charges			
Separate Utility Billing Item			
Gas Tax	1%	1%	1%
Special District Fund			
- Sanitation Fee			
- Benefit Assessment			
- Fleet Maintenance Fund			
- Community Services Fund			
- Water Fund			
- Sewer & Storm Drain Maintenance Fee			
- Other: M2 Grant Funding	8%	0.2%	0.2%

A comparison of the costs for Fiscal Year 2016-17 and Fiscal Year 2017-18 indicate that there were a couple program element expenditures that experienced a 25 percent or greater change. A review of the change in expenditures calculated for environmental performance/BMP implementation appears to be indicative of the increasing operations and maintenance costs associated with LID BMP maintenance and resolving issues with water conservation irrigation practices and recycled water use within large public parks and facilities. The change in expenditures for requiring new development BMPs is most likely indicative of the increase in project applications and corresponding review and processing of Water Quality Management Plans and grading plans.

Similar to the previous reporting year, the City of Lake Forest, submitted a competitive grant application for proposed catch basin retrofit projects at various locations throughout the City. One project was completed during the reporting period consisting of installation of connector pipe screens and automatic retractable debris screens on numerous catch basins. Funding for the project accounts for approximately 0.2% of the total expenditures for FY 2017-18.

The General Permittee Committee meets nine times per year. The City of Lake Forest had representatives at the following meetings:

Meeting Date	Attended
July 26, 2018 General Permittee	☐
October 25, 2018 General Permittee	☐
December 13, 2018 Trash Provisions	☐
January 24, 2019 General Permittee	☐
April 25, 2019 General Permittee	☒
June 13, 2019 LIP/PEA	☐

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☒
Legal/Regulatory Authority	☒
Public Education	☒

SAN DIEGO REGION

Also, City representatives participated in the following watershed-committees:

Watershed Committee	Attended
South OC WQIP	☒

C-2.3 City Internal Coordination (LIP Section A-2.2)

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2

C-2.4 Fiscal Analysis (LIP Section A-2.2.5)

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to summarize NPDES compliance related costs for the City of Lake Forest. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	2017-18 Expenditures	2018-19 Expenditures	2019-20 Projected Costs
Public Projects - BMPs	$284,000	191,881	$120,000
Construction BMPs for Public Construction Projects	$18,520.00	132,675	$65,000
Other Capital Projects/Major Equipment Purchases	NA	NA	NA
Totals	**$302,520**	**$324,556**	**$185,000**

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	Costs FY 2017-18	Costs FY 2018-19	Projected Costs FY 2019-20
Supportive of Program Administration (LIP Section 2.0)	$233,217	$254,380	$265,000
Municipal Activities (LIP Section 5.0) Trash & Debris Control	$33,808	$42,157	$44,000
Municipal Activities (LIP Section 5.0) Drainage Facility Maintenance	$50,736	$42,672	$45,000
Municipal Activities (LIP Section 5.0) Street Sweeping	$287,893	$300,495	$311,000
Municipal Activities (LIP Section 5.0) Environmental Performance/BMP Implementation	$76,944	$93,135	$102,500
Municipal Activities (LIP Section 5.0) Pesticide & Fertilizer Management	$8,405	$9,562	$10,000
Public Information (LIP Section 6.0) Nonpoint Source Pollution Awareness	$19,843	$21,206	$21,000
Public Information (LIP Section 6.0) Household Hazardous Waste Collection	$60,000	$60,000	$60,000

Requiring New Development BMPs (Supportive of Planning, etc.) (LIP Section 7.0)	$38,448	$30,372	$32,000
Requiring Construction BMPs (Supportive of Plan Check & Inspection (LIP Section 8.0)	$44,153	$50,622	$53,000
Existing Development (LIP Section 9.0) Industrial/Commercial Inspections	$82,443	$89,958	$93,000
Illicit Connections/Illegal Discharge (LIP Section 10.0) Investigations	$114,720	$122,680	$127,000
Agency Contribution to Regional Program	$117,270	$99,645	$103,000
Totals	**$1,137,880**	**$1,216,884**	**$1,266,500**

FUNDING SOURCES

LIP Funding Sources	FY 17-18 Funding Sources	FY 2018-19 Funding Sources	FY 2019-20 Projected Funding Sources
General Fund	91%	99%	95%
Utility Tax/Charges			
Separate Utility Billing Item			
Gas Tax	1%	1%	1%
Special District Fund			
- Sanitation Fee			
- Benefit Assessment			
- Fleet Maintenance Fund			
- Community Services Fund			
- Water Fund			
- Sewer & Storm Drain Maintenance Fee			
- Other: M2 Grant Funding	8%	0%	4%

A comparison of the expenditures for Fiscal Year 2017-18 and Fiscal Year 2018-19 indicate that there were a few program element expenditures that experienced a 25 percent or greater change. A review of the change in expenditures calculated for trash and debris control indicates the initial cost increases of controlling trash and debris because of increased operations and maintenance requirements for BMPs installed to comply with the statewide trash provisions. The City has installed numbers connector pipe screens and automatic retractable screens throughout its jurisdiction. Similarly, the environmental performance/BMP implementation

costs have increased due to increasing costs for implementation, operations and maintenance costs associated with BMPs city-wide. Moreover, the City incurs annual operations and maintenance costs associated with the Dairy Fork regional BMP.

Similar to the previous reporting year, the City of Lake Forest, submitted competitive grant applications for proposed catch basin retrofit projects at various locations throughout the City. If the City's proposed project is awarded grant funding, the City will install additional connector pipe screens and automatic retractable screens at selected locations throughout the City. It is anticipated that the project grant funding would represent approximately four percent of the City's funding sources, with approximately one percent coming from gas tax and the remaining 95 percent coming from the City's general fund.

C-2.3 City Internal Coordination (LIP Section A-2.2)

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2

C-2.4 Fiscal Analysis (LIP Section A-2.2.5)

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to summarize NPDES compliance related costs for the City of Lake Forest. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	2019-20 Expenditures	2020-21 Expenditures	2021-22 Projected Costs
Public Projects - BMPs	$272,295	$366,133	$50,000
Construction BMPs for Public Construction Projects	$47,000	$34,370	$20,000
Other Capital Projects/Major Equipment Purchases	NA	NA	NA
Totals	**$319,295**	**$400,503**	**$70,000**

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	Costs FY 2019-20	Costs FY 2020-21	Projected Costs FY 2021-22
Supportive of Program Administration (LIP Section 2.0)	$246,227	$234,578	$243,000
Municipal Activities (LIP Section 5.0) Trash & Debris Control	$32,637	$27,880	$29,000
Municipal Activities (LIP Section 5.0) Drainage Facility Maintenance	$62,644	$52,876	$55,000
Municipal Activities (LIP Section 5.0) Street Sweeping	$308,631	$371,618	$385,000
Municipal Activities (LIP Section 5.0) Environmental Performance/BMP Implementation	$79,259	$49,277	$51,000
Municipal Activities (LIP Section 5.0) Pesticide & Fertilizer Management	$8,460	$6,474	$8,000
Public Information (LIP Section 6.0) Nonpoint Source Pollution Awareness	$21,334	$20,413	$21,100
Public Information (LIP Section 6.0) Household Hazardous Waste Collection	$60,000	$60,000	$60,000
Requiring New Development BMPs (Supportive of Planning, etc.) (LIP Section 7.0)	$24,641	$11,998	$15,000
Requiring Construction BMPs (Supportive of Plan Check & Inspection (LIP Section 8.0)	$45,275	$50,832	$50,000
Existing Development (LIP Section 9.0) Industrial/Commercial Inspections	$90,668	$93,317	$95,000
Illicit Connections/Illegal Discharge (LIP Section 10.0) Investigations	$137,012	$147,213	$150,000
Agency Contribution to Regional Program	$100,035	$137,839	$150,000
Totals	**$1,216,843**	**$1,264,315**	**$1,312,100**

FUNDING SOURCES

LIP Funding Sources	FY 2019-20 Funding Sources	FY 2020-21 Funding Sources	FY 2021-22 Projected Funding Sources
General Fund	99%	100%	99%
Utility Tax/Charges			
Separate Utility Billing Item			
Gas Tax	1%		
Special District Fund			
- Sanitation Fee			
- Benefit Assessment			
- Fleet Maintenance Fund			
- Community Services Fund			
- Water Fund			
- Sewer & Storm Drain Maintenance Fee			
- Other: M2 Grant Funding	0%		1%

A comparison of the expenditures for Fiscal Year 2019-20 and Fiscal Year 2020-21 indicate that there were a few program element expenditures that experienced a 25 percent or greater change. A review of the change in expenditures calculated for municipal activities – environmental performance indicates there was a difference this year in the amount of BMP implementation and covid-19 impacted the activities due to statewide stay at home orders and other orders. In addition, a comparison of fiscal years indicates that there was a decrease in expenditures related to requiring new development BMPs. The decrease appears to be related to the fact that new development and redevelopment within the city has decreased. The decrease in development was also undoubtedly affected by the impacts caused by the covid-19 pandemic including the temporary suspension of work related to new development and construction and the uncertainty it caused within the local and global market place. Lastly, the assessment of the last two fiscal years indicates a notable increase for agency contributions to regional programs. The increases realized during the last fiscal year are directly related to watershed efforts completed by the City and in collaboration with other agencies in implementing programs such as the Water Quality Improvement Plan elements in south Orange County and for the Aliso Creek Watershed, as well as several TMDL implementation elements and other initiatives for north Orange County and for the Newport Bay Watershed.

EXHIBIT 5

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☐
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☐
Ad Hoc Annual Report	☐
Permittee Advisory Group (PAG) for the Development of the Model WQMP	☒

C-2.3 CITY INTERNAL COORDINATION

The responsibilities of City departments for the internal coordination of LIP activities are detailed in the LIP.

C-2.4 FISCAL ANALYSIS

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City. The tables below report costs that include the costs of Permittee operations and contracted services.

CAPITAL COSTS

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

OPERATIONS AND MAINTENANCE COSTS

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS (Land, Large Equipment and Structures)

LIP Program Elements	2009-10 Costs	Projected 2010-11 Costs
Public Projects - BMPs	10,000.00	20,000.00
Construction BMPs for Public Construction Projects	43,000.00	46,000.00
Totals	43,000.00	46,000.00

OPERATION AND MAINTENANCE COSTS

2009-10 Costs	Projected 2010-11 Costs
379,900.00	391,800.00

FUNDING SOURCES

LIP Program Elements	2009-10 Costs	Projected 2010-11 Costs
General Fund	90%	90%
Utility Tax/Charges	%	%
Separate Utility Billing Item	%	%
Gas Tax	%	%
Special Restricted Fund	%	%
- Sanitation Fee	%	%
- Benefit Assessment	%	%
- Fleet Maintenance Fund	%	%
- Community Services Fund	%	%
- Water Fund	%	%
- Sewer & Storm Drain Maintenance Fee	%	%
- Others	10%	10%
Totals	100%	100%

C-2.5 PROGRAM MANAGEMENT MODIFICATIONS

Modifications to this section of the City's LIP are currently being developed, based on a template recently provided by the County.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☒
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☐
Ad Hoc Annual Report	☐
Permittee Advisory Group (PAG) for the Development of the Model WQMP	☒

C-2.3 City Internal Coordination

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP.

C-2.4 Fiscal Analysis

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	2009-10 Expenditures	2010-11 Expenditures	2011-12 Projected Costs
Public Projects - BMPs	$10,000.00	$8,500.00	$8,925.00
Construction BMPs for Public Construction Projects	$43,000.00	$21,000.00	$22,050.00
Totals	$53,000.00	$29,500.00	$30,975.00

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	2009-10 Expenditures	2010-11 Expenditures	2011-12 Projected Costs
Totals	$379,900.00	$395,321.00	$403,879.56

FUNDING SOURCES

LIP Funding Sources	FY 2009-10 Funding Sources	FY 2010-11 Funding Sources	FY 2011-12 Projected Funding Sources
General Fund	90%	95%	95%
Utility Tax/Charges	%	%	%
Separate Utility Billing Item	%	%	%
Gas Tax	%	%	%
Special District Fund	%	%	%
- Sanitation Fee	%	%	%
- Benefit Assessment	%	%	%
- Fleet Maintenance Fund	%	%	%
- Community Services Fund	%	%	%
- Water Fund	%	%	%
- Sewer & Storm Drain Maintenance Fee	%	%	%
- Other	10%	5%	5%
Totals	100%	100%	100%

C-2.5 Program Management Modifications

The Program Management section of the City's LIP has been updated to reflect the current NPDES permit. The updated LIP is included as an attachment.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☒
Legal/Regulatory Authority	☒
Public Education	☒

C-2.3 City Internal Coordination

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP.

C-2.4 Fiscal Analysis

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	2010-2011 Expenditures	2011-2012 Expenditures	2012-13 Projected Costs
Public Projects - BMPs	$8,500.00	$115,000.00	$10,00.00
Construction BMPs for Public Construction Projects	$21,000.00	$45,000.00	$35,000.00
Totals	$29,500.00	$160,000.00	$45,000.00

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	2010-2011 Expenditures	2011-2012 Expenditures	2012-13 Projected Costs
Totals	$395,300.00	$446,500.00	$461,900.00

FUNDING SOURCES

LIP Funding Sources	FY 2010-2011 Funding Sources	FY 2011-2012 Funding Sources	FY 2012-2013 Projected Funding Sources
General Fund	90%	100%	100%
Utility Tax/Charges	%	%	%
Separate Utility Billing Item	%	%	%
Gas Tax	%	%	%
Special District Fund	%	%	%
- Sanitation Fee	%	%	%
- Benefit Assessment	%	%	%
- Fleet Maintenance Fund	%	%	%
- Community Services Fund	%	%	%
- Water Fund	%	%	%
- Sewer & Storm Drain Maintenance Fee	%	%	%
- Other	10%	%	%
Totals	100%	100%	100%

C-2.5 Program Management Modifications

Modifications to the Program Management section of the City's LIP are not planned at this time.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☒
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒

C-2.3 CITY INTERNAL COORDINATION

The responsibilities of City departments for the internal coordination of LIP activities are detailed in the LIP.

C-2.4 FISCAL ANALYSIS

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City. The tables below report costs that include the costs of Permittee operations and contracted services.

CAPITAL COSTS

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

OPERATIONS AND MAINTENANCE COSTS

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS (Land, Large Equipment and Structures)

LIP Program Elements	2011-12 Costs	2012-13 Costs	Projected 2013-14 Costs
Public Projects - BMPs	$115,000.00	$10,000.00	$10,000.00
Construction BMPs for Public Construction Projects	$45,000.00	$35,000.00	$35,000.00
Totals	$160,000.00	$45,000.00	$125,2000.00

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	2011-12 Costs	2012-13 Costs	Projected 2013-14 Costs
Totals	$446,500.00	$462,000.00	$479,138.43

FUNDING SOURCES

LIP Program Elements	2011-12 Costs	2012-13 Costs	Projected 2013-14 Costs
General Fund	90%	100%	100%
Utility Tax/Charges	0%	0%	0%
Separate Utility Billing Item	0%	0%	0%
Gas Tax	0%	0%	0%
Special Restricted Fund	0%	0%	0%
- Sanitation Fee	0%	0%	0%
- Benefit Assessment	0%	0%	0%
- Fleet Maintenance Fund	0%	0%	0%
- Community Services Fund	0%	0%	0%
- Water Fund	0%	0%	0%
- Sewer & Storm Drain Maintenance Fee	0%	0%	0%
- Others	10%	0%	0%
Totals	100%	100%	100%

C-2.5 PROGRAM MANAGEMENT MODIFICATIONS

Modifications to the Program Management section of the City's LIP are not planned at this time.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☒
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒

C-2.3 CITY INTERNAL COORDINATION

The responsibilities of City departments for the internal coordination of LIP activities are detailed in the LIP.

C-2.4 FISCAL ANALYSIS

The Fiscal Analysis includes the following:

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- The City's budget for the current fiscal year; and
- A description of the source of funds.

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CAPITAL COSTS

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

OPERATIONS AND MAINTENANCE COSTS

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS (Land, Large Equipment and Structures)

LIP Program Elements	2012-13 Costs	2013-14 Costs	Projected 2014-15 Costs
Public Projects - BMPs	$10,000.00	$125,000.00	$20,000
Construction BMPs for Public Construction Projects	$35,000.00	$40,000.00	$40,000
Other Capital Projects / Major Equipment Purchases	$0	$55,000.00	
Totals	$45,000.00	$220,000.00	$60,000

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	2012-13 Costs	2013-14 Costs	Projected 2014-15 Costs
Totals	$460,900.00	$476,000.00	$489,000.00

FUNDING SOURCES

LIP Program Elements	2012-13 Costs	2013-14 Costs	Projected 2014-15 Costs
General Fund	100%	100%	100%
Utility Tax/Charges	0%	0%	0%
Separate Utility Billing Item	0%	0%	0%
Gas Tax	0%	0%	0%
Special Restricted Fund	0%	0%	0%
- Sanitation Fee	0%	0%	0%
- Benefit Assessment	0%	0%	0%
- Fleet Maintenance Fund	0%	0%	0%
- Community Services Fund	0%	0%	0%
- Water Fund	0%	0%	0%
- Sewer & Storm Drain Maintenance Fee	0%	0%	0%
- Others	0%	0%	0%
Totals	100%	100%	100%

C-2.5 PROGRAM MANAGEMENT MODIFICATIONS

Modifications to the Program Management section of the City's LIP are not planned at this time.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☒
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒

C-2.3 CITY INTERNAL COORDINATION

The responsibilities of City departments for the internal coordination of LIP activities are detailed in the LIP.

C-2.4 FISCAL ANALYSIS

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

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CAPITAL COSTS

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

OPERATIONS AND MAINTENANCE COSTS

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS (Land, Large Equipment and Structures)

LIP Program Elements	2013-14 Costs	2014-15 Costs	Projected 2015-16 Costs
Public Projects - BMPs	$125,000.00	$9,000.00	$0.00
Construction BMPs for Public Construction Projects	$40,000.00	$28,000.00	$39,000.00
Other Capital Projects / Major Equipment Purchases	$55,000.00	$0.00	$0.00
Totals	$220,000.00	$37,000.00	$39,000.00

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	2013-14 Costs	2014-15 Costs	Projected 2015-16 Costs
Totals	$476,000.00	$497,100.00	$487,100.00

FUNDING SOURCES

LIP Program Elements	2012-13 Costs	2013-14 Costs	Projected 2014-15 Costs
General Fund	100%	100%	100%
Utility Tax/Charges	0%	0%	0%
Separate Utility Billing Item	0%	0%	0%
Gas Tax	0%	0%	0%
Special Restricted Fund	0%	0%	0%
- Sanitation Fee	0%	0%	0%
- Benefit Assessment	0%	0%	0%
- Fleet Maintenance Fund	0%	0%	0%
- Community Services Fund	0%	0%	0%
- Water Fund	0%	0%	0%
- Sewer & Storm Drain Maintenance Fee	0%	0%	0%
- Others	0%	0%	0%
Totals	100%	100%	100%

C-2.5 PROGRAM MANAGEMENT MODIFICATIONS

Modifications to the Program Management section of the City's LIP are not planned at this time.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☒
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒

C-2.3 CITY INTERNAL COORDINATION

The responsibilities of City departments for the internal coordination of LIP activities are detailed in the LIP.

C-2.4 FISCAL ANALYSIS

The Fiscal Analysis includes the following:

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OPERATIONS AND MAINTENANCE COSTS

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS (Land, Large Equipment and Structures)

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
Public Projects - BMPs	$125,000.00	$0.00	$0.00
Construction BMPs for Public Construction Projects	$40,000.00	$10,000.00	$60,000.00
Other Capital Projects / Major Equipment Purchases	$55,000.00	$0.00	$0.00
Totals	$220,000.00	$10,000.00	$60,000.00

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
Totals	$476,000.00	$497,100.00	$487,100.00

FUNDING SOURCES

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
General Fund	100%	100%	100%
Utility Tax/Charges	0%	0%	0%
Separate Utility Billing Item	0%	0%	0%
Gas Tax	0%	0%	0%
Special Restricted Fund	0%	0%	0%
- Sanitation Fee	0%	0%	0%
- Benefit Assessment	0%	0%	0%
- Fleet Maintenance Fund	0%	0%	0%
- Community Services Fund	0%	0%	0%
- Water Fund	0%	0%	0%
- Sewer & Storm Drain Maintenance Fee	0%	0%	0%
- Others	0%	0%	0%
Totals	100%	100%	100%

C-2.5 PROGRAM MANAGEMENT MODIFICATIONS

Modifications to the Program Management section of the City's LIP are not planned at this time.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☒
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒

C-2.3 CITY INTERNAL COORDINATION

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OPERATIONS AND MAINTENANCE COSTS

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

Capital Costs (Land, Large Equipment and Structures)

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
Public Projects - BMPs	$125,000.00	$0.00	$0.00
Construction BMPs for Public Construction Projects	$40,000.00	$15,000.00	$65,000.00
Other Capital Projects / Major Equipment Purchases	$30,000.00	$0.00	$0.00
Totals	$195,000.00	$15,000.00	$65,000.00

Operation and Maintenance Costs

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
Totals	$476,000.00	$500,100.00	$500,100.00

Funding Sources

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
General Fund	100%	100%	100%
Utility Tax/Charges	0%	0%	0%
Separate Utility Billing Item	0%	0%	0%
Gas Tax	0%	0%	0%
Special Restricted Fund	0%	0%	0%
- Sanitation Fee	0%	0%	0%
- Benefit Assessment	0%	0%	0%
- Fleet Maintenance Fund	0%	0%	0%
- Community Services Fund	0%	0%	0%
- Water Fund	0%	0%	0%
- Sewer & Storm Drain Maintenance Fee	0%	0%	0%
- Others	0%	0%	0%
Totals	100%	100%	100%

C-2.5 PROGRAM MANAGEMENT MODIFICATIONS

Modifications to the Program Management section of the City's LIP are not planned at this time.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☒
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒

C-2.3 CITY INTERNAL COORDINATION

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OPERATIONS AND MAINTENANCE COSTS

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

Capital Costs (Land, Large Equipment, and Structures)

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
Public Projects - BMPs	$0.00	$0.00	$0.00
Construction BMPs for Public Construction Projects	$1,500.00	$1,500.00	$1,500.00
Other Capital Projects/Major Equipment Purchases	$0.00	$0.00	$0.00
Total	$1,500.00	$1,500.00	$1,500.00

Operation and Maintenance Costs

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
Supportive of Program Administration (LIP Section 2.0)	$20,000.00	$20,000.00	$20,000.00
Municipal Activities (LIP Section 5.0) Trash & Debris Control (formerly "Litter Control")	$50,000.00	$50,000.00	$50,000.00
Municipal Activities (LIP Section 5.0) Drainage Facility Maintenance	$30,000.00	$30,000.00	$30,000.00
Municipal Activities (LIP Section 5.0) Street Sweeping	$26,000.00	$26,000.00	$26,000.00
Municipal Activities (LIP Section 5.0) Environmental Performance (BMP Implementation)	$0.00	$0.00	$0.00
Municipal Activities (LIP Section 5.0) Pesticide & Fertilizer Management	$5,000.00	$5,000.00	$5,000.00
Public Information (LIP Section 6.0) Nonpoint Source Pollution Awareness	$1,000.00	$1,000.00	$1,000.00
Public Information (LIP Section 6.0) Household Hazardous Waste Collection	$0.00	$0.00	$0.00
Requiring New Development BMPs (Supportive of Planning, etc) (LIP Section 7.0)	$1,000.00	$1,000.00	$1,000.00
Requiring Construction BMPs (Supportive of Plan Check & Inspection) (LIP Section 8.0)	$3,000.00	$3,000.00	$3,000.00
Existing Development (LIP Section 9.0) Industrial/Comm./HOA Inspections	$1,000.00	$1,000.00	$1,000.00
Illicit Connections/Discharge Ident. & Elimination (LIP Section10.0) Investigations	$1,000.00	$1,000.00	$1,000.00
Agency Contribution to Regional Program	$13,000.00	$13,000.00	$13,000.00
Other - Household Hazardous Waste	$0.00	$0.00	$0.00
Other	$0.00	$0.00	$0.00
Total	$151,000.00	$151,000.00	$151,000.00

Funding Sources

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
General Fund	100%	100%	100%
Utility Tax/Charges	0%	0%	0%
Separate Utility Billing Item	0%	0%	0%
Gas Tax	0%	0%	0%
Special Restricted Fund	0%	0%	0%
- Sanitation Fee	0%	0%	0%
- Benefit Assessment	0%	0%	0%
- Fleet Maintenance Fund	0%	0%	0%
- Community Services Fund	0%	0%	0%
- Water Fund	0%	0%	0%
- Sewer & Storm Drain Maintenance Fee	0%	0%	0%
- Others	0%	0%	0%
Total	100%	100%	100%

C-2.5 PROGRAM MANAGEMENT MODIFICATIONS

Modifications to the Program Management section of the City's LIP are not planned at this time.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☒
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒

C-2.3 CITY INTERNAL COORDINATION

The responsibilities of City departments for the internal coordination of LIP activities are detailed in the LIP.

C-2.4 FISCAL ANALYSIS

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
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CAPITAL COSTS

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

OPERATIONS AND MAINTENANCE COSTS

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

Capital Costs (Land, Large Equipment and Structures)

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
Public Projects - BMPs	$0.00	$0.00	$0.00
Construction BMPs for Public Construction Projects	$15,000.00	$15,000.00	$15,000.00
Other Capital Projects / Major Equipment Purchases	$0.00	$0.00	$0.00
Totals	$15,000.00	$15,000.00	$15,000.00

Operation and Maintenance Costs

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
Totals	$500,000.00	$500,000.00	$500,000.00

Funding Sources

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
General Fund	100%	100%	100%
Utility Tax/Charges	0%	0%	0%
Separate Utility Billing Item	0%	0%	0%
Gas Tax	0%	0%	0%
Special Restricted Fund	0%	0%	0%
- Sanitation Fee	0%	0%	0%
- Benefit Assessment	0%	0%	0%
- Fleet Maintenance Fund	0%	0%	0%
- Community Services Fund	0%	0%	0%
- Water Fund	0%	0%	0%
- Sewer & Storm Drain Maintenance Fee	0%	0%	0%
- Others	0%	0%	0%
Totals	100%	100%	100%

C-2.5 PROGRAM MANAGEMENT MODIFICATIONS

Modifications to the Program Management section of the City's LIP are not planned at this time.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☒
Public Education	☒
Water Quality	☒

C-2.3 CITY INTERNAL COORDINATION

The responsibilities of City departments for the internal coordination of LIP activities are detailed in the LIP.

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OPERATIONS AND MAINTENANCE COSTS

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

Capital Costs (Land, Large Equipment, and Structures)

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
Public Projects - BMPs	$0.00	$0.00	$0.00
Construction BMPs for Public Construction Projects	$1,500.00	$1,500.00	$1,500.00
Other Capital Projects/Major Equipment Purchases	$0.00	$0.00	$0.00
Total	$1,500.00	$1,500.00	$1,500.00

Operation and Maintenance Costs

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
Supportive of Program Administration (LIP Section 2.0)	$20,000.00	$20,000.00	$20,000.00
Municipal Activities (LIP Section 5.0) Trash & Debris Control (formerly "Litter Control")	$50,000.00	$50,000.00	$50,000.00
Municipal Activities (LIP Section 5.0) Drainage Facility Maintenance	$30,000.00	$30,000.00	$30,000.00
Municipal Activities (LIP Section 5.0) Street Sweeping	$26,000.00	$26,000.00	$26,000.00
Municipal Activities (LIP Section 5.0) Environmental Performance (BMP Implementation)	$0.00	$0.00	$0.00
Municipal Activities (LIP Section 5.0) Pesticide & Fertilizer Management	$5,000.00	$5,000.00	$5,000.00
Public Information (LIP Section 6.0) Nonpoint Source Pollution Awareness	$1,000.00	$1,000.00	$1,000.00
Public Information (LIP Section 6.0) Household Hazardous Waste Collection	$0.00	$0.00	$0.00
Requiring New Development BMPs (Supportive of Planning, etc) (LIP Section 7.0)	$1,000.00	$1,000.00	$1,000.00
Requiring Construction BMPs (Supportive of Plan Check & Inspection) (LIP Section 8.0)	$3,000.00	$3,000.00	$3,000.00
Existing Development (LIP Section 9.0) Industrial/Comm./HOA Inspections	$1,000.00	$1,000.00	$1,000.00
Illicit Connections/Discharge Ident. & Elimination (LIP Section10.0) Investigations	$1,000.00	$1,000.00	$1,000.00
Agency Contribution to Regional Program	$13,000.00	$13,000.00	$13,000.00
Other - Household Hazardous Waste	$0.00	$0.00	$0.00
Other	$0.00	$0.00	$0.00
Total	$151,000.00	$151,000.00	$151,000.00

Funding Sources

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
General Fund	100%	100%	100%
Utility Tax/Charges	0%	0%	0%
Separate Utility Billing Item	0%	0%	0%
Gas Tax	0%	0%	0%
Special Restricted Fund	0%	0%	0%
- Sanitation Fee	0%	0%	0%
- Benefit Assessment	0%	0%	0%
- Fleet Maintenance Fund	0%	0%	0%
- Community Services Fund	0%	0%	0%
- Water Fund	0%	0%	0%
- Sewer & Storm Drain Maintenance Fee	0%	0%	0%
- Others	0%	0%	0%
Total	100%	100%	100%

C-2.5 PROGRAM MANAGEMENT MODIFICATIONS

Modifications to the Program Management section of the City's LIP are not planned at this time.

C-2.3 CITY INTERNAL COORDINATION

The responsibilities of City departments for the internal coordination of LIP activities are detailed in the LIP.

C-2.4 FISCAL ANALYSIS

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City. The tables below report costs that include the costs of Permittee operations and contracted services.

CAPITAL COSTS

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

OPERATIONS AND MAINTENANCE COSTS

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

Capital Costs (Land, Large Equipment, and Structures)

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
Public Projects - BMPs	$0.00	$0.00	$0.00
Construction BMPs for Public Construction Projects	$1,500.00	$1,500.00	$1,500.00
Other Capital Projects/Major Equipment Purchases	$0.00	$0.00	$0.00
Total	$1,500.00	$1,500.00	$1,500.00

Operation and Maintenance Costs

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
Supportive of Program Administration (LIP Section 2.0)	$20,000.00	$20,000.00	$20,000.00
Municipal Activities (LIP Section 5.0) Trash & Debris Control (formerly "Litter Control")	$50,000.00	$50,000.00	$50,000.00
Municipal Activities (LIP Section 5.0) Drainage Facility Maintenance	$30,000.00	$30,000.00	$30,000.00
Municipal Activities (LIP Section 5.0) Street Sweeping	$26,000.00	$26,000.00	$26,000.00
Municipal Activities (LIP Section 5.0) Environmental Performance (BMP Implementation)	$0.00	$0.00	$0.00
Municipal Activities (LIP Section 5.0) Pesticide & Fertilizer Management	$1,000.00	$1,000.00	$1,000.00
Public Information (LIP Section 6.0) Nonpoint Source Pollution Awareness	$1,000.00	$1,000.00	$1,000.00
Public Information (LIP Section 6.0) Household Hazardous Waste Collection	$0.00	$0.00	$0.00
Requiring New Development BMPs (Supportive of Planning, etc) (LIP Section 7.0)	$1,000.00	$1,000.00	$1,000.00
Requiring Construction BMPs (Supportive of Plan Check & Inspection) (LIP Section 8.0)	$3,000.00	$3,000.00	$3,000.00
Existing Development (LIP Section 9.0) Industrial/Comm./HOA Inspections	$1,000.00	$1,000.00	$1,000.00
Illicit Connections/Discharge Ident. & Elimination (LIP Section10.0) Investigations	$1,000.00	$1,000.00	$1,000.00
Agency Contribution to Regional Program	$13,000.00	$13,000.00	$13,000.00
Other - Household Hazardous Waste	$0.00	$0.00	$0.00
Other	$0.00	$0.00	$0.00
Total	$147,000.00	$147,000.00	$147,000.00

Funding Sources

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
General Fund	100%	100%	100%
Utility Tax/Charges	0%	0%	0%
Separate Utility Billing Item	0%	0%	0%
Gas Tax	0%	0%	0%
Special Restricted Fund	0%	0%	0%
- Sanitation Fee	0%	0%	0%
- Benefit Assessment	0%	0%	0%
- Fleet Maintenance Fund	0%	0%	0%
- Community Services Fund	0%	0%	0%
- Water Fund	0%	0%	0%
- Sewer & Storm Drain Maintenance Fee	0%	0%	0%
- Others	0%	0%	0%
Total	100%	100%	100%

C-2.5 PROGRAM MANAGEMENT MODIFICATIONS

Modifications to the Program Management section of the City's LIP are not planned at this time.

EXHIBIT 6

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☐
Legal/Regulatory Authority	☐
Public Education	☐
Water Quality	☐
Ad Hoc Annual Report	☐
Permittee Advisory Group (PAG) for the Development of the Model WQMP	☐

C-2.3 City Internal Coordination (LIP Section A-2.3)

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2

C-2.4 Fiscal Analysis (LIP Section A-2.4)

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Villa Park. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the LIP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	Costs	Projected Costs
Totals	$1,851	$3,000

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	Costs	Projected Costs
Totals	$132,358	$133,500

FUNDING SOURCES

LIP Funding Sources	FY 2009-10 Funding Sources	FY 2010-11 Projected Funding Sources
General Fund	100 %	100%
Utility Tax/Charges		
Separate Utility Billing Item		
Gas Tax		
Special District Fund		
- Sanitation Fee		
- Benefit Assessment		
- Fleet Maintenance Fund		
- Community Services Fund		
- Water Fund		
- Sewer & Storm Drain Maintenance Fee		
- Other		

C-2.5 Program Management Modifications

The modifications that will be made to the Program Management section of the City's LIP include the following:

During the 10/11 FY the city will update the Program Management element to comply with the fourth term NPDES Permit.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☐
Inspection	☐
Trash & Debris	☐
Legal/Regulatory Authority	☐
Public Education	☐
Water Quality	☐
Ad Hoc Annual Report	☐
Permittee Advisory Group (PAG) for the Development of the Model WQMP	☐

C-2.3 City Internal Coordination (LIP Section A-2.3)

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2

C-2.4 Fiscal Analysis (LIP Section A-2.4)

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Villa Park. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the LIP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	Costs	Projected Costs
Totals	$87,100	$2,000

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	Costs	Projected Costs
Totals	$136,746	$137,500

FUNDING SOURCES

LIP Funding Sources	FY 2010-11 Funding Sources	FY 2010-11 Proposed Funding Sources
General Fund	100 %	100%
Utility Tax/Charges		
Separate Utility Billing Item		
Gas Tax		
Special District Fund		
- Sanitation Fee		
- Benefit Assessment		
- Fleet Maintenance Fund		
- Community Services Fund		
- Water Fund		
- Sewer & Storm Drain Maintenance Fee		
- Other		

C-2.5 Program Management Modifications

The modifications that will be made to the Program Management section of the City's LIP include the following:

During the FY 11/12 the City will continue to update the Program Management element to comply with the fourth term NPDES Permit.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☐
Inspection	☐
Trash & Debris	☐
Legal/Regulatory Authority	☐
Public Education	☐
Water Quality	☐

C-2.3 City Internal Coordination (LIP Section A-2.3)

The responsibilities of City departments for the internal coordination of LIP activities are detailed in LIP Table A- 2.2

C-2.4 Fiscal Analysis (LIP Section A-2.4)

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City of Villa Park. The tables below report costs that include the costs of Permittee operations and contracted services.

Capital Costs

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

Operations and Maintenance Costs

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS
(Land, Large Equipment and Structures)

LIP Program Elements	2010-11 Expenditures	2011-12 Expenditures	2012-13 Projected Costs
Public Projects – BMPs	$700.00	$2,130.00	$2,000.00
Construction BMPs for Public Construction Projects	$0.00	$0.00	$0.00
Other Capital Projects / Major Equipment Purchases	$86,400.00	$0.00	$0.00
Totals	**$87,100.00**	**$2,130.00**	**$2,000.00**

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	2010-11 Expenditures	2011-12 Expenditures	2012-13 Projected Costs
Supportive of Program Administration (LIP Section 2.0)	$17,318.00	$20,000.00	$20,000.00
Municipal Activities (LIP Section 5.0) Trash & Debris Control (formerly "Litter Control")	$31,768.00	$31,114.00	$32,000.00
Municipal Activities (LIP Section 5.0) Drainage Facility Maintenance	$23,545.00	$23,600.00	$24,000.00
Municipal Activities (LIP Section 5.0) Street Sweeping	$35,417.00	$17,709.00	$0.00
Municipal Activities (LIP Section 5.0) Environmental Performance (BMP Implementation)	$0.00	$0.00	$0.00
Municipal Activities (LIP Section 5.0) Pesticide & Fertilizer Management	$3,354.00	$1,941.00	$2,000.00
Public Information (LIP Section 6.0) Nonpoint Source Pollution Awareness	$692.00	$533.00	$500.00
Public Information (LIP Section 6.0) Household Hazardous Waste Collection	$954.00	$999.00	$1,000.00
Requiring New Development	$0.00	$0.00	$0.00

BMPs (Supportive of Planning, etc) (LIP Section 7.0)			
Requiring Construction BMPs (Supportive of Plan Check & Inspection) (LIP Section 8.0)	$6,568.00	$4,034.00	$4,000.00
Existing Development (LIP Section 9.0) Industrial/Comm./HOA Inspections	$1,200.00	$1,200.00	$1,200.00
Illicit Connections/Discharge Ident. & Elimination (LIP Section10.0) Investigations	$1,318.00	$799.00	$1,000.00
Agency Contribution to Regional Program	$14,612.00	$14,928.00	$15,000.00
Other - Household Hazardous Waste	$0.00	$0.00	$0.00
Totals	**$136,746.00**	**$116,857.00**	**$100,700.00**

FUNDING SOURCES

LIP Funding Sources	FY 10-11 Funding Sources	FY 2011-12 Funding Sources	FY 2012-13 Projected Funding Sources
General Fund	100%	100%	100%
Utility Tax/Charges			
Separate Utility Billing Item			
Gas Tax			
Special District Fund			
- Sanitation Fee			
- Benefit Assessment			
- Fleet Maintenance Fund			
- Community Services Fund			
- Water Fund			
- Sewer & Storm Drain Maintenance Fee			
- Other			

LIP/PEA	☐
Inspection	☐
Trash & Debris	☐
Legal/Regulatory Authority	☐
Public Education	☐
Water Quality	☐

C-2.3 CITY INTERNAL COORDINATION

The responsibilities of City departments for the internal coordination of LIP activities are detailed in the LIP.

C-2.4 FISCAL ANALYSIS

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City. The tables below report costs that include the costs of Permittee operations and contracted services.

CAPITAL COSTS

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

OPERATIONS AND MAINTENANCE COSTS

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS (Land, Large Equipment and Structures)

LIP Program Elements	2011-12 Costs	2012-13 Costs	Projected 2013-14 Costs
Public Projects - BMPs	$2,130.00	$0.00	$2,000.00
Construction BMPs for Public Construction Projects	$0.00	$1,730.20	$0.00
Other Capital Projects / Major Equipment Purchases	$0.00	$0.00	$0.00
TOTALS	**$2,130.00**	**$1,730.20**	**$2,000.00**

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	2011-12 Costs	2012-13 Costs	Projected 2013-14 Costs
Supportive of Program Administration (LIP Section 2.0)	$20,000.00	$19,577.64	$19,600.00
Municipal Activities (LIP Section 5.0) Trash & Debris Control (formerly "Litter Control")	$31,114.00	$33,270.72	$33,500.00
Municipal Activities (LIP Section 5.0) Drainage Facility Maintenance	$23,600.00	$27,935.14	$28,000.00
Municipal Activities (LIP Section 5.0) Street Sweeping	$17,709.00	$0.00	$0.00
Municipal Activities (LIP Section 5.0) Environmental Performance (BMP Implementation)	$0.00	$0.00	$0.00
Municipal Activities (LIP Section 5.0) Pesticide & Fertilizer Management	$1,941.00	$2,586.35	$2,600.00
Public Information (LIP Section 6.0) Nonpoint Source Pollution Awareness	$533.00	$1,085.56	$1,100.00
Public Information (LIP Section 6.0) Household Hazardous Waste Collection	$999.00	$513.05	$500.00

Requiring New Development BMPs (Supportive of Planning, etc) (LIP Section 7.0)	$0.00	$771.89	$0.00
Requiring Construction BMPs (Supportive of Plan Check & Inspection) (LIP Section 8.0)	$4,034.00	$3,499.65	$3,500.00
Existing Development (LIP Section 9.0) Industrial/Comm./HOA Inspections	$1,200.00	$633.36	$700.00
Illicit Connections/Discharge Ident. & Elimination (LIP Section10.0) Investigations	$799.00	$1,450.42	$1,500.00
Agency Contribution to Regional Program	$14,928.00	$14,659.82	$14,700.00
Other - Household Hazardous Waste	$0.00	$0.00	$0.00
Other	$0.00	0	0
TOTALS	**$116,857.00**	$105,983.60	$105,700.00

FUNDING SOURCES

LIP Program Elements	2011-12 Costs	2012-13 Costs	Projected 2013-14 Costs
General Fund	100%	100%	100%
Utility Tax/Charges	0%	0%	0%
Separate Utility Billing Item	0%	0%	0%
Gas Tax	0%	0%	0%
Special Restricted Fund	0%	0%	0%
- Sanitation Fee	0%	0%	0%
- Benefit Assessment	0%	0%	0%
- Fleet Maintenance Fund	0%	0%	0%
- Community Services Fund	0%	0%	0%
- Water Fund	0%	0%	0%
- Sewer & Storm Drain Maintenance Fee	0%	0%	0%
- Others	0%	0%	0%
Totals	100%	100%	100%

C-2.5 PROGRAM MANAGEMENT MODIFICATIONS

Modifications to the Program Management section of the City's LIP are not planned at this time.

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☒
Legal/Regulatory Authority	☐
Public Education	☐
Water Quality	☐

C-2.3 CITY INTERNAL COORDINATION

The responsibilities of City departments for the internal coordination of LIP activities are detailed in the LIP.

C-2.4 FISCAL ANALYSIS

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City. The tables below report costs that include the costs of Permittee operations and contracted services.

CAPITAL COSTS

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

OPERATIONS AND MAINTENANCE COSTS

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

SECTION C-2, PROGRAM MANAGEMENT

CAPITAL COSTS (Land, Large Equipment and Structures)

LIP Program Elements	2012-13 Costs	2013-14 Costs	Projected 2014-15
Public Projects - BMPs	$0.00	$0.00	$0.00
Construction BMPs for Public Construction Projects	$1,730	$1,591	$1,600
Other Capital Projects/Major Equipment Purchases	$0.00	$0.00	$0.00
TOTALS	**$1,730**	**$1,591**	**$1,600**

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	2012-13 Costs	2013-14 Costs	Projected 2014-15 Costs
Supportive of Program Administration (LIP Section 2.0)	$19,577.64	$19,871.55	$20,600.00
Municipal Activities (LIP Section 5.0) Trash & Debris Control (formerly "Litter Control")	$33,270.72	$33,170.17	$33,990.00
Municipal Activities (LIP Section 5.0) Drainage Facility Maintenance	$27,935.14	$26,330.81	$26,780.00
Municipal Activities (LIP Section 5.0) Street Sweeping	$0.00	$0.00	$0.00
Municipal Activities (LIP Section 5.0) Environmental Performance (BMP Implementation)	$0.00	$0.00	$0.00
Municipal Activities (LIP Section 5.0) Pesticide & Fertilizer Management	$2,586.35	$2,830.57	$3,090.00
Public Information (LIP Section 6.0) Nonpoint Source Pollution Awareness	$1,085.56	$438.94	$0.00
Public Information (LIP Section 6.0) Household Hazardous Waste Collection	$513.05	$0.00	$0.00
Requiring New Development BMPs (Supportive of Planning, etc) (LIP Section 7.0)	$771.89	$465.86	$0.00

Requiring Construction BMPs (Supportive of Plan Check & Inspection) (LIP Section 8.0)	$3,499.65	$2,069.08	$2,060.00
Existing Development (LIP Section 9.0) Industrial/Comm./HOA Inspections	$633.36	$680.75	$1,030.00
Illicit Connections/Discharge Ident. & Elimination (LIP Section10.0) Investigations	$1,450.42	$373.72	$0.00
Agency Contribution to Regional Program	$14,659.82	$15,017.46	$15,450.00
Other - Household Hazardous Waste	$0.00	$0.00	$0.00
Other	0	$0.00	$0.00
TOTALS	**$105,983.60**	**$101,248.91**	**$103,000.00**

FUNDING SOURCES

LIP Program Elements	2012-13 Costs	2013-14 Costs	Projected 2014-15 Costs
General Fund	100%	100%	100%
Utility Tax/Charges	0%	0%	0%
Separate Utility Billing Item	0%	0%	0%
Gas Tax	0%	0%	0%
Special Restricted Fund	0%	0%	0%
- Sanitation Fee	0%	0%	0%
- Benefit Assessment	0%	0%	0%
- Fleet Maintenance Fund	0%	0%	0%
- Community Services Fund	0%	0%	0%
- Water Fund	0%	0%	0%
- Sewer & Storm Drain Maintenance Fee	0%	0%	0%
- Others	0%	0%	0%
Totals	100%	100%	100%

C-2.5 PROGRAM MANAGEMENT MODIFICATIONS

Modifications to the Program Management section of the City's LIP are not planned at this time.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒

C-2.3 CITY INTERNAL COORDINATION

The responsibilities of City departments for the internal coordination of LIP activities are detailed in the LIP.

C-2.4 FISCAL ANALYSIS

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City. The tables below report costs that include the costs of Permittee operations and contracted services.

CAPITAL COSTS

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

OPERATIONS AND MAINTENANCE COSTS

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS (Land, Large Equipment and Structures)

LIP Program Elements	2013-14 Costs	2014-15 Costs	Projected 2015-16
Public Projects - BMPs	$0.00	$0.00	$0.00
Construction BMPs for Public Construction Projects	$1,591	$1,153	$1,700
Other Capital Projects/Major Equipment Purchases	$0.00	$0.00	$0.00
TOTALS	**$1,591**	**$1,153**	**$1,700**

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	2013-14 Costs	2014-15 Costs	Projected 2015-16 Costs
Supportive of Program Administration (LIP Section 2.0)	$19,871.55	$10,745.00	$20,000.00
Municipal Activities (LIP Section 5.0) Trash & Debris Control (formerly "Litter Control")	$33,170.17	$46,988.00	$48,000.00
Municipal Activities (LIP Section 5.0) Drainage Facility Maintenance	$26,330.81	$27,387.00	$29,000.00
Municipal Activities (LIP Section 5.0) Street Sweeping	$0.00	$25,000.00	$25,750.00
Municipal Activities (LIP Section 5.0) Environmental Performance (BMP Implementation)	$0.00	$0.00	$0.00
Municipal Activities (LIP Section 5.0) Pesticide & Fertilizer Management	$2,830.57	$5,795.00	$5,000.00
Public Information (LIP Section 6.0) Nonpoint Source Pollution Awareness	$438.94	$989.00	$1,000.00
Public Information (LIP Section 6.0) Household Hazardous Waste Collection	$0.00	$0.00	$0.00
Requiring New Development BMPs (Supportive of Planning, etc) (LIP Section 7.0)	$465.86	$560.00	$700.00
Requiring Construction BMPs (Supportive of Plan Check & Inspection) (LIP Section 8.0)	$2,069.08	$2,644.00	$2,800.00
Existing Development (LIP Section 9.0) Industrial/Comm./HOA Inspections	$680.75	$71.25	$73.39
Illicit Connections/Discharge Ident. & Elimination (LIP Section10.0) Investigations	$373.72	$989.00	$1,000.00
Agency Contribution to Regional Program	$15,017.46	$16,109.00	$17,000.00
Other - Household Hazardous Waste	$0.00	$0.00	$0.00
Other	$0.00	$0.00	$0.00
TOTALS	**$101,248.91**	**$137,277.25**	**$150,323.39**

FUNDING SOURCES

LIP Program Elements	2013-14 Costs	2014-15 Costs	Projected 2015-16 Costs
General Fund	100%	95%	94%
Utility Tax/Charges	0%	0%	0%
Separate Utility Billing Item	0%	0%	0%
Gas Tax	0%	0%	0%
Special Restricted Fund	0%	0%	0%
- Sanitation Fee	0%	0%	0%
- Benefit Assessment	0%	0%	0%
- Fleet Maintenance Fund	0%	0%	0%
- Community Services Fund	0%	0%	0%
- Water Fund	0%	0%	0%
- Sewer & Storm Drain Maintenance Fee	0%	5%	6%
- Others	0%	0%	0%
Totals	100%	100%	100%

C-2.5 PROGRAM MANAGEMENT MODIFICATIONS

Modifications to the Program Management section of the City's LIP are not planned at this time.

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒

C-2.3 CITY INTERNAL COORDINATION

The responsibilities of City departments for the internal coordination of LIP activities are detailed in the LIP.

C-2.4 FISCAL ANALYSIS

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City. The tables below report costs that include the costs of Permittee operations and contracted services.

CAPITAL COSTS

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

OPERATIONS AND MAINTENANCE COSTS

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

CAPITAL COSTS (Land, Large Equipment and Structures)

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
Public Projects - BMPs	$0.00	$0.00	$0.00
Construction BMPs for Public Construction Projects	$1,000.00	$3,200.00	$1,500.00
Other Capital Projects/Major Equipment Purchases	$0.00	$0.00	$0.00
TOTALS	**$1,000.00**	**$3,200.00**	**$1,500.00**

OPERATION AND MAINTENANCE COSTS

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
Supportive of Program Administration (LIP Section 2.0)	$11,000.00	$25,000.00	$25,000.00
Municipal Activities (LIP Section 5.0) Trash & Debris Control (formerly "Litter Control")	$47,000.00	$47,000.00	$49,440.00
Municipal Activities (LIP Section 5.0) Drainage Facility Maintenance	$27,000.00	$22,400.00	$25,000.00
Municipal Activities (LIP Section 5.0) Street Sweeping	$25,000.00	$26,000.00	$26,780.00
Municipal Activities (LIP Section 5.0) Environmental Performance (BMP Implementation)	$0.00	$0.00	$0.00
Municipal Activities (LIP Section 5.0) Pesticide & Fertilizer Management	$6,000.00	$3,100.00	$5,000.00
Public Information (LIP Section 6.0) Nonpoint Source Pollution Awareness	$1,000.00	$1,000.00	$1,030.00
Public Information (LIP Section 6.0) Household Hazardous Waste Collection	$0.00	$0.00	$0.00
Requiring New Development BMPs (Supportive of Planning, etc) (LIP Section 7.0)	$500.00	$3,000.00	$721.00
Requiring Construction BMPs (Supportive of Plan Check & Inspection) (LIP Section 8.0)	$2,500.00	$2,500.00	$2,500.00
Existing Development (LIP Section 9.0) Industrial/Comm./HOA Inspections	$100.00	$100.00	$103.00
Illicit Connections/Discharge Ident. & Elimination (LIP Section10.0) Investigations	$1,000.00	$1,000.00	$1,030.00
Agency Contribution to Regional Program	$16,109.00	$12,516.26	$12,912.18
Other - Household Hazardous Waste	$0.00	$0.00	$0.00
Other	$0.00	$0.00	$0.00
TOTALS	**$137,209.00**	**$143,616.26**	**$149,516.18**

FUNDING SOURCES

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
General Fund	100%	100%	100%
Utility Tax/Charges	0%	0%	0%
Separate Utility Billing Item	0%	0%	0%
Gas Tax	0%	0%	0%
Special Restricted Fund	0%	0%	0%
- Sanitation Fee	0%	0%	0%
- Benefit Assessment	0%	0%	0%
- Fleet Maintenance Fund	0%	0%	0%
- Community Services Fund	0%	0%	0%
- Water Fund	0%	0%	0%
- Sewer & Storm Drain Maintenance Fee	0%	0%	0%
- Others	0%	0%	0%
Totals	100%	100%	100%

C-2.5 PROGRAM MANAGEMENT MODIFICATIONS

Modifications to the Program Management section of the City's LIP are not planned at this time.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☒
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒

C-2.3 CITY INTERNAL COORDINATION

The responsibilities of City departments for the internal coordination of LIP activities are detailed in the LIP.

C-2.4 FISCAL ANALYSIS

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
- The City's budget for the current fiscal year; and
- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City. The tables below report costs that include the costs of Permittee operations and contracted services.

CAPITAL COSTS

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

OPERATIONS AND MAINTENANCE COSTS

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

Capital Costs (Land, Large Equipment, and Structures)

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
Public Projects - BMPs	$0.00	$0.00	$0.00
Construction BMPs for Public Construction Projects	$1,500.00	$1,500.00	$1,500.00
Other Capital Projects/Major Equipment Purchases	$0.00	$0.00	$0.00
Total	$1,500.00	$1,500.00	$1,500.00

Operation and Maintenance Costs

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
Supportive of Program Administration (LIP Section 2.0)	$20,000.00	$20,000.00	$20,000.00
Municipal Activities (LIP Section 5.0) Trash & Debris Control (formerly "Litter Control")	$50,000.00	$50,000.00	$50,000.00
Municipal Activities (LIP Section 5.0) Drainage Facility Maintenance	$30,000.00	$30,000.00	$30,000.00
Municipal Activities (LIP Section 5.0) Street Sweeping	$26,000.00	$26,000.00	$26,000.00
Municipal Activities (LIP Section 5.0) Environmental Performance (BMP Implementation)	$0.00	$0.00	$0.00
Municipal Activities (LIP Section 5.0) Pesticide & Fertilizer Management	$5,000.00	$5,000.00	$5,000.00
Public Information (LIP Section 6.0) Nonpoint Source Pollution Awareness	$1,000.00	$1,000.00	$1,000.00
Public Information (LIP Section 6.0) Household Hazardous Waste Collection	$0.00	$0.00	$0.00
Requiring New Development BMPs (Supportive of Planning, etc) (LIP Section 7.0)	$1,000.00	$1,000.00	$1,000.00
Requiring Construction BMPs (Supportive of Plan Check & Inspection) (LIP Section 8.0)	$3,000.00	$3,000.00	$3,000.00
Existing Development (LIP Section 9.0) Industrial/Comm./HOA Inspections	$1,000.00	$1,000.00	$1,000.00
Illicit Connections/Discharge Ident. & Elimination (LIP Section10.0) Investigations	$1,000.00	$1,000.00	$1,000.00
Agency Contribution to Regional Program	$13,000.00	$13,000.00	$13,000.00
Other - Household Hazardous Waste	$0.00	$0.00	$0.00
Other	$0.00	$0.00	$0.00
Total	$151,000.00	$151,000.00	$151,000.00

Funding Sources

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
General Fund	100%	100%	100%
Utility Tax/Charges	0%	0%	0%
Separate Utility Billing Item	0%	0%	0%
Gas Tax	0%	0%	0%
Special Restricted Fund	0%	0%	0%
- Sanitation Fee	0%	0%	0%
- Benefit Assessment	0%	0%	0%
- Fleet Maintenance Fund	0%	0%	0%
- Community Services Fund	0%	0%	0%
- Water Fund	0%	0%	0%
- Sewer & Storm Drain Maintenance Fee	0%	0%	0%
- Others	0%	0%	0%
Total	100%	100%	100%

C-2.5 PROGRAM MANAGEMENT MODIFICATIONS

Modifications to the Program Management section of the City's LIP are not planned at this time.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☒
Legal/Regulatory Authority	☒
Public Education	☒
Water Quality	☒

C-2.3 CITY INTERNAL COORDINATION

The responsibilities of City departments for the internal coordination of LIP activities are detailed in the LIP.

C-2.4 FISCAL ANALYSIS

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
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- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City. The tables below report costs that include the costs of Permittee operations and contracted services.

CAPITAL COSTS

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

OPERATIONS AND MAINTENANCE COSTS

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

Capital Costs (Land, Large Equipment, and Structures)

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
Public Projects - BMPs	$0.00	$0.00	$0.00
Construction BMPs for Public Construction Projects	$1,500.00	$1,500.00	$1,500.00
Other Capital Projects/Major Equipment Purchases	$0.00	$0.00	$0.00
Total	$1,500.00	$1,500.00	$1,500.00

Operation and Maintenance Costs

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
Supportive of Program Administration (LIP Section 2.0)	$20,000.00	$20,000.00	$20,000.00
Municipal Activities (LIP Section 5.0) Trash & Debris Control (formerly "Litter Control")	$50,000.00	$50,000.00	$50,000.00
Municipal Activities (LIP Section 5.0) Drainage Facility Maintenance	$30,000.00	$30,000.00	$30,000.00
Municipal Activities (LIP Section 5.0) Street Sweeping	$26,000.00	$26,000.00	$26,000.00
Municipal Activities (LIP Section 5.0) Environmental Performance (BMP Implementation)	$0.00	$0.00	$0.00
Municipal Activities (LIP Section 5.0) Pesticide & Fertilizer Management	$5,000.00	$5,000.00	$5,000.00
Public Information (LIP Section 6.0) Nonpoint Source Pollution Awareness	$1,000.00	$1,000.00	$1,000.00
Public Information (LIP Section 6.0) Household Hazardous Waste Collection	$0.00	$0.00	$0.00
Requiring New Development BMPs (Supportive of Planning, etc) (LIP Section 7.0)	$1,000.00	$1,000.00	$1,000.00
Requiring Construction BMPs (Supportive of Plan Check & Inspection) (LIP Section 8.0)	$3,000.00	$3,000.00	$3,000.00
Existing Development (LIP Section 9.0) Industrial/Comm./HOA Inspections	$1,000.00	$1,000.00	$1,000.00
Illicit Connections/Discharge Ident. & Elimination (LIP Section10.0) Investigations	$1,000.00	$1,000.00	$1,000.00
Agency Contribution to Regional Program	$13,000.00	$13,000.00	$13,000.00
Other - Household Hazardous Waste	$0.00	$0.00	$0.00
Other	$0.00	$0.00	$0.00
Total	$151,000.00	$151,000.00	$151,000.00

Funding Sources

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
General Fund	100%	100%	100%
Utility Tax/Charges	0%	0%	0%
Separate Utility Billing Item	0%	0%	0%
Gas Tax	0%	0%	0%
Special Restricted Fund	0%	0%	0%
- Sanitation Fee	0%	0%	0%
- Benefit Assessment	0%	0%	0%
- Fleet Maintenance Fund	0%	0%	0%
- Community Services Fund	0%	0%	0%
- Water Fund	0%	0%	0%
- Sewer & Storm Drain Maintenance Fee	0%	0%	0%
- Others	0%	0%	0%
Total	100%	100%	100%

C-2.5 PROGRAM MANAGEMENT MODIFICATIONS

Modifications to the Program Management section of the City's LIP are not planned at this time.

In addition, City representatives participated in the following sub-committees and task forces:

Committee/Task Force	Attended
LIP/PEA	☒
Inspection	☒
Trash & Debris	☒
Public Education	☒
Water Quality	☒

C-2.3 CITY INTERNAL COORDINATION

The responsibilities of City departments for the internal coordination of LIP activities are detailed in the LIP.

C-2.4 FISCAL ANALYSIS

The Fiscal Analysis includes the following:

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CAPITAL COSTS

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OPERATIONS AND MAINTENANCE COSTS

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

Capital Costs (Land, Large Equipment, and Structures)

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
Public Projects - BMPs	$0.00	$0.00	$0.00
Construction BMPs for Public Construction Projects	$1,500.00	$1,500.00	$1,500.00
Other Capital Projects/Major Equipment Purchases	$0.00	$0.00	$0.00
Total	$1,500.00	$1,500.00	$1,500.00

Operation and Maintenance Costs

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
Supportive of Program Administration (LIP Section 2.0)	$20,000.00	$20,000.00	$20,000.00
Municipal Activities (LIP Section 5.0) Trash & Debris Control (formerly "Litter Control")	$50,000.00	$50,000.00	$50,000.00
Municipal Activities (LIP Section 5.0) Drainage Facility Maintenance	$30,000.00	$30,000.00	$30,000.00
Municipal Activities (LIP Section 5.0) Street Sweeping	$26,000.00	$26,000.00	$26,000.00
Municipal Activities (LIP Section 5.0) Environmental Performance (BMP Implementation)	$0.00	$0.00	$0.00
Municipal Activities (LIP Section 5.0) Pesticide & Fertilizer Management	$5,000.00	$5,000.00	$5,000.00
Public Information (LIP Section 6.0) Nonpoint Source Pollution Awareness	$1,000.00	$1,000.00	$1,000.00
Public Information (LIP Section 6.0) Household Hazardous Waste Collection	$0.00	$0.00	$0.00
Requiring New Development BMPs (Supportive of Planning, etc) (LIP Section 7.0)	$1,000.00	$1,000.00	$1,000.00
Requiring Construction BMPs (Supportive of Plan Check & Inspection) (LIP Section 8.0)	$3,000.00	$3,000.00	$3,000.00
Existing Development (LIP Section 9.0) Industrial/Comm./HOA Inspections	$1,000.00	$1,000.00	$1,000.00
Illicit Connections/Discharge Ident. & Elimination (LIP Section10.0) Investigations	$1,000.00	$1,000.00	$1,000.00
Agency Contribution to Regional Program	$13,000.00	$13,000.00	$13,000.00
Other - Household Hazardous Waste	$0.00	$0.00	$0.00
Other	$0.00	$0.00	$0.00
Total	$151,000.00	$151,000.00	$151,000.00

Funding Sources

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
General Fund	100%	100%	100%
Utility Tax/Charges	0%	0%	0%
Separate Utility Billing Item	0%	0%	0%
Gas Tax	0%	0%	0%
Special Restricted Fund	0%	0%	0%
- Sanitation Fee	0%	0%	0%
- Benefit Assessment	0%	0%	0%
- Fleet Maintenance Fund	0%	0%	0%
- Community Services Fund	0%	0%	0%
- Water Fund	0%	0%	0%
- Sewer & Storm Drain Maintenance Fee	0%	0%	0%
- Others	0%	0%	0%
Total	100%	100%	100%

C-2.5 PROGRAM MANAGEMENT MODIFICATIONS

Modifications to the Program Management section of the City's LIP are not planned at this time.

C-2.3 CITY INTERNAL COORDINATION

The responsibilities of City departments for the internal coordination of LIP activities are detailed in the LIP.

C-2.4 FISCAL ANALYSIS

The Fiscal Analysis includes the following:

- The City's expenditures for the previous fiscal year;
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- A description of the source of funds.

The Fiscal Analysis is intended to depict all NPDES compliance related costs for the City. The tables below report costs that include the costs of Permittee operations and contracted services.

CAPITAL COSTS

Capital costs include any capital expended for each one of the DAMP elements. This would consist of any land, large equipment, and structures.

OPERATIONS AND MAINTENANCE COSTS

Operations and Maintenance costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order.

Capital Costs (Land, Large Equipment, and Structures)

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
Public Projects - BMPs	$0.00	$0.00	$0.00
Construction BMPs for Public Construction Projects	$1,500.00	$1,500.00	$1,500.00
Other Capital Projects/Major Equipment Purchases	$0.00	$0.00	$0.00
Total	$1,500.00	$1,500.00	$1,500.00

Operation and Maintenance Costs

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
Supportive of Program Administration (LIP Section 2.0)	$20,000.00	$20,000.00	$20,000.00
Municipal Activities (LIP Section 5.0) Trash & Debris Control (formerly "Litter Control")	$50,000.00	$50,000.00	$50,000.00
Municipal Activities (LIP Section 5.0) Drainage Facility Maintenance	$30,000.00	$30,000.00	$30,000.00
Municipal Activities (LIP Section 5.0) Street Sweeping	$26,000.00	$26,000.00	$26,000.00
Municipal Activities (LIP Section 5.0) Environmental Performance (BMP Implementation)	$0.00	$0.00	$0.00
Municipal Activities (LIP Section 5.0) Pesticide & Fertilizer Management	$1,000.00	$1,000.00	$1,000.00
Public Information (LIP Section 6.0) Nonpoint Source Pollution Awareness	$1,000.00	$1,000.00	$1,000.00
Public Information (LIP Section 6.0) Household Hazardous Waste Collection	$0.00	$0.00	$0.00
Requiring New Development BMPs (Supportive of Planning, etc) (LIP Section 7.0)	$1,000.00	$1,000.00	$1,000.00
Requiring Construction BMPs (Supportive of Plan Check & Inspection) (LIP Section 8.0)	$3,000.00	$3,000.00	$3,000.00
Existing Development (LIP Section 9.0) Industrial/Comm./HOA Inspections	$1,000.00	$1,000.00	$1,000.00
Illicit Connections/Discharge Ident. & Elimination (LIP Section10.0) Investigations	$1,000.00	$1,000.00	$1,000.00
Agency Contribution to Regional Program	$13,000.00	$13,000.00	$13,000.00
Other - Household Hazardous Waste	$0.00	$0.00	$0.00
Other	$0.00	$0.00	$0.00
Total	$147,000.00	$147,000.00	$147,000.00

Funding Sources

LIP Program Elements	Prior Reporting Year Costs	Reporting Year Costs	Projected Costs for Next Reporting Year
General Fund	100%	100%	100%
Utility Tax/Charges	0%	0%	0%
Separate Utility Billing Item	0%	0%	0%
Gas Tax	0%	0%	0%
Special Restricted Fund	0%	0%	0%
- Sanitation Fee	0%	0%	0%
- Benefit Assessment	0%	0%	0%
- Fleet Maintenance Fund	0%	0%	0%
- Community Services Fund	0%	0%	0%
- Water Fund	0%	0%	0%
- Sewer & Storm Drain Maintenance Fee	0%	0%	0%
- Others	0%	0%	0%
Total	100%	100%	100%

C-2.5 PROGRAM MANAGEMENT MODIFICATIONS

Modifications to the Program Management section of the City's LIP are not planned at this time.

DECLARATION OF SEUNG YANG, P.E.

DECLARATION OF SEUNG YANG, CITY ENGINEER, CITY OF COSTA MESA

I, SEUNG YANG, hereby declare and state as follows:

1. I am the City Engineer for the City of Costa Mesa ("City"). In that capacity, I have responsibility for supervising compliance of the City and its departments with the applicable requirements of Order No. R8-2009-0030, the National Pollutant Discharge Elimination System ("NPDES") permit ("2009 Permit") issued to the City and other cities within Orange County regulating discharging from the municipal separate storm sewer system ("MS4").

2. In that capacity, I am familiar with the requirements of the 2009 permit applicable to the City and also the source of funds utilized by the City to pay for those requirements.

3. As required by the 2009 Permit, each year the City must prepare an annual Program Effectiveness Assessment ("PEA"). The City submits its PEA to the Orange County Stormwater Program, and I understand that the Program in turn provides the PEA to the Santa Ana Water Board and U.S. EPA, Region 9, as required by the 2009 Permit.

4. I am aware that each PEA must be accompanied by a "Signed Certified Statement" that certifies "under penalty of law" that the PEA and all attachments were prepared under the signatory's "direction or supervision" and further that, based on the signatory's inquiry of responsible persons, "the information submitted, is, to the best of [the signatory's] knowledge and belief, true, accurate and complete." I am further aware that the Statement further provides that the signatory is "aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

5. One section of the PEA, "Fiscal Analysis," requires among other items, information on funding sources utilized by the City for "all NPDES compliance related costs" for the City during the fiscal year covered by the PEA. I understand this to encompass all costs incurred by the City in complying with the requirements of the 2009 Permit.

6. Funding sources are listed in the PEA form under various categories, including "General Fund." The category "General Fund" means general fund revenues of the City.

7. I have reviewed what I have been informed are, and which appear to be, excerpts of PEAs prepared by the City for fiscal years between 2010-2011 and 2020-2021, and which include the fiscal analysis section of the PEA, including information on funding sources.

8. Based on my knowledge of the funding sources utilized by the City to pay for requirements of the 2009 Permit, as well as my review of the PEA excerpts, I declare, and am further informed and believe, that the City utilized its General Fund for 100 percent of the costs of complying with the 2009 Permit during the period 2009-2010 through 2020-2021.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed October 17, 2022 at Costa Mesa, California.

S. Yang

Seung Yang, P.E.
City Engineer
City of Costa Mesa

DECLARATION OF THOMAS LO

DECLARATION OF THOMAS LO

I, Thomas Lo, hereby declare and state as follows:

1. I am the Water Quality Administrator for the City of Irvine ("City"), which is within the City's Community Development Department. In that capacity, I have responsibility for supervising compliance of the City and its departments with respect to the applicable requirements of Order No. R8-2009-0030, the National Pollutant Discharge Elimination System ("NPDES") permit ("2009 Permit") issued to the City and other cities within Orange County regulating discharging from the municipal separate storm sewer system ("MS4").

2. In that capacity, I am familiar with the requirements of the 2009 Permit applicable to the City and also the source of funds utilized by the City to pay for those requirements since I am involved with the budgeting process in my role within the Community Development Department.

3. As required by the 2009 Permit, each year the City must prepare an annual Program Effectiveness Assessment ("PEA"). The City submits its PEA to the Orange County Stormwater Program ("Program"), and I understand that the Program in turn provides the PEA to the Santa Ana Water Regional Water Quality Control Board and U.S. EPA, Region 9, as required by the 2009 Permit.

4. I am aware that each PEA must be accompanied by a "Signed Certified Statement" that certifies "under penalty of law" that the PEA and all attachments were prepared under the signatory's "direction or supervision" and further that, based on the signatory's inquiry of responsible persons, "the information submitted, is, to the best of [the signatory's] knowledge and belief, true, accurate and complete." I am further aware that the Statement further provides

that the signatory is "aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

5. One section of the PEA, "Fiscal Analysis," requires among other items, information on funding sources utilized by the City for "all NPDES compliance related costs" for the City during the fiscal year covered by the PEA. I understand this to encompass all costs incurred by the City in complying with the requirements of the 2009 Permit.

6. Funding sources are listed in the PEA form under various categories, including "General Fund." The category "General Fund" means general fund revenues of the City.

7. I have reviewed what I have been informed are, and which appear to be, excerpts of PEAs prepared by the City for fiscal years between 2010-2011 and 2020-2021, and which include the fiscal analysis section of the PEA, including information on funding sources.

8. Based on my knowledge of the funding sources utilized by the City to pay for requirements of the 2009 Permit, as well as my review of the PEA excerpts, I declare, and am further informed and believe, that the City utilized its General Fund for nearly all of the costs of complying with the terms of the 2009 Permit during the period 2009-2010 through 2020-2021, to the following effect:

- In Fiscal Year (FY) 2009-2010, approximately 89.6% of the City's stormwater quality costs were paid for via the City's General Fund revenues.
- In FY 2010-2011, 100% of the City's stormwater quality costs were paid for via the City's General Fund revenues.
- In FY 2011-2012, approximately 98.5% of the City's stormwater quality costs were paid for via the City's General Fund revenues.

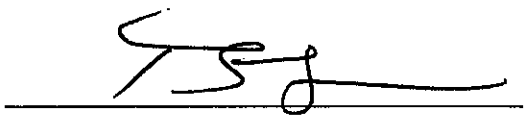
- In FY 2012-2013, approximately 98.3% of the City's stormwater quality costs were paid for via the City's General Fund revenues.
- In FY 2013-2014, 100% of the City's stormwater quality costs were paid for via the City's General Fund revenues.
- In FY 2014-2015, 99.76% of the City's stormwater quality costs were paid for via the City's General Fund revenues.
- In FY 2015-2016, 99.95% of the City's stormwater quality costs were paid for via the City's General Fund revenues.
- In FY 2016-2017, 99.65% of the City's stormwater quality costs were paid for via the City's General Fund revenues.
- In FY 2017-2018, 99.75% of the City's stormwater quality costs were paid for via the City's General Fund revenues.
- In FY 2018-2019, 99.61% of the City's stormwater quality costs were paid for via the City's General Fund revenues.
- In FY 2019-2020, 99.59% of the City's stormwater quality costs were paid for via the City's General Fund revenues.
- In FY 2020-2021, 99.83% of the City's stormwater quality costs were paid for via the City's General Fund revenues.

9. In addition to those General Fund revenues, the small remainder of the City's cost of complying with the 2009 Permit (less than 1% for every fiscal year other than FY 2009-2010) has been paid for with funds from the City's Special Fund 180, or the "Great Park Operating Fund", to pay for certain improvement projects within the Great Park. The funds within Special Fund 180 are sourced from revenue received from the Great Park's operations, certain special

assessments, miscellaneous revenues, and program/service fees. It is my understanding that Special Fund 180 is a limited use fund, meaning that its funds can only be used for projects and programs within the Great Park. The funds from Special Fund 180 were used to comply with certain portions of the 2009 Permit for work done on and in connection with the Great Park.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed October 31, 2022 at Irvine, California.



Thomas Lo

DECLARATION OF DEVIN SLAVEN

DECLARATION OF DEVIN SLAVEN

I, Devin Slaven, hereby declare and state as follows:

1. I am the Environmental Manager for the City of Lake Forest ("City"). In that capacity, I oversee and coordinate the City's implementation program for stormwater management including the applicable requirements of Order No. R8-2009-0030, the National Pollutant Discharge Elimination System ("NPDES") permit ("2009 Permit") issued to the City and other cities within Orange County regulating discharging from the municipal separate storm sewer system ("MS4").

2. In that capacity, I am familiar with the requirements of the 2009 permit applicable to the City and also the source of funds utilized by the City to pay for those requirements. I prepare the principal budget components for the City's implementation program and also prepare and submit fiscal reporting, on an annual basis.

3. As required by the 2009 Permit, each year the City must prepare an annual Program Effectiveness Assessment ("PEA"). The City delivers its PEA to the County of Orange/Principal Permittee ("County"), and I understand that the County submits the City's PEA, along with the other Co-permittees respective PEAs to the Santa Ana Regional Water Quality Control Board and U.S. EPA, Region 9, as required by the 2009 Permit.

4. I am aware that each PEA must be accompanied by a "Signed Certified Statement" that certifies "under penalty of law" that the PEA and all attachments were prepared under the signatory's "direction or supervision" and further that, based on the signatory's inquiry of responsible persons, "the information submitted, is, to the best of [the signatory's] knowledge and belief, true, accurate and complete." I am further aware that the Statement further provides

that the signatory is "aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

5. One section of the PEA, "Fiscal Analysis," includes among other items, information on funding sources utilized by the City for "all NPDES compliance related costs" for the City during the fiscal year covered by the PEA. I understand this to encompass all costs incurred by the City in complying with the requirements of the 2009 Permit.

6. Funding sources are listed in the PEA form under various categories, including "General Fund." The category "General Fund" means general fund revenues of the City.

7. I have reviewed excerpts of PEAs prepared by the City for fiscal years between 2009-2010 and 2018-2019, and which include the fiscal analysis section of the PEA, including information on funding sources.

8. Based on my knowledge of the funding sources utilized by the City to pay for requirements of the 2009 Permit, as well as my review of the PEA excerpts, I declare, and am further informed and believe, that the City utilized its General Fund and in some years gas taxes for the costs of complying with the 2009 Permit during the period 2009-2010 through 2019-2020 as follows:

In FY 2009-2010, 100% of costs were paid for by General Fund and gas taxes

In FY 2010-2011, 100% of costs were paid for by General Fund and gas taxes

In FY 2011-2012,100% of costs were paid for General Fund and gas taxes

In FY 2012-2013, 98% of costs were paid for by General Fund and gas taxes

In FY 2013-2014, 93% of costs were paid for by General Fund and gas taxes

In FY 2014-2015, 91% of costs were paid for by General Fund and gas taxes

In FY 2015-2016, 91% of costs were paid for by General Fund and gas taxes

In FY 2016-2017, 91% of costs were paid for by General Fund and gas taxes

In FY 2017-2018, 98.8% of costs were paid for by General Fund and gas taxes

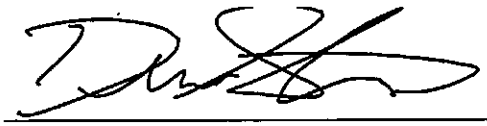
In FY 2018-2019, 99% of costs were paid for by General Fund and gas taxes

In FY 2019-2020, 99% of costs were paid for by General Fund and gas taxes

9. Based upon my knowledge and review of the PEA excerpts, the Measure M2 funds were utilized for storm drain retrofit projects including automatic retractable screens and connector pipe screens for catch basins.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed October 20, 2022 at Lake Forest, California.



Devin Slaven

DECLARATION OF DAVID SPITZ, P.E.

DECLARATION OF DAVID SPITZ

I, David Spitz, hereby declare and state as follows:

1. I am an Associate Engineer for the City of Seal Beach ("City"). In that capacity, I have operational oversight of program staff in several key program areas, including construction and development, watershed structural treatment controls, and regulatory reporting and program assessment. I also coordinate the City's stormwater compliance efforts with the municipal stormwater co-permittees and implement, on behalf of the City, applicable requirements of Order No. R8-2009-0030, the National Pollutant Discharge Elimination System ("NPDES") permit ("2009 Permit") issued to the City and other cities within Orange County regulating discharging from the municipal separate storm sewer system ("MS4").

2. In that capacity, I am familiar with the requirements of the 2009 Permit applicable to the City and also the source of funds utilized by the City to pay for those requirements. I am responsible for tracking staff time and resources committed to implementing the 2009 Permit and managing consultant contracts for services related to the 2009 Permit.

3. As required by the 2009 Permit, each year the City must prepare an annual Program Effectiveness Assessment ("PEA"). The City submits its PEA to the Orange County Stormwater Program, and I understand that the Program in turn provides the PEA to the Santa Ana Water Board and U.S. EPA, Region 9, as required by the 2009 Permit.

4. I am aware that each PEA must be accompanied by a "Signed Certified Statement" that certifies "under penalty of law" that the PEA and all attachments were prepared under the signatory's "direction or supervision" and further that, based on the signatory's inquiry

of responsible persons, "the information submitted, is, to the best of [the signatory's] knowledge and belief, true, accurate and complete." I am further aware that the Statement further provides that the signatory is "aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

5. One section of the PEA, "Fiscal Analysis," requires among other items, information on funding sources utilized by the City for "all NPDES compliance related costs" for the City during the fiscal year covered by the PEA. I understand this to encompass all costs incurred by the City in complying with the requirements of the 2009 Permit.

6. Funding sources are listed in the PEA form under various categories, including "General Fund." The category "General Fund" means general fund revenues of the City.

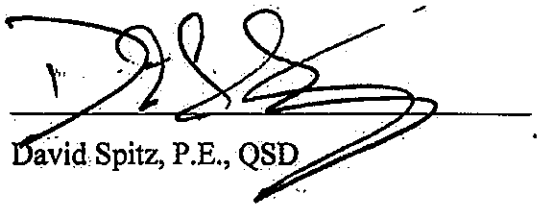
7. I have reviewed what I have been informed are, and which appear to be, excerpts of PEAs prepared by the City for fiscal years between 2009-2010 and 2020-2021, and which include the fiscal analysis section of the PEA, including information on funding sources.

8. Based on my knowledge of the funding sources utilized by the City to pay for requirements of the 2009 Permit, as well as my review of the PEA excerpts, I declare, and am further informed and believe, that the City utilized its General Fund for 100 percent of the costs of complying with the 2009 Permit during the period 2009-2010 through 2020-2021, with the exception of Fiscal Year (FY) 2009-2010, in which 90% of the costs were covered by General Fund sources and FY 2010-2011, when at least 90% were covered by General Fund sources. It is my belief that during these fiscal years, costs associated with the City's review and approval of

project-specific water quality management plans (WQMP) for new developments were paid for by third-party developers, and such WQMP costs were excluded from the cost figures identified in the City's annual PEA.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed October 21, 2022 at Seal Beach, California.



David Spitz, P.E., QSD

DECLARATION OF STEVE FRANKS

DECLARATION OF STEVE FRANKS

I, Steve Franks, hereby declare and state as follows:

1. I am the City Manager for the City of Villa Park ("City"). In that capacity, I have the responsibility to oversee the City's various departments, including those portions of the City that ensure the City's compliance with the applicable requirements of Order No. R8-2009-0030, the National Pollutant Discharge Elimination System ("NPDES") permit ("2009 Permit") issued to the City and other cities within Orange County regulating discharging from the municipal separate storm sewer system ("MS4").

2. In that capacity, I am familiar with the requirements of the 2009 permit applicable to the City and also the source of funds utilized by the City to pay for those requirements.

3. As required by the 2009 Permit, each year the City must prepare an annual Program Effectiveness Assessment ("PEA"). The City submits its PEA to the Orange County Stormwater Program ("Program"), and I understand that the Program in turn provides the PEA to the Santa Ana Water Board and U.S. EPA, Region 9, as required by the 2009 Permit.

4. I am aware that each PEA must be accompanied by a "Signed Certified Statement" that certifies "under penalty of law" that the PEA and all attachments were prepared under the signatory's "direction or supervision" and further that, based on the signatory's inquiry of responsible persons, "the information submitted, is, to the best of [the signatory's] knowledge and belief, true, accurate and complete." I am further aware that the Statement further provides that the signatory is "aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

5. One section of the PEA, "Fiscal Analysis," requires among other items, information on funding sources utilized by the City for "all NPDES compliance related costs" for the City during the fiscal year covered by the PEA. I understand this to encompass all costs incurred by the City in complying with the requirements of the 2009 Permit.

6. Funding sources are listed in the PEA form under various categories, including "General Fund." The category "General Fund" means general fund revenues of the City.

7. I have reviewed what I have been informed are, and which appear to be, excerpts of PEAs prepared by the City for fiscal years between 2009-2010 and 2020-2021, and which include the fiscal analysis section of the PEA, including information on funding sources.

8. Based on my knowledge of the funding sources utilized by the City to pay for requirements of the 2009 Permit, as well as my review of the PEA excerpts, I declare, and am further informed and believe, that the City utilized its General Fund for 100 percent of the costs of complying with the 2009 Permit during the period 2009-2010 through 2020-2021, with the exception of Fiscal Year 2014-2015. In that fiscal year, 95% of the City's costs of complying with the requirements of the 2009 Permit were paid for with funds that from the City's General Fund.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed October 27, 2022 at Villa Park, California.

Steve Franks
City Manager, City of Villa Park

DECLARATION OF SERVICE BY EMAIL

I, the undersigned, declare as follows:

I am a resident of the County of Sacramento and I am over the age of 18 years, and not a party to the within action. My place of employment is 980 Ninth Street, Suite 300, Sacramento, California 95814.

On November 7, 2022, I served the:

- **Cities of Alameda's and Union City's and Alameda Countywide Clean Water Program's Comments on the Draft Proposed Decision filed November 4, 2022**
- **Claimants' Comments on the Draft Proposed Decision filed November 4, 2022**
- **Finance's Comments on the Draft Proposed Decision filed November 4, 2022**
- **Water Boards' Comments on the Draft Proposed Decision filed November 4, 2022**

  California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2009-0030, Sections IX, X, XI, XII, XIII, and, XVIII, 09-TC-03
  Santa Ana Regional Water Quality Control Board, Resolution No. R8-2009-0030, adopted May 22, 2009
  County of Orange, Orange County Flood Control District; and the Cities of Anaheim, Brea, Buena Park, Costa Mesa, Cypress, Fountain Valley, Fullerton, Huntington Beach, Irvine, Lake Forest, Newport Beach, Placentia, Seal Beach, and Villa Park, Claimants

By making it available on the Commission's website and providing notice of how to locate it to the email addresses provided on the attached mailing list.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that this declaration was executed on November 7, 2022 at Sacramento, California.

Jill L. Magee
Commission on State Mandates
980 Ninth Street, Suite 300
Sacramento, CA 95814
(916) 323-3562

COMMISSION ON STATE MANDATES

Mailing List

Last Updated: 10/28/22

Claim Number: 09-TC-03

Matter: California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2009-0030

Claimants: City of Anaheim
City of Brea
City of Buena Park
City of Costa Mesa
City of Cypress
City of Fountain Valley
City of Fullerton
City of Huntington Beach
City of Irvine
City of Lake Forest
City of Newport Beach
City of Placentia
City of Seal Beach
City of Villa Park
County of Orange
Orange County Flood Control District

TO ALL PARTIES, INTERESTED PARTIES, AND INTERESTED PERSONS:

Each commission mailing list is continuously updated as requests are received to include or remove any party or person on the mailing list. A current mailing list is provided with commission correspondence, and a copy of the current mailing list is available upon request at any time. Except as provided otherwise by commission rule, when a party or interested party files any written material with the commission concerning a claim, it shall simultaneously serve a copy of the written material on the parties and interested parties to the claim identified on the mailing list provided by the commission. (Cal. Code Regs., tit. 2, § 1181.3.)

Adaoha Agu, *County of San Diego Auditor & Controller Department*
Projects, Revenue and Grants Accounting, 5530 Overland Avenue, Ste. 410 , MS:O-53, San Diego, CA 92123
Phone: (858) 694-2129
Adaoha.Agu@sdcounty.ca.gov

Rebecca Andrews, *Best Best & Krieger, LLP*
655 West Broadway, 15th Floor, San Diego, CA 92101
Phone: (619) 525-1300
Rebecca.Andrews@bbklaw.com

Lili Apgar, Specialist, *State Controller's Office*
Local Reimbursements Section, 3301 C Street, Suite 740, Sacramento, CA 95816

Phone: (916) 324-0254
lapgar@sco.ca.gov

Socorro Aquino, *State Controller's Office*
Division of Audits, 3301 C Street, Suite 700, Sacramento, CA 95816
Phone: (916) 322-7522
SAquino@sco.ca.gov

Damien Arrula, City Administrator, *City of Placentia*
Claimant Contact
401 E. Chapman Avenue, Placentia, CA 92870
Phone: (714) 993-8171
darrula@placentia.org

Aaron Avery, Legislative Representative, *California Special Districts Association*
1112 I Street Bridge, Suite 200, Sacramento, CA 95814
Phone: (916) 442-7887
Aarona@csda.net

Ryan Baron, *Best Best & Krieger LLP*
18101 Von Karman Avenue, Suite 1000, Irvine, CA 92612
Phone: (949) 263-2600
ryan.baron@bbklaw.com

Gretchen Beatty, Acting City Manager, *City of Fullerton*
Claimant Contact
303 W. Commonwealth Ave, Fullerton, CA 92832
Phone: (714) 738-6310
citymanager@cityoffullerton.com

Baron Bettenhausen, Deputy City Attorney, *Jones & Mayer Law Firm*
3777 N. Harbor Blvd, Fullerton, CA 92835
Phone: (714) 446-1400
bjb@jones-mayer.com

Cindy Black, City Clerk, *City of St. Helena*
1480 Main Street, St. Helena, CA 94574
Phone: (707) 968-2742
ctzafopoulos@cityofsthelena.org

Lisa Bond, *Richards,Watson & Gershon,LLP*
355 South Grand Avenue, 40th Floor, Los Angeles, CA 90071-3101
Phone: (213) 626-8484
lbond@rwglaw.com

Katharine Bramble, Attorney, *State Water Resources Control Board*
Santa Ana Regional Water Quality Control Board, 1001 I Street, 22nd Floor, Sacramento, CA 95814
Phone: (916) 440-7769
Katharine.Bramble@waterboards.ca.gov

Guy Burdick, Consultant, *MGT Consulting*
2251 Harvard Street, Suite 134, Sacramento, CA 95815
Phone: (916) 833-7775
gburdick@mgtconsulting.com

Allan Burdick,
7525 Myrtle Vista Avenue, Sacramento, CA 95831

Phone: (916) 203-3608
allanburdick@gmail.com

David Burhenn, *Burhenn & Gest, LLP*
Claimant Representative
624 South Grand Avenue, Suite 2200, Los Angeles, CA 90017
Phone: (213) 629-8788
dburhenn@burhenngest.com

Evelyn Calderon-Yee, Bureau Chief, *State Controller's Office*
Local Government Programs and Services Division, Bureau of Payments, 3301 C Street, Suite 740, Sacramento, CA 95816
Phone: (916) 324-5919
ECalderonYee@sco.ca.gov

Teresa Calvert, Program Budget Manager, *Department of Finance*
915 L Street, 8th Floor, Sacramento, CA 95814
Phone: (916) 322-2263
Teresa.Calvert@dof.ca.gov

Oliver Chi, City Manager, *City of Irvine*
Claimant Contact
One Civic Center Plaza, Irvine, CA 92623-9575
Phone: (949) 724-6246
OChi@cityofirvine.org

Annette Chinn, *Cost Recovery Systems, Inc.*
705-2 East Bidwell Street, #294, Folsom, CA 95630
Phone: (916) 939-7901
achinncrs@aol.com

Carolyn Chu, Senior Fiscal and Policy Analyst, *Legislative Analyst's Office*
925 L Street, Suite 1000, Sacramento, CA 95814
Phone: (916) 319-8326
Carolyn.Chu@lao.ca.gov

Michael Coleman, *Coleman Advisory Services*
2217 Isle Royale Lane, Davis, CA 95616
Phone: (530) 758-3952
coleman@muni1.com

Kris Cook, Assistant Program Budget Manager, *Department of Finance*
915 L Street, 10th Floor, Sacramento, CA 95814
Phone: (916) 445-3274
Kris.Cook@dof.ca.gov

Tim Corbett, Deputy Director of Public Works, *County of Orange*
Public Works, 2301 North Glassell Street, Orange, CA 92865
Phone: (714) 955-0630
tim.corbett@ocpw.ocgov.com

Brian Cote, Senior Government Finance & Administration Analyst, *California State Association of Counties (CSAC)*
1100 K Street, Suite 101, Sacramento, CA 95814
Phone: (916) 650-8184
bcote@counties.org

Frank Davies, Auditor-Controller, *County of Orange*

Claimant Contact
1770 North Broadway, Santa Ana, CA 92701
Phone: (714) 834-2450
Frank.Davies@ac.ocgov.com

Douglas Dennington, Attorney, *Rutan & Tucker, LLP*
611 Anton Blvd., Suite 1400, Costa Mesa, CA 92626
Phone: (714) 641-5100
ddennington@rutan.com

Paul Emery, City Manager, *City of Anaheim*
Claimant Contact
200 S. Anaheim Blvd., Suite 733, Anaheim, CA 92805
Phone: (714) 765-5162
pemery@anaheim.net

Donna Ferebee, *Department of Finance*
915 L Street, Suite 1280, Sacramento, CA 95814
Phone: (916) 445-8918
donna.ferebee@dof.ca.gov

Adam Fischer, *Santa Ana Regional Water Quality Control Board*
3737 Main Street, Suite 500, Riverside, CA 92501
Phone: (951) 320-6363
afischer@waterboards.ca.gov

Tim Flanagan, Office Coordinator, *Solano County*
Register of Voters, 678 Texas Street, Suite 2600, Fairfield, CA 94533
Phone: (707) 784-3359
Elections@solanocounty.com

Jennifer Fordyce, Assistant Chief Counsel, *State Water Resources Control Board*
Office of Chief Counsel, 1001 I Street, 22nd floor, Sacramento, CA 95814
Phone: (916) 324-6682
Jennifer.Fordyce@waterboards.ca.gov

Craig Foster, Chief Operating Officer, *Building Industry Legal Defense Foundation*
Building Association of Southern California, 17744 Sky Park Circle, Suite 170, Irvine, Irvin 92614
Phone: (949) 553-9500
cfoster@biasc.org

Aaron France, City Manager, *City of Buena Park*
Claimant Contact
6650 Beach Boulevard, Second Floor, Buena Park, CA 90621
Phone: (714) 562-3550
afrance@buenapark.com

Steve Franks, City Manager, *City of Villa Park*
Claimant Contact
17855 Santiago Blvd, Villa Park, CA 92861
Phone: (714) 998-1500
sfranks@villapark.org

Bill Gallardo, City Manager, *City of Brea*
Claimant Contact
1 Civic Center Circle, Brea, CA 92821
Phone: (714) 990-7710
billga@cityofbrea.net

Howard Gest, *Burhenn & Gest,LLP*
624 South Grand Avenue, Suite 2200, Los Angeles, CA 90402
Phone: (213) 629-8787
hgest@burhenngest.com

Nicholas Ghirelli, Attorney, *Richards Watson Gershon*
355 South Grand Avenue, Suite 4000, Los Angeles, CA 90071-3101
Phone: (213) 626-8484
Nghirelli@rwglaw.com

Peter Grant, City Manager, *City of Cypress*
Claimant Contact
5275 Cypress Ave, Cypress, CA 90630
Phone: (714) 229-6700
pgrant@cypressca.org

Catherine George Hagan, Senior Staff Counsel, *State Water Resources Control Board*
c/o San Diego Regional Water Quality Control Board, 2375 Northside Drive, Suite 100, San Diego, CA 92108
Phone: (619) 521-3012
catherine.hagan@waterboards.ca.gov

Kimberly Hall-Barlow, *Jones and Mayer*
3777 N. Harbor Blvd., Fullerton, CA 92835-1366
Phone: (714) 754-5399
khb@jones-mayer.com

Heather Halsey, Executive Director, *Commission on State Mandates*
980 9th Street, Suite 300, Sacramento, CA 95814
Phone: (916) 323-3562
heather.halsey@csm.ca.gov

Sunny Han, Project Manager, *City of Huntington Beach*
2000 Main Street, Huntington Beach, CA 92648
Phone: (714) 536-5907
Sunny.han@surfcity-hb.org

Aaron Harp, *City of Newport Beach*
Office of the City Attorney, 100 Civic Center Drive, Newport Beach, CA 92660
Phone: (949) 644-3131
aharp@newportbeachca.gov

Tom Hatch, City Manager, *City of Costa Mesa*
Claimant Contact
77 Fair Drive, Costa Mesa, CA 92626
Phone: (714) 754-5000
thomas.hatch@costamesaca.gov

Steven Hauerwaas, *City of Fountain Valley*
10200 Siater Avenue, Fountain Valley, CA 92708-4736
Phone: (714) 593-4441
steve.hauerwaas@fountainvalley.org

Tom Herbel, City Engineer, *City of Huntington Beach*
Public Works Department, 2000 Main Street, Huntington Beach, CA 92648
Phone: (714) 375-5077
Tom.Herbel@surfcity-hb.org

Chris Hill, Principal Program Budget Analyst, *Department of Finance*
Local Government Unit, 915 L Street, Sacramento, CA 95814
Phone: (916) 445-3274
Chris.Hill@dof.ca.gov

Michael Ho, Director of Public Works, *City of Brea*
545 Berry St., Brea, CA 92821
Phone: (714) 990-7691
michaelh@ci.brea.ca.us

Tiffany Hoang, Associate Accounting Analyst, *State Controller's Office*
Local Government Programs and Services Division, Bureau of Payments, 3301 C Street, Suite 740, Sacramento, CA 95816
Phone: (916) 323-1127
THoang@sco.ca.gov

Travis Hopkins, *City of Huntington Beach*
2000 Main Street, Huntington Beach, CA 92648
Phone: (714) 536-5437
THopkins@surfcity-hb.org

Rob Houston, City Manager, *City of Fountain Valley*
Claimant Contact
10200 Slater Avenue, Fountain Valley, CA 92708
Phone: (714) 593-4410
rob.houston@fountainvalley.org

Brian Ingallinera, Environmental Services Coordinator, *City of Brea*
1 Civic Center Circle, Brea, CA 92821
Phone: (714) 990-7672
briani@cityofbrea.net

Jill Ingram, City Manager, *City of Seal Beach*
Claimant Contact
211 8th Street, Seal Beach, CA 90740
Phone: (562) 431-2527
jingram@sealbeachca.gov

Jason Jennings, Director, *Maximus Consulting*
Financial Services, 808 Moorefield Park Drive, Suite 205, Richmond, VA 23236
Phone: (804) 323-3535
SB90@maximus.com

Angelo Joseph, Supervisor, *State Controller's Office*
Local Government Programs and Services Division, Bureau of Payments, 3301 C Street, Suite 740, Sacramento, CA 95816
Phone: (916) 323-0706
AJoseph@sco.ca.gov

Jayne Joy, Executive Officer, *Santa Ana Regional Water Quality Control Board*
3737 Main Street, Suite 500, Riverside, CA 92501-3348
Phone: (951) 782-3284
Jayne.Joy@waterboards.ca.gov

Jeremy Jungreis, Partner, *Rutan & Tucker, LLP*
611 Anton Boulevard, 14th Floor, Costa Mesa, CA 92626
Phone: (714) 641-5100
jjungreis@rutan.com

Anita Kerezsi, *AK & Company*
2425 Golden Hill Road, Suite 106, Paso Robles, CA 93446
Phone: (805) 239-7994
akcompanysb90@gmail.com

Joanne Kessler, Fiscal Specialist, *City of Newport Beach*
Revenue Division, 100 Civic Center Drive , Newport Beach, CA 90266
Phone: (949) 644-3199
jkessler@newportbeachca.gov

Lisa Kurokawa, Bureau Chief for Audits, *State Controller's Office*
Compliance Audits Bureau, 3301 C Street, Suite 700, Sacramento, CA 95816
Phone: (916) 327-3138
lkurokawa@sco.ca.gov

Claudia Landeras-Sobaih, Principal Plan Check Engineer, *City of Irvine*
One Civic Center Plaza, PO Box 19575, Irvine, Irvin 92623
Phone: (949) 724-6330
CLanderas-Sobaih@cityofirvine.org

Michael Lauffer, Chief Counsel, *State Water Resources Control Board*
1001 I Street, 22nd Floor, Sacramento, CA 95814-2828
Phone: (916) 341-5183
michael.lauffer@waterboards.ca.gov

Kim-Anh Le, Deputy Controller, *County of San Mateo*
555 County Center, 4th Floor, Redwood City, CA 94063
Phone: (650) 599-1104
kle@smcgov.org

Alison Leary, Deputy General Counsel, *League of California Cities*
1400 K Street, Suite 400, Sacramento, CA 95814
Phone: (916) 658-8200
aleary@cacities.org

Candice Lee, *Richards,Watson & Gershon,LLP*
355 South Grand Avenue, 40th Floor, Los Angeles, CA 90071
Phone: (213) 626-8484
clee@rwglaw.com

Fernando Lemus, Principal Accountant - Auditor, *County of Los Angeles*
Auditor-Controller's Office, 500 West Temple Street, Room 603, Los Angeles, CA 90012
Phone: (213) 974-0324
flemus@auditor.lacounty.gov

Grace Leung, City Manager, *City of Newport Beach*
100 Civic Center Drive, Newport Beach, CA 92660
Phone: (949) 644-3001
gleung@newportbeachca.gov

Erika Li, Chief Deputy Director, *Department of Finance*
915 L Street, 10th Floor, Sacramento, CA 95814
Phone: (916) 445-3274
erika.li@dof.ca.gov

Shally Lin, Director of Finance - Interim, *City of Fountain Valley*
10200 Slater Avenue, Fountain Valley, CA 92708

Phone: (714) 593-4418
Shally.Lin@fountainvalley.org

Keith Linker, *City of Anaheim*
Public Works, 200 S. Anaheim Boulevard, Anaheim, CA 92805
Phone: (714) 765-5148
KLinker@anaheim.net

Thomas Lo, Water Quality Administrator, *City of Irvine*
One Civic Center Plaza, PO Box 19575, Irvine, CA 92623
Phone: (949) 724-6315
tlo@cityofirvine.org

Everett Luc, Accounting Administrator I, Specialist, *State Controller's Office*
3301 C Street, Suite 740, Sacramento, CA 95816
Phone: (916) 323-0766
ELuc@sco.ca.gov

Jill Magee, Program Analyst, *Commission on State Mandates*
980 9th Street, Suite 300, Sacramento, CA 95814
Phone: (916) 323-3562
Jill.Magee@csm.ca.gov

Corrie Manning, Assistant General Counsel, *League of California Cities*
1400 K Street, Suite 400, Sacramento, CA 95814
Phone: (916) 658-8200
cmanning@cacities.org

Darryl Mar, Manager, *State Controller's Office*
3301 C Street, Suite 740, Sacramento, CA 95816
Phone: (916) 323-0706
DMar@sco.ca.gov

Jane McPherson, Financial Services Director, *City of Oceanside*
300 North Coast Highway, Oceanside, CA 92054
Phone: (760) 435-3055
JmcPherson@oceansideca.org

Michelle Mendoza, *MAXIMUS*
17310 Red Hill Avenue, Suite 340, Irvine, CA 95403
Phone: (949) 440-0845
michellemendoza@maximus.com

Mina Mikhael, Interim Director of Public Works, *City of Buena Park*
6650 Beach Boulevard, Buena Park, CA 90621
Phone: (714) 562-3670
mmikhael@buenapark.com

Andre Monette, Partner, *Best Best & Krieger, LLP*
2000 Pennsylvania NW, Suite 5300, Washington, DC 20006
Phone: (202) 785-0600
andre.monette@bbklaw.com

Lourdes Morales, Senior Fiscal and Policy Analyst, *Legislative Analyst's Office*
925 L Street, Suite 1000, Sacramento, CA 95814
Phone: (916) 319-8320
Lourdes.Morales@LAO.CA.GOV

Marilyn Munoz, Senior Staff Counsel, *Department of Finance*

915 L Street, Sacramento, CA 95814
Phone: (916) 445-8918
Marilyn.Munoz@dof.ca.gov

Steve Myrter, Director of Public Works, *City of Seal Beach*
211 Eighth Street, Seal Beach, CA 90740
Phone: (562) 431-2527
smyrter@sealbeachca.gov

Geoffrey Neill, Senior Legislative Analyst, Revenue & Taxation, *California State Association of Counties (CSAC)*
1100 K Street, Suite 101, Sacramento, CA 95814
Phone: (916) 327-7500
gneill@counties.org

Gregory Newmark, *Meyers, Nave*
707 Wilshire Blvd., 24th Floor, Los Angeles , CA 90017
Phone: (510) 808-2000
gnewmark@meyersnave.com

Andy Nichols, *Nichols Consulting*
1857 44th Street, Sacramento, CA 95819
Phone: (916) 455-3939
andy@nichols-consulting.com

Adriana Nunez, Staff Counsel, *State Water Resources Control Board*
Los Angeles Regional Water Quality Control Board, 1001 I Street, 22nd Floor, Sacramento, CA 95814
Phone: (916) 322-3313
Adriana.Nunez@waterboards.ca.gov

Patricia Pacot, Accountant Auditor I, *County of Colusa*
Office of Auditor-Controller, 546 Jay Street, Suite #202 , Colusa, CA 95932
Phone: (530) 458-0424
ppacot@countyofcolusa.org

Leon Page, County Counsel, *333 W. Santa Ana Blvd.*
, Santa Ana, CA 92702
Phone: (714) 834-3303
leon.page@coco.ocgov.com

Arthur Palkowitz, *Artiano Shinoff*
2488 Historic Decatur Road, Suite 200, San Diego, CA 92106
Phone: (619) 232-3122
apalkowitz@as7law.com

Johnnie Pina, Legislative Policy Analyst, *League of Cities*
1400 K Street, Suite 400, Sacramento, CA 95814
Phone: (916) 658-8214
jpina@cacities.org

Jai Prasad, *County of San Bernardino*
Office of Auditor-Controller, 222 West Hospitality Lane, 4th Floor, San Bernardino, CA 92415-0018
Phone: (909) 386-8854
jai.prasad@sbcountyatc.gov

Jonathan Quan, Associate Accountant, *County of San Diego*
Projects, Revenue, and Grants Accounting, 5530 Overland Ave, Suite 410, San Diego, CA 92123

Phone: 6198768518
Jonathan.Quan@sdcounty.ca.gov

David Rice, *State Water Resources Control Board*
1001 I Street, 22nd Floor, Sacramento, CA 95814
Phone: (916) 341-5161
david.rice@waterboards.ca.gov

Elsa Robinson, *City of Placentia*
401 East Chapman Avenue, Placentia, CA 92870
Phone: (714) 993-8148
erobinson@placentia.org

Debra Rose, City Manager, *City of Lake Forest*
Claimant Contact
100 Civic Center Drive, Lake Forest, CA 92630
Phone: (949) 461-3400
drose@lakeforestca.gov

Teresita Sablan, *State Water Resources Control Board*
Santa Ana Regional Water Quality Control Board and San Francisco Bay Regional Water Quality Control Board, 1001 I Street, 22nd Floor, Sacramento, CA 95814
Phone: (916) 341-5174
Teresita.Sablan@waterboards.ca.gov

Cindy Sconce, Director, *MGT*
Performance Solutions Group, 3600 American River Drive, Suite 150, Sacramento, CA 95864
Phone: (916) 276-8807
csconce@mgtconsulting.com

Raja Sethuraman, Director of Public Works, *City of Costa Mesa*
Department of Public Works, 77 Fair Drive, Costa Mesa, CA 92628
Phone: (714) 754-5343
raja.sethuraman@costamesaca.gov

Camille Shelton, Chief Legal Counsel, *Commission on State Mandates*
980 9th Street, Suite 300, Sacramento, CA 95814
Phone: (916) 323-3562
camille.shelton@csm.ca.gov

Carla Shelton, *Commission on State Mandates*
980 9th Street, Suite 300, Sacramento, CA 95814
Phone: (916) 323-3562
carla.shelton@csm.ca.gov

Wayne Shimabukuro, *County of San Bernardino*
Auditor/Controller-Recorder-Treasurer-Tax Collector, 222 West Hospitality Lane, 4th Floor, San Bernardino, CA 92415-0018
Phone: (909) 386-8850
wayne.shimabukuro@atc.sbcounty.gov

Jennifer Shook, *County of Orange - OC Public Works Department*
OC Watersheds Program - Stormwater External, 2301 N. Glassell Street, Orange, CA 92865
Phone: (714) 955-0671
jennifer.shook@ocpw.ocgov.com

Natalie Sidarous, Chief, *State Controller's Office*
Local Government Programs and Services Division, 3301 C Street, Suite 740, Sacramento, CA

95816
Phone: 916-445-8717
NSidarous@sco.ca.gov

Michelle Skaggs Lawrence, City Manager, *City of Oceanside*
300 North Coast Highway, Oceanside, CA 92054
Phone: (760) 435-3055
citymanager@oceansideca.org

Mike Smith, Water Quality Manager, *City of Cypress*
5275 Orange Avenue, Cypress, CA 90630
Phone: (714) 229-6752
waterquality@cypressca.org

Christina Snider, Senior Deputy County Counsel, *County of San Diego*
1600 Pacific Highway, Room 355, San Diego, CA 92101
Phone: (619) 531-6229
Christina.Snider@sdcounty.ca.gov

Eileen Sobeck, Executive Director, *State Water Resources Control Board*
1001 I Street, 22nd Floor, Sacramento, CA 95814-2828
Phone: (916) 341-5183
Eileen.Sobeck@waterboards.ca.gov

Cristina Talley, City Attorney, *City of Anaheim*
200 S. Anaheim Boulevard #356, Anaheim, CA 92805
Phone: (714) 765-5169
CTalley@anaheim.net

Brittany Thompson, Budget Analyst, *Department of Finance*
Local Government Unit, 915 L Street, Sacramento, CA 95814
Phone: (916) 445-3274
Brittany.Thompson@dof.ca.gov

Jolene Tollenaar, *MGT Consulting Group*
2251 Harvard Street, Suite 134, Sacramento, CA 95815
Phone: (916) 243-8913
jolenetollenaar@gmail.com

James Treadaway, Director of Public Works, *County of Orange*
300 North Flower Street, Santa Ana, CA 92703
Phone: (714) 667-9700
James.Treadaway@ocpw.ocgov.com

Evelyn Tseng, *City of Newport Beach*
100 Civic Center Drive, Newport Beach, CA 92660
Phone: (949) 644-3127
etseng@newportbeachca.gov

Brian Uhler, Principal Fiscal & Policy Analyst, *Legislative Analyst's Office*
925 L Street, Suite 1000, Sacramento, CA 95814
Phone: (916) 319-8328
Brian.Uhler@LAO.CA.GOV

Travis Van Ligten, Associate, *Rutan & Tucker, LLP*
611 Anton Blvd, Suite 1400, Costa Mesa, CA 92626
Phone: (714) 641-5100
tvanligten@rutan.com

Antonio Velasco, Revenue Auditor, *City of Newport Beach*
100 Civic Center Drive, Newport Beach, CA 92660
Phone: (949) 644-3143
avelasco@newportbeachca.gov

Michael Vigliotta, *City of Huntington Beach*
2000 Main Street, Huntington Beach, CA 92648
Phone: (714) 536-5555
MVigliotta@surfcity-hb.org

Emel Wadhwani, Senior Staff Counsel, *State Water Resources Control Board*
Office of Chief Counsel, 1001 I Street, Sacramento, CA 95814
Phone: (916) 322-3622
emel.wadhwani@waterboards.ca.gov

Ada Waelder, Legislative Analyst, Government Finance and Administration, *California State Association of Counties (CSAC)*
1100 K Street, Suite 101, Sacramento, CA 95814
Phone: (916) 327-7500
awaelder@counties.org

David Webb, *City of Newport Beach*
100 Civic Center Drive, Newport Beach, CA 92660
Phone: (949) 644-3328
dwebb@newportbeachca.gov

Renee Wellhouse, *David Wellhouse & Associates, Inc.*
3609 Bradshaw Road, H-382, Sacramento, CA 95927
Phone: (916) 797-4883
dwa-renee@surewest.net

Tom Wheeler, Director of Public Works, *City of Lake Forest*
100 Civic Center Drive, Lake Forest, CA 92630
Phone: (949) 461-3480
twheeler@lakeforestca.gov

Jacqueline Wong-Hernandez, Deputy Executive Director for Legislative Affairs, *California State Association of Counties (CSAC)*
1100 K Street, Sacramento, CA 95814
Phone: (916) 650-8104
jwong-hernandez@counties.org

Julia Woo, Deputy County Counsel, *County of Orange*
333 West Santa Ana Blvd, Suite 407, Santa Ana, CA 92701
Phone: (714) 834-6046
julia.woo@coco.ocgov.com

Elisa Wynne, Staff Director, *Senate Budget & Fiscal Review Committee*
California State Senate, State Capitol Room 5019, Sacramento, CA 95814
Phone: (916) 651-4103
elisa.wynne@sen.ca.gov

Juan Zavala, Principal Engineer, *City of Fullerton*
Public Works, 303 West Commonwealth Avenue, Fullerton, CA 92832
Phone: (714) 738-6845
Juan.Zavala@cityoffullerton.com

Al Zelinka, City Manager, *City of Huntington Beach*

Claimant Contact
2000 Main St, Huntington Beach, CA 92648
Phone: (714) 375-8465
Al.Zelinka@surfcity-hb.org

STATE of CALIFORNIA
COMMISSION ON STATE MANDATES

March 24, 2023

Mr. David Burhenn
Burhenn & Gest, LLP
624 South Grand Avenue, Suite 2200
Los Angeles, CA 90017

Mr. Kris Cook
Department of Finance
915 L Street, 10th Floor
Sacramento, CA 95814

And Parties, Interested Parties, and Interested Persons (See Mailing List)

Re: Decision
California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2009-0030, Sections IX, X, XI, XII, XIII, and, XVIII, 09-TC-03
Santa Ana Regional Water Quality Control Board, Resolution No. R8-2009-0030, adopted May 22, 2009
County of Orange, Orange County Flood Control District; and the Cities of Anaheim, Brea, Buena Park, Costa Mesa, Cypress, Fountain Valley, Fullerton, Huntington Beach, Irvine, Lake Forest, Newport Beach, Placentia, Seal Beach, and Villa Park, Claimants

Dear Mr. Burhenn and Mr. Cook:

On March 24, 2023, the Commission on State Mandates adopted the Decision partially approving the Test Claim on the above-captioned matter.

Sincerely,

Heather Halsey
Executive Director

BEFORE THE

COMMISSION ON STATE MANDATES

STATE OF CALIFORNIA

IN RE TEST CLAIM Santa Ana Regional Water Quality Control Board, Order No. R8-2009-0030, Sections IX, X, XI, XII, XIII, and XVIII (Adopted May 22, 2009) Filed on June 30, 2010; Revised December 19, 2016 and January 3, 2017 County of Orange, Orange County Flood Control District; and the Cities of Anaheim, Brea, Buena Park, Costa Mesa, Cypress, Fountain Valley, Fullerton, Huntington Beach, Irvine, Lake Forest, Newport Beach, Placentia, Seal Beach, and Villa Park, Claimants.[1]	Case No.: 09-TC-03 *California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2009-0030, Sections IX, X, XI, XII, XIII, and XVIII, Adopted May 22, 2009* DECISION PURSUANT TO GOVERNMENT CODE SECTION 17500 ET SEQ.; CALIFORNIA CODE OF REGULATIONS, TITLE 2, DIVISION 2, CHAPTER 2.5, ARTICLE 7. (*Adopted March 24, 2023*) (*Served March 24, 2023*)

TEST CLAIM

The Commission on State Mandates adopted the attached Decision on March 24, 2023.

Heather Halsey, Executive Director

[1] Note that the cities of Garden Grove, Laguna Hills, Laguna Woods, La Habra, La Palma, Los Alamitos, Orange, Santa Ana, Stanton, Tustin, Westminster, and Yorba Linda, which are not claimants in this matter, are also co-permittees subject to the test claim permit, and are eligible to submit reimbursement claims for any approved activities in this Test Claim.

BEFORE THE

COMMISSION ON STATE MANDATES

STATE OF CALIFORNIA

IN RE TEST CLAIM Santa Ana Regional Water Quality Control Board, Order No. R8-2009-0030, Sections IX, X, XI, XII, XIII, and XVIII (Adopted May 22, 2009) Filed on June 30, 2010; Revised December 19, 2016 and January 3, 2017 County of Orange, Orange County Flood Control District; and the Cities of Anaheim, Brea, Buena Park, Costa Mesa, Cypress, Fountain Valley, Fullerton, Huntington Beach, Irvine, Lake Forest, Newport Beach, Placentia, Seal Beach, and Villa Park, Claimants.[1]	Case No.: 09-TC-03 *California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2009-0030, Sections IX, X, XI, XII, XIII, and XVIII, Adopted May 22, 2009* DECISION PURSUANT TO GOVERNMENT CODE SECTION 17500 ET SEQ.; CALIFORNIA CODE OF REGULATIONS, TITLE 2, DIVISION 2, CHAPTER 2.5, ARTICLE 7. (*Adopted March 24, 2023*) (*Served March 24, 2023*)

DECISION

The Commission on State Mandates (Commission) heard and decided this Test Claim during a regularly scheduled hearing on March 24, 2023. David Burhenn and Amanda Carr appeared on behalf of the claimants. Donna Ferebee appeared on behalf of the Department of Finance (Finance). Jennifer Fordyce, Catherine Hagan, and Michael Lauffer appeared on behalf of the State Water Resources Control Board (State Board) and the Santa Ana Regional Water Quality Control Board (Regional Board). Bryan Brown of Meyers Nave appeared on behalf of interested person Alameda Countywide Clean Water Program.

The law applicable to the Commission's determination of a reimbursable state-mandated program is article XIII B, section 6 of the California Constitution, Government Code sections 17500 et seq., and related case law.

The Commission adopted the Proposed Decision to partially approve the Test Claim at the hearing by a vote of 6-0, as follows:

Member	**Vote**
Lee Adams, County Supervisor	Yes

[1] Note that the cities of Garden Grove, Laguna Hills, Laguna Woods, La Habra, La Palma, Los Alamitos, Orange, Santa Ana, Stanton, Tustin, Westminster, and Yorba Linda, which are not claimants in this matter, are also co-permittees subject to the test claim permit, and are eligible to submit reimbursement claims for any approved activities in this Test Claim.

Member	Vote
Gayle Miller, Representative of the Director of the Department of Finance, Chairperson	Yes
Scott Morgan, Representative of the Director of the Office of Planning and Research	Yes
Renee Nash, School Board Member	Yes
Sarah Olsen, Public Member	Absent
Lynn Paquin, Representative of the State Controller, Vice Chairperson	Yes
Spencer Walker, Representative of the State Treasurer	Yes

Summary of the Findings

This Test Claim alleges reimbursable state mandated activities arising from Order No. R8-2009-0030 (test claim permit), issued by the Santa Ana Regional Water Quality Control Board (Regional Board) on May 22, 2009, effective June 1, 2009.[2] The test claim permit amended a prior discharge permit (Third Term Permit) for the co-permittee cities, county and flood control district (which includes the claimants), which limited the discharge of certain specified constituent pollutants into the waters within the jurisdiction of the Regional Board. The test claim permit: identifies wasteload allocations (WLAs) for receiving waters to comply with Total Maximum Daily Loads (TMDLs) adopted pursuant to section 303(d) of the federal Clean Water Act[3]; requires that low impact development (LID) and hydromodification prevention be considered in the planning and site design of new development and significant redevelopment projects, including municipal projects; expands public education and outreach requirements, including to residential areas; and increases the scope and costs of the commercial and industrial inspections programs.

The claimants allege sections XVIII.B.1 through XVIII.B.5, XVIII.B.7 through XVIII.B.9, XVIII.C.1, and XVIII.D.1 of the test claim permit require them to comply with numeric effluent limits for a number of constituent pollutants (metals, organochlorine compounds, selenium, fecal coliform, and pesticides), to implement TMDLs for those pollutants in Newport Bay, San Diego Creek, and reaches in the San Gabriel River and Coyote Creek. As explained in the test claim permit, these waterbodies were impaired and 303(d) listed since these constituents exceeded applicable State water quality standards. One of the listed causes of the impairment was urban runoff.[4] Federal law requires that TMDLs be established for each 303(d) listed waterbody for each of the pollutants causing impairment.[5] The test claim permit requires the claimants to develop and submit specific plans, as discussed below, and identifies the WLAs previously

[2] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 352 [Order No. R8-2009-0030].

[3] United States Code, title 33, section 1313(d).

[4] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 284 [Order No. R8-2009-0030].

[5] United States Code, title 33, section 1313(d).

adopted in the TMDLs.[6] The test claim permit requires monitoring within the receiving waters, and if the monitoring results indicate an exceedance of the WLAs, claimants are required to reevaluate current BMPs or propose new BMPs, and once a revised plan is approved, implement the revised plan.[7]

The Commission finds that the requirements in Sections XVIII.B.8 and XVIII.B.9 of the test claim permit impose a state-mandated new program or higher level of service to submit to the Regional Board a Cooperative Watershed Program to implement the TMDL for selenium and to develop a constituent-specific source control plan to comply with the San Gabriel metals TMDL.

However, Sections XVIII.B.5 and 7 do not impose any requirements.

In addition, the remaining requirements in Sections XVIII.B.4, XVIII.B.8, XVIII.B.9, XVIII.C.1, and XVIII.D.1, to monitor, implement BMPs, and revise BMPs to comply with the WLAs in the TMDLs for fecal coliform, metals, organochlorine compounds, selenium, and pesticides if an exceedance occurs, do not mandate a new program or higher level of service. The fecal coliform TMDL became effective in 1999,[8] and the prior 2002 permit identified the wasteload allocations (WLAs) for fecal coliform and imposed the same requirements as the test claim permit. The following specific provisions from the prior permit relating to the fecal coliform TMDL state the following:

- "A fecal coliform TMDL for Newport Bay has also been established. The WLAs from these TMDLs are included in this order. Dischargers to these water bodies are currently implementing these TMDLs. This order specifies the WLAs and includes requirements for the implementation of these WLAs."[9]
- "The permittees shall revise Appendix N of the DAMP [Drainage Area Management Plan] to include *implementation measures* and schedules for further studies related to the TMDL for fecal coliform in Newport Bay, as set forth in the January 2000, March 2000 and April 2000 Newport Bay Fecal Coliform TMDL Technical Reports submitted by the permittees."[10]
- "The permittees shall . . . *monitor* representative areas along the Orange County coastline, as well as a minimum of six inland water bodies/channels, for total coliform, fecal coliform, and Enterococcus in order to determine the impacts of storm water and nonstorm water runoff on loss of beneficial uses to receiving waters. Inland monitoring

[6] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 338 et seq. [Order No. R8-2009-0030].

[7] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 349 [Order No. R8-2009-0030].

[8] Exhibit Q (23), Regional Board Resolution No. 99-10, Fecal Coliform TMDL.

[9] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 403 [Order No. R8-2002-0010, Finding 19].

[10] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 432 [Order No. R8-2002-0010, Section XVI.3].

stations shall be located to include channels/creeks which are currently impaired for pathogens."[11]

The DAMP (mentioned in the second bullet above) is the principal guidance document for urban stormwater management programs in Orange County, and was required to be developed by the claimants to reduce pollutants in urban stormwater runoff to the MEP by the first and second term permits.[12] The prior permit required the claimants to implement management programs, monitoring programs, implementation plans and all BMPs outlined in the DAMP within each respective jurisdiction, and take any other actions as may be necessary to meet the MEP standard.[13] If the permittees detected an exceedance of water quality standards, then the permittees "shall revise the DAMP and monitoring program to incorporate the approved modified BMPs that have been and will be implemented, the implementation schedule, and any additional monitoring required;" and "implement the revised DAMP and monitoring program in accordance with the approved schedule."[14] The prior permit also required the claimants to "demonstrate compliance with all the requirements in this order and specifically with Section III.2 Discharge Limitations and Section IV. Receiving Water Limitations, through timely implementation of their DAMP and any modifications, revisions, or amendments . . . determined by the permittee to be necessary to meet the requirements of this order."[15] The prior permit further required the claimants to "implement additional controls, if any are necessary, to reduce the discharge of pollutants in storm water to the maximum extent practicable as required by this Order."[16]

Moreover, meeting water quality standards for metals, organochlorine compounds, selenium, and pesticides is not new to the claimants; narrative and numeric criteria or objectives existed in the Basin Plan and the CTR before the TMDLs were adopted[17] and compliance with those standards

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[11] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 444 [Order No. R8-2002-0010, Monitoring and Reporting Program, section III.D.1].

[12] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 403, 465 [Order No. R8-2002-0010, Finding 21 and Fact Sheet].

[13] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 410-411 [Order No. R8-2002-0010].

[14] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 414 [Order No. R8-2002-0010].

[15] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 433-434 [Order No. R8-2002-0010].

[16] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 433-434 [Order No. R8-2002-0010].

[17] Exhibit Q (45), Water Quality Control Plan (1995 Basin Plan), pages 63, 70, 67-68, 72; Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 401 [Order No. R8-2002-0010, Finding 40].

was expressly required under the prior permit by performing the same activities as required by the test claim permit. The prior permit:

- Required that discharges from the MS4 shall not cause or contribute to exceedances of receiving water quality standards (designated beneficial uses and water quality objectives).[18]
- Prohibited illegal and illicit non-stormwater discharges from entering into the MS4.[19]
- Required that DAMP and its components be designed to achieve compliance with receiving water limitations through timely implementation of control measures and BMPs.[20]
- Required that if the claimants continue to cause or contribute to an exceedance of water quality standards, the claimants shall promptly notify and submit a report to the Regional Board that describes the BMPs currently implemented and the additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance of water quality standards. Once approved, the claimants shall revise the DAMP and monitoring program to incorporate the approved modified BMPs, and implement the revised program.[21]
- Required the claimants to demonstrate compliance with the discharge limitations and receiving water limitations through timely implementation of their DAMP. "The DAMP, as included in the Report of Waste Discharge, including any approved amendments thereto, is hereby made an enforceable component of this order."[22]
- Required the claimants to implement "additional controls, if any are necessary, to reduce the discharge of pollutants in storm water to the maximum extent practicable as required by this Order."[23]

[18] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 413 [Order No. R8-2002-0010].

[19] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 412 [Order No. R8-2002-0010].

[20] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 413 [Order No. R8-2002-0010].

[21] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 414 [Order No. R8-2002-0010].

[22] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 433 [Order No. R8-2002-0010].

[23] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 433 [Order No. R8-2002-0010].

- Required the claimants to comply with the Monitoring and Reporting Program (R8-2002-0010), which is attached to the Third Term Permit.[24] This program required the claimants to conduct several types of monitoring, including mass emissions monitoring, in order to determine if the MS4 is contributing to exceedances of water quality objectives or beneficial uses by comparing the results to the CTR, the Basin Plan, the Ocean Plan, or other relevant standards. Dry and wet weather monitoring was required and all samples had to be tested for metals, pesticides, "and constituents which are known to have contributed to impairment of local receiving waters."[25]

  The Monitoring and Reporting Program further required the claimants to develop "strategies to evaluate the impact of storm water and non-storm water runoff on all impairments within the Newport Bay watershed and other 303(d) listed bodies."[26] In addition, the Monitoring and Reporting Program states that "[s]ince the 303(d) listing is dynamic, with new waterbodies and new impairments being identified over time, the permittees shall revise their monitoring plan to incorporate new information as it becomes available."[27]

  The claimants' Water Quality Monitoring Program was included in their 2003 DAMP, and shows that the claimants monitored for metals, selenium, diazinon and chlorpyrifos, and other pesticides.[28]

Thus, despite the claimants' arguments to the contrary, the claimants were required by the prior permit to comply with water quality standards for these pollutants, by monitoring, implementing BMPs, and if the monitoring results indicate an exceedance of water quality standards, the claimants had to reevaluate current BMPs or propose new BMPs, and once approved, implement the revised plan. If water quality standards under the prior permit were not met, the claimants could have been held in violation of that permit.[29] Accordingly, the implementation

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[24] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 434, 441 et seq. [Order No. R8-2002-0010].

[25] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 443 [Order No. R8-2002-0010].

[26] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 445 [Order No. R8-2002-0010].

[27] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 445 [Order No. R8-2002-0010].

[28] Exhibit Q (32), Santa Ana Region Water Quality Monitoring Program, February 2003, page 16, https://ocerws.ocpublicworks.com/sites/ocpwocerws/files/2021-03/2003_DAMP_Exhibit-11_III_SantaAnaWaterQualityMonitoring.pdf (accessed November 20, 2022).

[29] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, pages 58-59 (State Water Board, Order WQ 2015-0075); *Building Industry Association of San Diego County v. State Water Resources Control Board* (2004) 124 Cal.App.4th 866; *Natural Resources Defense Council, Inc. v. County of Los Angeles* (2013) 725 F.3d 1194; *City of Rancho Cucamonga v. Regional Water Quality Control Board* (2006) 135 Cal.App.4th 1377.

requirements in Sections XVIII.B.4, XVIII.B.8, XVIII.B.9, XVIII.C.1, and XVIII.D.1 are not new and do not impose a new program or higher level of service.

The Commission further finds that the LID and hydromodification requirements in Sections XII.B. through XII.E. of the test claim permit for new development and significant redevelopment municipal projects do not mandate a new program or higher level of service. There is no legal requirement imposed by the state, or evidence of practical compulsion (certain and severe penalties or other draconian consequences) forcing local government to undertake municipal priority development projects.[30] Therefore, the LID and hydromodification prevention requirements are not mandated by the state. In addition, the activities are not unique to local government, but apply to all priority development projects, and do not provide a peculiarly governmental service to the public within the meaning of article XIII B, section 6, and, thus, do not impose a new program or higher level of service.

In addition, the LID and hydromodification planning activities required by section VII.B.1, to annually review the existing structural treatment control and other BMPs for New Developments, submit any changes for review and approval by the Executive Officer, revise the appropriate tables in the Water Quality Management Plan [WQMP] with the latest information on BMPs, and provide additional clarification regarding their effectiveness and applicability, are *not* new. The claimants were required by the prior permit to perform these activities.[31]

However, the LID and hydromodification planning activities required to be performed by the claimants under their regulatory authority for all new development and significant redevelopment projects pursuant to Sections XII.C.1, XII.D.5, and XII.E.1 (requiring the update of the model WQMP to incorporate LID principles, preparing a Watershed Master Plan to address the hydrologic conditions of concern on a watershed basis, and develop technically-based feasibility criteria for project evaluation to determine the feasibility of implementing LID BMPs) are new, mandated by the state, and impose a new program or higher level of service.

In addition, the test claim permit imposes some new state-mandated programs or higher levels of service pertaining to the Public Education and Outreach Program (Sections XIII.1, XIII.4, and XIII.7 of the test claim permit); the Residential Program (Section XI.4 of the test claim permit); and the Municipal Inspections programs for Industrial and Commercial facilities (Sections XIII.4, IX.1, X.1-3, X.5, and X.8 of the test claim permit).[32]

The Commission further finds that some of the new state-mandated activities result in costs mandated by the state based on the following findings:

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[30] *Department of Finance v. Commission on State Mandates* (*Kern*) (2003) 30 Cal.4th 727, 753; *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355, 1368 (*POBRA*); *Coast Community College Dist. v. Commission on State Mandates* (2022) 13 Cal.5th 800, 815.

[31] Exhibit A, Test Claim, filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 432 [Order No. R8-2002-0010].

[32] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56; *Department of Finance v. Commission on State Mandates* (2021) 59 Cal.App.5th 546, 629.

- There is substantial evidence in the record, as required by Government Code section 17559, that the claimants incurred increased costs exceeding $1,000 and used their local "proceeds of taxes" to comply with the new state-mandated activities.[33]
- Pursuant to article XIII C, section 1(e)(3) of the California Constitution, *Department of Finance v. Commission on State Mandates* (2021) 59 Cal.App.5th 546, and other cases, the claimants have the authority under their police powers and by statute to impose regulatory fees to comply with Sections XIII.4 (the portion requiring inspectors to distribute educational information (Fact Sheets) during their inspections of commercial and industrial facilities), IX.1, X.1-3, X.5, and X.8 of the test claim permit related to the inspection of industrial and commercial facilities, and Sections VII.C.1, XII.D.5, and XII.E.1 of the test claim permit related to LID and hydromodification planning, which are sufficient as a matter of law to cover the costs of these activities pursuant to Government Code section 17556(d) and, thus, there are no costs mandated by the state for these activities.
- The claimants have the authority under their police powers and by statute to impose stormwater fees on property owners to comply with Sections XVIII.8-9, XIII.1, XIII.4, XIII.7, and XI.4 of the test claim permit to submit a proposed Cooperative Watershed Program for the selenium TMDL, develop a constituent-specific source control plan to for the San Gabriel metals TMDL, comply with the new mandated public education activities, and develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies. However, from June 1, 2009 through December 31, 2017 only, and based on the court's holding in *Howard Jarvis Taxpayers Association v. City of Salinas* (2002) 98 Cal.App.4th 1351 (*City of Salinas),* which interpreted article XIII D of the California Constitution as requiring the voter's approval before any stormwater fees can be imposed, there are costs mandated by the state for these activities. When voter approval is required by article XIII D, the claimants do *not* have the authority to levy fees sufficient as a matter of law to cover the costs of these activities within the meaning of Government Code section 17556(d).
- Beginning January 1, 2018, and based on the *Paradise Irrigation District* case and the Legislature's enactment of Government Code sections 57350 and 57351 (which overturned *Howard Jarvis Taxpayers Association v. City of Salinas* (2002) 98 Cal.App.4th 1351), there are *no* costs mandated by the state to comply with the new requirements imposed by Sections XVIII.8-9, XIII.1, XIII.4, XIII.7, and XI.4 of the test claim permit to develop and submit a proposed Cooperative Watershed Program to comply with the selenium TMDL, the public education program, and the requirement to develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies, because claimants have constitutional and statutory authority to charge property-related fees for these costs subject only to the voter protest provisions of article XIII D, which is sufficient as a

[33] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, pages 151-304.

matter of law to cover the costs of the mandated activities within the meaning of Government Code section 17556(d).

Accordingly, the Commission partially approves this Test Claim and finds that the following activities constitute a reimbursable state-mandated program from June 1, 2009, through December 31, 2017 only:

- Submit a proposed Cooperative Watershed Program that will fulfill applicable requirements of the selenium TMDL implementation plan within 24 months of adoption of the test claim permit, or one month after approval of the Regional Board selenium TMDLs by OAL, whichever is later. (Section XVIII.B.8.)[34]
- Develop a "constituent-specific source control plan" for copper, lead, and zinc, including a monitoring program, to ensure compliance" with WLAs for dry and wet weather runoff, which were derived from the 2007 San Gabriel River Metals TMDL jointly developed by the Los Angeles Water Board and U.S. EPA. (Section XVIII.B.9.)[35]
- Public education program:
    - By July 1, 2012, the one-time activity to complete a public awareness survey to determine the effectiveness of the current public and business education strategy, and to include the findings of the survey and any proposed changes to the current program in the annual report for 2011-2012. (Section XIII.1.)[36]
    - Permittees shall administer individual or regional workshops for each of the specified sectors (manufacturing facilities; mobile service industry; commercial, distribution, and retail sales industry; residential/commercial landscape construction and service industry; residential and commercial construction industry; and residential and community activities) by July 1, 2010 and annually thereafter. (Section XIII.4.)[37]
    - The principal permittee, in collaboration with the co-permittees, shall develop and implement a mechanism for public participation in the updating and implementation of DAMPs, WQMP guidance, and Fact Sheets for "various activities." The public shall be informed of the availability of these documents through public notices in

[34] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 343 [Order No. R8-2009-0030, Section XVIII.B.8].

[35] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 343 [Order No. R8-2009-0030, Section XVIII.B.9].

[36] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 332 [Order No. R8-2009-0030, Section XIII.1].

[37] Exhibit A, Joint Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 332 [Order No. R8-2009-0030, Section XIII.4].

local newspapers, County or city websites, local libraries, city halls, or courthouses. (Section XIII.7.)[38]

- Within 18 months of adoption, develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies. (Section XI.4.)[39]

Reimbursement for these activities is denied beginning January 1, 2018, because the claimants have fee authority sufficient as a matter of law to cover the costs of these activities pursuant to Government Code section 17556(d) and, thus, there are no costs mandated by the state.

In addition, reimbursement for these mandated activities from any source, including but not limited to, state and federal funds, any service charge, fee, or assessment authority to offset all or part of the costs of this program, and any other funds that are not the claimant's proceeds of taxes, shall be identified and deducted from any claim submitted for reimbursement.

All other sections, activities, and costs pled in the Test Claim are denied.

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[38] Exhibit A, Joint Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 333 [Order No. R8-2009-0030, Section XIII.7].

[39] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 316-317 [Order No. R8-2009-0030, Section XI.4].

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I. Chronology

05/22/2009	The Test Claim Permit, Santa Ana Regional Water Quality Control Board, Order No. R8-2009-0030 was adopted; the Test Claim Permit became effective on June 1, 2009.[40]
06/30/2010	The claimants filed the Test Claim.[41]
07/09/2010	Commission staff issued the Notice of Complete Test Claim Filing and Schedule for Comments.
07/20/2010	The Department of Finance (Finance) filed a petition for writ of administrative mandamus on the Commission's Decision on Test Claims 03-TC-04, 03-TC-19, 03-TC-20 and 03-TC-21, issued September 3, 2009, which addressed Los Angeles Regional Water Quality Control Board Order No. 01-182, NPDES Permit CAS004001.[42]
07/27/2010-01/21/2011	The Regional Board requested four extensions of time to file comments, which were granted for good cause.
03/09/2011	The Regional Board filed comments on the Test Claim.[43]

[40] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 352 [Order No. R8-2009-0030, p. 82].

[41] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017.

[42] Superior Court of California, County of Sacramento, Case No. 34-2010-80000605. Because this test claim raised issues similar to those being litigated with respect to the Los Angeles Regional Board Order that was the subject of the writ, the Commission placed this claim on inactive status pending the outcome of this litigation.

[43] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011; Exhibit C, Regional Board's Attachments to Comments on the Test Claim, filed March 9, 2011.

03/10/2011	Finance filed comments on the Test Claim.[44]
03/23/2011, and 06/01/2011	The claimants requested two extensions of time to file rebuttal comments, which were granted for good cause.
06/17/2011	The claimants filed rebuttal comments in four volumes.[45]
10/16/2013	The Court of Appeal for the Third District issued its decision in *Department of Finance v. Commission on State Mandates*, Case No. B237153 (Superior Court Case No. 34-2010-80000605).
01/29/2014	The California Supreme Court granted review of *Department of Finance v. Commission on State Mandates*, Case No. S214855 (3d Dist. Court of Appeal Case No. B237153; Superior Court Case No. 34-2010-80000605).
06/08/2016	Commission staff issued the Request for Additional Information seeking the full administrative record of the test claim permit.
06/23/2016	The State and Regional Boards (collectively Water Boards) requested an extension of time to file the administrative record of the Permit, which was approved.
08/05/2016	The Regional Board filed the administrative record of the Permit in three parts.[46]
08/29/2016	The California Supreme Court issued its decision in *Department of Finance v. Commission on State Mandates*, Case No. S214855.
09/21/2016	Commission staff issued a request for additional briefing regarding the Supreme Court's decision in *Department of Finance v. Commission* and notice of a tentative hearing date.[47]

[44] Exhibit D, Finance's Comments on the Test Claim, filed March 10, 2011.

[45] Exhibits E and F, Claimants' Rebuttal Comments, Volumes 1 and 4, filed June 17, 2011. Volume 2 of Claimants' Rebuttal Comments includes copies of the test claim permit, the Fact Sheet, and the prior permit, which are already in Exhibit A, and Volume 3 includes copies of statutes, regulations, and case law cited by the claimants in their rebuttal comments. Because of the enormous size of this record, Volumes 2 and 3 cannot reasonably be included as an exhibit. However, the entirety of Volumes 2 and 3 are available on the Commission's website on the matter page for this test claim: https://csm.ca.gov/matters/09-TC-03/doc28.pdf (Volume 2); https://csm.ca.gov/matters/09-TC-03/doc27.pdf (Volume 3).

[46] Because of its enormous size, this record cannot reasonably be included as an exhibit. Documents contained therein and cited in this document are being included as excerpts. However, the entirety of all three parts are available on the Commission's website on the matter page for this Test Claim: https://csm.ca.gov/matters/09-TC-03.php.

[47] Exhibit G, Request for Additional Briefing and Notice of Tentative Hearing Date, issued September 21, 2016.

10/21/2016	The claimants filed a response to the request for additional briefing.[48]
10/21/2016	Finance filed a response to the request for additional briefing.[49]
10/21/2016	The Regional Board filed a response to the request for additional briefing.[50]
10/28/2016	The claimants filed a late supplemental response to the Request for Additional Briefing.[51]
11/16/2016	The California Supreme Court denied rehearing of *Department of Finance v. Commission on State Mandates*, and issued the final decision.[52]
11/18/2016	Commission staff issued the Notice of Incomplete Joint Test Claim Filing.
12/19/2016	The claimants filed the Response to Notice of Incomplete Joint Test Claim Filing.
12/23/2016	Commission staff issued the Notice of Complete Joint Test Claim Filing and Renaming of Matter.
01/03/2017	Co-claimant, City of Lake Forest, filed a Corrected Test Claim Form.
04/16/2018	The claimants filed an inquiry regarding the hearing date.
04/19/2018	Commission staff issued the Response to Claimants' Inquiry Regarding Hearing Date and Notice of Tentative Hearing Date.
05/03/2018	The claimants filed comments on the response to claimants' inquiry.
07/05/2022	The claimants filed an inquiry regarding the hearing date.
08/17/2022	Commission staff issued the Draft Proposed Decision.[53]

[48] Exhibit J, Claimants' Response to the Request for Additional Briefing, filed October 21, 2016.

[49] Exhibit H, Finance's Response to the Request for Additional Briefing, filed October 21, 2016.

[50] Exhibit I, Regional Board's Response to the Request for Additional Briefing, filed October 21, 2016.

[51] Exhibit K, Claimants' Late Supplemental Response to the Request for Additional Briefing, filed October 28, 2016.

[52] *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749.

[53] Exhibit L, Draft Proposed Decision, issued August 17, 2022.

08/23/2022 - 10/24/2022	The claimants, the Water Boards, Finance, and the Cities of Dublin and Union City and the Alameda Countywide Clean Water Program requested extensions of time to file comments on the Draft Proposed Decision, which were approved for good cause.
11/04/2022	The claimants filed comments on the Draft Proposed Decision.[54]
11/04/2022	The Water Boards filed comments on the Draft Proposed Decision.[55]
11/04/2022	Finance filed comments on the Draft Proposed Decision.[56]
11/04/2022	The Cities of Dublin and Union City and the Alameda Countywide Clean Water Program filed comments on the Draft Proposed Decision.[57]
01/12/2023	Commission staff issued the Proposed Decision for the January 27, 2023 hearing.
01/13/2023	The Water Boards and Finance filed requests to postpone the hearing until the next regularly scheduled hearing, which was granted for good cause.

II. Background

A. History of the Federal Regulation of Municipal Stormwater

The law commonly known today as the Clean Water Act (CWA) is the result of major amendments to the Federal Water Pollution Control Act enacted in 1977. The history that follows details the evolution of the federal law and implementing regulations which are applicable to the case at hand. The bottom line is that CWA's stated goal is to *eliminate* the discharge of pollutants into the nation's waters by 1985.[58] "*This goal is to be achieved through the enforcement of the strict timetables and technology-based effluent limitations established by the Act.*"[59] The CWA utilizes a permit program that was established in 1972, the National Pollutant Discharge Elimination System (NPDES), as the primary means of enforcing the Act's effluent limitations. As will be made apparent by the following history, the goal of eliminating the discharge of pollutants into the nation's waters was still far from being achieved as of 2009,

[54] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022.

[55] Exhibit N, Water Boards' Comments on the Draft Proposed Decision, filed November 4, 2022.

[56] Exhibit O, Finance's Comments on the Draft Proposed Decision, filed November 4, 2022.

[57] Exhibit P, Cities of Dublin's and Union City's and the Alameda Countywide Clean Water Program's Comments on the Draft Proposed Decision, filed November 4, 2022.

[58] United States Code, title 33, section 1251(a)(1).

[59] *Natural Res. Def. Council v. Costle* (D.C.Cir.1977) 568 F.2d 1369, 1371 (emphasis added).

when the test claim permit was issued, and the enforcement, rather than being strict, has taken an iterative approach, at least with respect to municipal stormwater dischargers.

Regulation of water pollution in the United States finds its beginnings in the Rivers and Harbors Appropriation Act of 1899, which made it unlawful to throw or discharge "any refuse matter of any kind or description…into any navigable water of the United States, or into any tributary of any navigable water."[60] This prohibition survives in the current United States Code today, qualified by more recent provisions of law that authorize the issuance of discharge permits with specified restrictions to ensure that such discharges will not degrade water quality or cause or contribute to the violation of any water quality standards set for the water body by the United States Environmental Protection Agency (US EPA) or by states on behalf of US EPA.[61]

In 1948, the Federal Water Pollution Control Act "adopted principles of state and federal cooperative program development, limited federal enforcement authority, and limited federal financial assistance."[62] Pursuant to further amendments to the Act made in 1965, "States were directed to develop water quality standards establishing water quality goals for interstate waters." However, the purely water quality-based approach "lacked enforceable Federal mandates and standards, and a strong impetus to implement plans for water quality improvement. The result was an incomplete program that in Congress' view needed strengthening."[63]

Up until 1972, many states had "water quality standards" that attempted to limit pollutant concentrations in their lakes, rivers, streams, wetlands, and coastal waters. Yet the lack of efficient and effective monitoring and assessment tools and the sheer difficulty in identifying pollutant sources resulted in a cumbersome, slow, ineffective system that was unable to reverse growing pollution levels in the nation's waters. In 1972, after earlier state and federal laws failed to sufficiently improve water quality, and rivers that were literally on fire provoked public outcry, the Congress passed the Federal Water Pollution Control Act Amendments, restructuring the authority for water pollution control to regulate individual point source dischargers and generally prohibit the discharge of any pollutant to navigable waters from a point source unless the discharge was authorized by a NPDES permit. The 1972 amendments also consolidated authority in the Administrator of US EPA.

In 1973, US EPA adopted regulations to implement the Act which provided exclusions for several types of discharges including "uncontrolled discharges composed entirely of storm runoff when these discharges are uncontaminated by any industrial or commercial activity" and have

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[60] United States Code, title 33, section 401 (Mar. 3, 1899, c. 425, § 13, 30 Stat. 1152).

[61] See United States Code, title 33, sections 1311-1342 (CWA 301(a) and 402); Code of Federal Regulations, title 40, section 131.12.

[62] Exhibit Q (40), U.S. EPA, Advanced Notice of Proposed Rule Making (Federal Register / Vol. 63, No. 129 / July 7, 1998 / Proposed Rules), https://www.gpo.gov/fdsys/pkg/FR-1998-07-07/pdf/98-17513.pdf (accessed December 15, 2017), page 4.

[63] Exhibit Q (40), U.S. EPA, Advanced Notice of Proposed Rule Making (Federal Register / Vol. 63, No. 129 / July 7, 1998 / Proposed Rules), https://www.gpo.gov/fdsys/pkg/FR-1998-07-07/pdf/98-17513.pdf (accessed December 15, 2017).

not been identified "as a significant contributor of pollution."[64] This particular exclusion applied only to municipal separate storm sewer systems (MS4s). As a result, as point source pollutant loads were addressed effectively by hundreds of new treatment plants, the problem with polluted runoff (i.e., both nonpoint source pollution and stormwater discharges) became more evident.

However, in 1977 the Court in *Natural Resources Defense Council v. Costle* held that EPA had no authority to exempt point source discharges, including stormwater discharges from MS4s, from the requirements of the Act and that to do so contravened the Legislature's intent.[65] The Act prohibits "the discharge of any pollutant by any person" without an NPDES permit.[66] The term "discharge of a pollutant" means "any addition of any pollutant to navigable waters from *any* point source."[67] A "point source" is any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.[68] Thus, when an MS4 discharges stormwater contaminated with pollutants from a pipe, ditch, channel, gutter or other conveyance, it is a point source discharger subject to the requirements of the CWA to obtain and comply with an NPDES permit or else be found in violation of the CWA.

Stormwater runoff "…is generated from rain and snowmelt events that flow over land or impervious surfaces, such as paved streets, parking lots, and building rooftops, and does not soak into the ground."[69] Polluted stormwater runoff is commonly transported through MS4s, and then often discharged, untreated, into local water bodies.[70] As the Ninth Circuit Court of Appeal has stated:

> Storm water runoff is one of the most significant sources of water pollution in the nation, at times "comparable to, if not greater than, contamination from industrial and sewage sources." [Citation omitted.] Storm sewer waters carry suspended metals, sediments, algae-promoting nutrients (nitrogen and phosphorus), floatable trash, used motor oil, raw sewage, pesticides, and other toxic contaminants into streams, rivers, lakes, and estuaries across the United States. [Citation omitted.]

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[64] Code of Federal Regulations, title 40, sections 124.5 and 124.11 (30 FR 18003, July 5, 1973).

[65] *Natural Res. Def. Council v. Costle* (D.C.Cir.1977) 568 F.2d 1369, 1379 (holding unlawful EPA's exemption of stormwater discharges from NPDES permitting requirements).

[66] United States Code, title 33, section 1311(a).

[67] United States Code, title 33, section 1362(12)(A) (emphasis added).

[68] United States Code, title 33, section 1362(14).

[69] See United States Code, title 33, section 122.26(b)(13) and Exhibit Q (44), U.S. EPA, National Pollutant Discharge Elimination System (NPDES) Stormwater Program, Problems with Stormwater Pollution, https://www.epa.gov/npdes/npdes-stormwater-program (accessed August 10, 2017).

[70] Exhibit Q (43), U.S. EPA, NPDES Stormwater Program, Stormwater Discharges from Municipal Sources, https://www.epa.gov/npdes/stormwater-discharges-municipal-sources, (accessed December 2, 2022), page 3.

> In 1985, three-quarters of the States cited urban storm water runoff as a major cause of waterbody impairment, and forty percent reported construction site runoff as a major cause of impairment. Urban runoff has been named as the foremost cause of impairment of surveyed ocean waters. Among the sources of storm water contamination are urban development, industrial facilities, construction sites, and illicit discharges and connections to storm sewer systems.[71]

Major amendments to the Federal Water Pollution Control Act were enacted in the federal Clean Water Act of 1977, and the federal act is now commonly referred to as the Clean Water Act (CWA). CWA's stated goal is to eliminate the discharge of pollutants into the nation's waters by 1985.[72] "This goal is to be achieved through the enforcement of the strict timetables and technology-based effluent limitations established by the Act."[73]

MS4s are thus established point sources subject to the CWA's NPDES permitting requirements.[74]

In 1987, to better regulate pollution conveyed by stormwater runoff, Congress enacted CWA section 402(p), codified at United States Code, title 33, section 1342(p), "Municipal and Industrial Stormwater Discharges." Sections 1342(p)(2) and (3) require NPDES permits for stormwater discharges "associated with industrial activity," discharges from large and medium-sized municipal storm sewer systems, and certain other discharges. Section 402(p)(4) sets out a timetable for promulgation of the first of a two-phase overall program of stormwater regulation with the first permits to issue by not later than 1991 or 1993, depending on the size of the population served by the MS4.[75]

Generally, NPDES permits issued under the CWA must "contain limits on what you can discharge, monitoring and reporting requirements, and other provisions to ensure that the

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[71] *Environmental Defense Center, Inc. v. EPA* (9th Cir. 2003) 344 F.3d 832, 840-841(citing *Natural Res. Def. Council v. EPA* (9th Cir. 1992) 966 F.2d 1292, 1295, and Regulation for Revision of the Water Pollution Control Program Addressing Storm Water (64 Fed.Reg. 68722, 68724, 68727 (December 8, 1999) codified at 40 Code of Federal Regulations parts. 9, 122, 123, and 124)).

[72] United States Code, title 33, section 1251(a)(1).

[73] *Natural Res. Def. Council v. Costle* (D.C.Cir.1977) 568 F.2d 1369, 1371.

[74] *Natural Res. Def. Council v. Costle* (D.C.Cir.1977) 568 F.2d 1369, 1379 (holding unlawful EPA's exemption of stormwater discharges from NPDES permitting requirements); Natural Res. Def. *Council v. U.S. EPA*, 966 F.2d 1292, 1295- 1298.

[75] United States Code, title 33, section 1342(p)(2)-(4); *Natural Res. Def. Council v. U.S. EPA*, 966 F.2d 1292, 1296.

discharge does not hurt water quality or people's health."[76] A NPDES permit specifies "an acceptable level of a pollutant or pollutant parameter in a discharge." [77]

With regard to MS4s specifically, the 1987 amendments require control technologies that reduce pollutant discharges to the maximum extent practicable (MEP), including best management practices (BMPs), control techniques and system design and engineering methods, and such other provisions as the Administrator[78] deems appropriate for the control of such pollutants.[79] A statutory anti-backsliding requirement was also added to preserve present pollution control levels achieved by dischargers by prohibiting the adoption of less stringent effluent limitations[80] than those already contained in their discharge permits, except in certain narrowly defined circumstances.[81]

The United States Supreme Court has observed the cooperative nature of water quality regulation under the CWA as follows:

> The Clean Water Act anticipates a partnership between the States and the Federal Government, animated by a shared objective: "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." (33 U.S.C. § 1251(a).) Toward this end, the Act provides for two sets of water quality measures. "Effluent limitations" are promulgated by the EPA and restrict the quantities, rates, and concentrations of specified substances which are discharged from point sources. (See §§ 1311, 1314.) "[W]ater quality standards" are, in general, promulgated by the States and establish the desired condition of a waterway. (See § 1313.) These standards supplement effluent limitations "so that numerous point sources, despite individual compliance with effluent limitations, may be further regulated to prevent water quality from falling below acceptable

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[76] Exhibit Q (42), U.S. EPA, NPDES Permit Basics, https://www.epa.gov/npdes/npdes-permit-basics (accessed July 17, 2020).

[77] Exhibit Q (42), U.S. EPA, NPDES Permit Basics, https://www.epa.gov/npdes/npdes-permit-basics (accessed July 17, 2020).

[78] Defined in United States Code, title 33, section 1251(d) (section 101(d) of the CWA) as the Administrator of the U. S. Environmental Protection Agency.

[79] United States Code, title 33, section 1342(p)(3). This is in contrast to the "best available technology" standard that applies to the treatment of industrial discharges (see United States Code, title 33, section 1311(b)(2)(A)).

[80] The Senate and Conference Reports from the 99th Congress state that these additions were intended to "clarify the Clean Water Act's prohibition of backsliding on effluent limitations." See H.R. Conf. Rep. No. 99-1004 (1986) (emphasis added); see also S. Rep. No. 99-50, 45 (1985).

[81] United States Code, title 33, section 1342(o); see Joint Explanatory Statement of the Committee of Conference, H.R.Conf. Rep. No. 99-1004, 153 (1986).

levels." (*EPA v. California ex rel. State Water Resources Control Bd.,* 426 U.S. 200, 205, n. 12, 96 S.Ct. 2022, 2025, n. 12, 48 L.Ed.2d 578 (1976).)[82]

The CWA thus employs two primary mechanisms for controlling water pollution: identification and standard-setting for bodies of water (i.e. 303(d) listings of impaired water bodies and the setting of water quality standards), and identification and regulation of dischargers (i.e., the inclusion of effluent limitations consistent with water quality standards in NPDES permits).

In 1990, pursuant to CWA section 1342, EPA issued the "Phase I Rule" regulating large and medium MS4s. The Phase I Rule and later amendments thereto, in addition to generally applicable provisions of the CWA and its implementing regulations and other state and federal environmental laws, apply to the permit at issue in this Test Claim.

B. Key Definitions

i. *Water Quality Standards*

A "water quality standard" defines the water quality goals of a water body, or portion thereof, by designating the use or uses to be made of the water and by setting criteria that protect the designated uses.[83] The term "water quality standard applicable to such waters" and "applicable water quality standards" refer to those water quality standards established under section 303 of the CWA, including numeric criteria, narrative criteria, waterbody uses, and antidegradation requirements which may be adopted by the federal or state government and may be found in a variety of places including but not limited to 40 Code of Federal Regulations 131.36, 131.38, and California state adopted water quality control plans and basin plans.[84] A TMDL is a regulatory term in the CWA, describing a plan for restoring impaired waters that identifies the maximum amount of a pollutant that a body of water can receive while still meeting water quality standards. Federal law requires the states to adopt an anti-degradation policy which at minimum protects existing uses and requires that existing high quality waters be maintained to the maximum extent possible unless certain findings are made.[85]

The water quality criteria can be expressed in narrative form, which are broad statements of desirable water quality goals, or in a numeric form, which identifies specific pollutant concentrations.[86] When water quality criteria are met, water quality will generally protect the designated use."[87] Federal regulations state the purpose of a water quality standard as follows:

> A water quality standard defines the water quality goals of a water body, or portion thereof, by designating the use or uses to be made of the water and by setting criteria that protect the designated uses. States adopt water quality

[82] *Arkansas v. Oklahoma* (1992) 503 U.S. 91, pages 101-102.

[83] Code of Federal Regulations, title 40, part 131.2.

[84] Code of Federal Regulations, title 40, part 130.7(b)(3).

[85] Code of Federal Regulations, title 40, part 131.12.

[86] *City of Arcadia v. State Water Resources Control Board* (2006) 135 Cal.App.4th 1392, 1403.

[87] Code of Federal Regulations, title 40, section 131.3(b).

> standards to protect public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act (the Act). "Serve the purposes of the Act" (as defined in sections 101(a)(2) and 303(c) of the Act) means that water quality standards should, wherever attainable, provide water quality for the protection and propagation of fish, shellfish and wildlife and for recreation in and on the water and take into consideration their use and value of public water supplies, propagation of fish, shellfish, and wildlife, recreation in and on the water, and agricultural, industrial, and other purposes including navigation.[88]

With respect to standard-setting for bodies of water, section 1313(a) of the United States Code provides that existing water quality standards may remain in effect unless the standards are not consistent with the CWA, and that the Administrator "shall promptly prepare and publish" water quality standards for any waters for which a state fails to submit water quality standards, or for which the standards are not consistent with the CWA.[89] In addition, states are required to hold public hearings from time to time but "at least once each three year period" for the purpose of reviewing applicable water quality standards and, as appropriate, modifying and adopting standards:

> Whenever the State revises or adopts a new standard, such revised or new standard shall be submitted to the [US EPA] Administrator. Such revised or new water quality standard shall consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses. Such standards shall protect the public health or welfare, enhance the quality of water and serve the purposes of this chapter. Such standards shall be established taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, industrial, and other purposes, and also taking into consideration their use and value for navigation.[90]

In general, if a body of water is identified as impaired under section 303(d) of the CWA, it is necessarily exceeding one or more of the relevant water quality standards.[91]

ii. *Total Maximum Daily Loads (TMDLs).*

Section 303(d) of the CWA, codified at United States Code, title 33, section 1313(d), requires that each state "identify those waters within its boundaries for which the effluent

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[88] Code of Federal Regulations, title 40, section 131.2.

[89] United States Code, title 33, section 1313(a), note that section 1313 was last amended by 114 Stat. 870, effective Oct. 10, 2000.

[90] United States Code, title 33, section 1313(c)(2)(A), effective October 10, 2000.

[91] See United States Code, title 33, section 1313(d)(1)(A) (codifying CWA § 303(d) and stating: "Each State shall identify [as impaired] those waters within its boundaries for which the effluent limitations … are not stringent enough to implement any water quality standard applicable to such waters. The State shall establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters.")

limitations…are not stringent enough to implement any water quality standard applicable to such waters." The identification of waters not meeting water quality standards is called an "impairment" finding, and the priority ranking is known as the "303(d) list."[92] The state is required by the Act to "establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters."[93]

After the waters are ranked, federal law requires that "TMDLs shall be established at levels necessary to attain and maintain the applicable narrative and numerical WQS [water quality standards] with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality. Determinations of TMDLs shall take into account critical conditions for stream flow, loading, and water quality parameters."[94] A TMDL is defined as the sum of the amount of a pollutant allocated to *all point sources* (*i.e.*, the sum of all waste load allocations, or WLAs), plus the amount of a pollutant allocated for nonpoint sources and natural background. A TMDL is essentially a plan setting forth the amount of a pollutant allowable that will attain the water quality standard necessary for beneficial uses.[95]

303(d) lists and TMDLs are required to be submitted to the Administrator "not later than one hundred and eighty days after the date of publication of the first identification of pollutants under section 1314(a)(2)(D) [of the CWA]" and thereafter "from time to time," and the Administrator "shall either approve or disapprove such identification and load not later than thirty days after the date of submission."[96] A complete failure by a state to submit a TMDL for a pollutant received by waters designated as "water quality limited segments" pursuant to the CWA, will be construed as a constructive submission of no TMDL, triggering a nondiscretionary duty of the federal EPA to establish a TMDL for the state.[97] If the Administrator disapproves the 303(d) List or a TMDL, the Administrator "shall not later than thirty days after the date of such disapproval identify such waters in such State and establish such loads for such waters as he determines necessary to implement [water quality standards]."[98] Finally, the identification of waters and setting of standards and TMDLs is required as a part of a state's "continuing planning process approved [by the Administrator] which is consistent with this chapter."[99]

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[92] Code of Federal Regulations, title 40, part 130.7(d)(1); see also *San Francisco Baykeeper, Inc. v. Browner* (N.D. Cal 2001) 147 F.Supp.2d 991, 995.

[93] United States Code, title 33, section 1313(d)(1)(A).

[94] Code of Federal Regulations, title 40, part 130.7(c)(1).

[95] Code of Federal Regulations, title 40, part 130.2.

[96] United States Code, title 33, section 1313(d)(2); See also *San Francisco Baykeeper, Inc. v. Browner* (N.D. Cal. 2001) 147 F. Supp. 2d 991, 995.

[97] United States Code, title 33, section 1313(d)(1)(A, C) and (d)(2); See also *San Francisco Baykeeper, Inc. v. Browner* (9th Circuit, 2002) 297 F.3d 877.

[98] United States Code, title 33, section 1313(d)(2).

[99] United States Code, title 33, section 1313(d-e).

If a TMDL has been established for a body of water identified as impaired under section 303(d), an NPDES permit must contain limitations that "must control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above any [s]tate water quality standard, including [s]tate narrative criteria for water quality."[100] And, for new sources or discharges, the limitations must ensure that the source or discharge will not cause or contribute to the violation of water quality standards and will not violate the TMDL.[101]

iii. *Municipal Separate Storm Sewer System (MS4)*

A "Municipal Separate Storm Sewer System" (or MS4) refers to a collection of structures designed to gather stormwater and discharge it into local streams and rivers. A storm sewer contains untreated water, so the water that enters a storm drain and then into a storm sewer enters rivers, creeks, or the ocean at the other end is the same water that entered the system.

iv. *Best Management Practices (BMPs)*

The acronym "BMP" is short for Best Management Practice. In the context of water quality, BMPs are methods, or practices designed and selected to reduce or eliminate the discharge of pollutants to surface waters from point and non-point source discharges including storm water. BMPs include but are not limited to structural and nonstructural controls and operation and maintenance procedures. BMPs can be applied before, during, and after pollution-producing activities.

C. Specific Federal Legal Provisions Relating to Stormwater Pollution Prevention

1. Federal Antidegrdation Policy

When a TMDL has not been established, however, a permit may be issued provided that the new source does not degrade water quality in violation of the applicable anti-degradation policy. Any increase in loading of a pollutant to a waterbody that is impaired because of that pollutant would degrade water quality in violation of the applicable anti-degradation policy. Federal law, section 40 Code of Federal Regulations section 131.12(a)(1), requires the state to adopt and implement an anti-degradation policy that will "maintain the level of water quality necessary to protect existing (in stream water) uses."

NPDES permits must include conditions to achieve water quality standards and objectives and generally may not allow dischargers to backslide.[102]

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[100] Code of Federal Regulations, title 40, section 122.44(d)(1)(i), emphasis added.

[101] Code of Federal Regulations, title 40, section 122.4(i). See also Code of Federal Regulations, title 40, section 130.2(i); *Friends of Pinto Creek v. EPA* (9th Cir.2007) 504 F.3d 1007, 1011 ("A TMDL specifies the maximum amount of a particular pollutant that can be discharged or loaded into the waters from all combined sources, so as to comply with the water quality standards.").

[102] United States Code, title 33, section 1311(b)(1)(C), which states that "in order to carry out the objective of this chapter there shall be achieved . . . any more stringent limitation, including those necessary to meet water quality standards"; 33 U.S.C. section 1342(o)(3), which states that

2. Requirement to Effectively Prohibit Non-Stormwater Discharges

CWA section 402(p)(3)(B)(ii) requires that permits for MS4s "shall include a requirement to effectively prohibit non-storm water discharges into the storm sewers."

3. Standard Setting for Dischargers of Pollutants: NPDES Permits

Section 1342 of the CWA provides for the NPDES program, the final piece of the regulatory framework under which discharges of pollutants are regulated and permitted, and applies whether or not a TMDL has been established. Section 1342 states that "the Administrator may, after opportunity for public hearing, issue a permit for the discharge of any pollutant, or combination of pollutants, notwithstanding section 1311(a) of this title."[103] Section 1342 further provides that states may submit a plan to administer the NPDES permit program, and that upon review of the state's submitted program "[t]he Administrator shall authorize a State, which he determines has the capability of administering a permit program which will carry out the objective of this chapter to issue permits for discharges into the navigable waters within the jurisdiction of such State."[104]

Whether issued by the Administrator or by a state permitting program, all NPDES permits must ensure compliance with the requirements of sections 1311, 1312, 1316, 1317, and 1343 of the Act; must be for fixed terms not exceeding five years; can be terminated or modified for cause, including violation of any condition of the permit; and must control the disposal of pollutants into wells.[105] In addition, NPDES permits are generally prohibited, with some exceptions, from containing effluent limitations that are "less stringent than the comparable effluent limitations in the previous permit."[106] An NPDES permit for a point source discharging into an impaired water body must be consistent with the WLAs made in a TMDL, if a TMDL is approved and is applicable to the water body.[107]

4. The Federal Toxics Rules (40 CFR 131.36 and 131.38)

In 1987, Congress amended CWA section 303(c)(2) by adding subparagraph (B) which requires that a state, whenever reviewing, revising, or adopting new water quality standards, must adopt numeric criteria for all toxic pollutants listed pursuant to section 307(a)(1) for which criteria

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"In no event may such a permit to discharge into waters be renewed, reissued, or modified to contain a less stringent effluent limitation if the implementation of such limitation would result in a violation of a water quality standard under section 1313 of this title applicable to such waters"; and 40 Code of Federal Regulations section 122.44(d)(1), which states that NPDES permits must include "any requirements in addition to or more stringent than promulgated effluent limitations guidelines . . . necessary to . . . [a]chieve water quality standards established under section 303 of the CWA."

[103] United States Code, title 33, section 1342(a)(1).

[104] United States Code, title 33, section 1342(a)(5); (b).

[105] United States Code, title 33, section 1342(b)(1).

[106] United States Code, title 33, section 1342(o).

[107] Code of Federal Regulations, title 40, section 122.44(d).

have been published under section 304(a). Section 303(c)(4) of the CWA authorizes the U.S. EPA Administrator to promulgate standards where necessary to meet the requirements of the Act. The federal criteria below are legally applicable in the State of California for inland surface waters, enclosed bays, and estuaries for all purposes and programs under the CWA.

5. National Toxics Rule (NTR)

For the 14 states that did not timely adopt numeric criteria as required, U.S. EPA promulgated the National Toxics Rule (NTR) on December 22, 1992.[108] About 40 criteria in the NTR apply in California.

6. The California Toxics Rule (CTR)

The "California Toxics Rule" is also a federal regulation, notwithstanding its somewhat confusing name. On May 18, 2000, U.S. EPA adopted the CTR. The CTR promulgated new toxics criteria for California to supplement the previously adopted NTR criteria that applied in the State. U.S. EPA amended the CTR on February 13, 2001. EPA promulgated this rule to fill a gap in California water quality standards that was created in 1994 when a State court overturned the State's water quality control plans which contained water quality criteria for priority toxic pollutants, leaving the State without numeric water quality criteria for many priority toxic pollutants as required by the CWA.

California had not adopted numeric water quality criteria for toxic pollutants as required by CWA section 303(c)(2)(B), which was added to the CWA by Congress in 1987 and was the only state in the nation for which CWA section 303(c)(2)(B) had remained substantially unimplemented after EPA's promulgation of the NTR in December of 1992.[109] The Administrator determined that this rule was a necessary and important component for the implementation of CWA section 303(c)(2)(B) in California.

In adopting the CTR, U.S. EPA states:

> EPA is promulgating this rule based on the Administrator's determination that numeric criteria are necessary in the State of California to protect human health and the environment. The Clean Water Act requires States to adopt numeric water quality criteria for priority toxic pollutants for which EPA has issued criteria guidance, the presence or discharge of which could reasonably be expected to interfere with maintaining designated uses.

And:

> Numeric criteria for toxic pollutants allow the State and EPA to evaluate the adequacy of existing and potential control measures to protect aquatic ecosystems and human health. Numeric criteria also provide a more precise basis for deriving water quality-based effluent limitations (WQBELs) in National Pollutant Discharge Elimination System (NPDES) permits and wasteload allocations for total maximum daily loads (TMDLs) to control toxic pollutant discharges.

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[108] Exhibit Q (13), Federal Register, Volume 57, Number 246 (NTR), page 142.

[109] Exhibit Q (12), Federal Register, Volume 65, Number 97 (CTR), page 7.

Congress recognized these issues when it enacted section 303(c)(2)(B) to the CWA.

D. The California Water Pollution Control Program

1. Porter-Cologne

California's water pollution control laws were substantially overhauled in 1969 with the Porter-Cologne Water Quality Control Act (Porter-Cologne).[110] Beginning with section 13000, Porter-Cologne provides:

> The Legislature finds and declares that the people of the state have a primary interest in the conservation, control, and utilization of the water resources of the state, and that the quality of all the waters of the state shall be protected for use and enjoyment by all the people of the state.
>
> The Legislature further finds and declares that activities and factors which may affect the quality of the waters of the state shall be regulated to attain the highest water quality which is reasonable, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible.
>
> The Legislature further finds and declares that the health, safety, and welfare of the people of the state requires that there be a statewide program for the control of the quality of all the waters of the state…and that the statewide program for water quality control can be most effectively administered regionally, within a framework of statewide coordination and policy.[111]

The state water pollution control program was again modified, beginning in 1972, so that the code would substantially comply with the federal CWA, and "on May 14, 1973, California became the first state to be approved by the EPA to administer the NPDES permit program."[112]

Section 13160 provides that the State Water Resources Control Board (State Board) "is designated as the state water pollution control agency for all purposes stated in the Federal Water Pollution Control Act…[and is] authorized to exercise any powers delegated to the state by the Federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.) and acts amendatory thereto."[113] Section 13001 describes the state and regional boards as being "the principal state agencies with primary responsibility for the coordination and control of water quality."

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[110] Water Code section 13020 (Stats. 1969, ch. 482).

[111] Water Code section 13000 (Stats. 1969, ch. 482).

[112] *County Sanitation Dist. No. 2 of Los Angeles County v. County of Kern* (Cal. Ct. App. 5th Dist. 2005) 127 Cal.App.4th 1544, at pp. 1565-1566. See also Water Code section 13370 *et seq*.

[113] Water Code section 13160 (Stats. 1969, ch. 482; Stats. 1971, ch. 1288; Stats 1976, ch. 596).

To achieve the objectives of conserving and protecting the water resources of the state, and in exercise of the powers delegated, Porter-Cologne, like the CWA, employs a combination of water quality standards and point source pollution controls.[114]

Under Porter Cologne, the nine regional boards' primary regulatory tools are the water quality control plans, also known as basin plans.[115] These plans fulfill the planning function for the water boards, are regulations adopted under the Administrative Procedure Act with a specialized process,[116] and provide the underlying basis for most of the regional board's actions (e.g., NPDES permit conditions, cleanup levels). Basin plans consist of three elements:

- Determination of beneficial uses;
- Water quality objectives to reasonably protect beneficial uses; and
- An implementation program to achieve water quality objectives.[117]

Porter Cologne sections 13240-13247 address the development and implementation of regional water quality control plans (i.e. basin plans), including "water quality objectives," defined in section 13050 as "the limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area."[118] Section 13241 provides that each regional board "shall establish such water quality objectives in water quality control plans as in its judgment will ensure the reasonable protection of beneficial uses and the prevention of nuisance." The section directs the regional boards to consider, when developing water quality objectives:

(a) Past, present, and probable future beneficial uses of water.

(b) Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.

(c) Water quality conditions that could reasonably by achieved through the coordinated control of all factors which affect water quality in the area.

(d) Economic considerations.

(e) The need for developing housing within the region.

(f) The need to develop and use recycled water.[119]

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[114] Water Code section 13142 (Stats. 1969, ch. 482; Stats. 1971, ch. 1288; Stats. 1979, ch. 947; Stats. 1995, ch. 28).

[115] Water Code sections 13240-13247.

[116] Water Code sections 11352–11354.

[117] Water Code section 13050(j), see also section 13241.

[118] Water Code section 13050 (Stats. 1969, ch. 482; Stats. 1969, ch. 800; Stats. 1970, ch. 202; Stats. 1980, ch. 877; Stats. 1989, ch. 642; Stats. 1991, ch. 187 (AB 673); Stats. 1992, ch. 211 (AB 3012); Stats. 1995, ch. 28 (AB 1247), ch. 847 (SB 206); Stats. 1996, ch. 1023 (SB 1497)).

[119] Water Code section 13241 (Stats. 1969, ch. 482; Stats. 1979, ch. 947; Stats. 1991, ch. 187 (AB 673)).

Beneficial uses, in turn, are defined in section 13050 as including, but not limited to "domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves."[120] In addition, section 13243 permits a regional board to define "certain conditions or areas where the discharge of waste, or certain types of waste, will not be permitted."[121]

Sections 13260-13274 address the development of "waste discharge requirements," which section 13374 states "is the equivalent of the term 'permits' as used in the Federal Water Pollution Control Act, as amended."[122] Section 13263 permits the regional boards, after a public hearing, to prescribe waste discharge requirements "as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge, except discharges into a community sewer system." Section 13263 also provides that the regional boards "need not authorize the utilization of the full waste assimilation capacities of the receiving waters," and that the board may prescribe requirements although no discharge report has been filed, and may review and revise requirements on its own motion. The section further provides that "[a]ll discharges of waste into waters of the state are privileges, not rights."[123] Section 13377 permits a regional board to issue waste discharge requirements "which apply and ensure compliance with all applicable provisions of the [Federal Water Pollution Control Act]."[124] In effect, sections 13263 and 13377 permit the issuance of waste discharge requirements concurrently with an NPDES permit if a discharge is to waters of both California and the United States.

The California Supreme Court explained the interplay between state and federal law in *Department of Finance v. Commission on State Mandates* as follows:

> California was the first state authorized to issue its own pollutant discharge permits. (Citations omitted.) Shortly after the CWA's enactment, the Legislature amended the Porter–Cologne Act, adding chapter 5.5 (Wat. Code, § 13370 et seq.) to authorize state issuance of permits (Wat. Code, § 13370, subd. (c)). The Legislature explained the amendment was "in the interest of the people of the state, in order to avoid direct regulation by the federal government of persons already subject to regulation under state law pursuant to [the Porter–Cologne Act]." (*Ibid*.) The Legislature provided that Chapter 5.5 be "construed to ensure consistency" with the CWA. (Wat. Code, § 13372, subd. (a).) It directed that state and regional boards issue waste discharge requirements "ensur[ing] compliance with all applicable provisions of the [CWA] ... *together with any more stringent*

[120] Water Code section 13050 (Stats. 1969, ch. 482; Stats. 1969, ch. 800; Stats. 1970, ch. 202; Stats. 1980, ch. 877; Stats. 1989, ch. 642; Stats. 1991, ch. 187 (AB 673); Stats. 1992, ch. 211 (AB 3012); Stats. 1995, ch. 28 (AB 1247); Stats. 1995, ch. 847 (SB 206); Stats. 1996 ch. 1023 (SB 1497)).

[121] Water Code section 13243 (Stats. 1969, ch. 482).

[122] Water code section 13374 (Stats. 1972, ch. 1256).

[123] Water Code section 13263(a-b); (g) (Stats. 1969, ch. 482; Stats. 1992, ch. 211 (AB 3012) Stats. 1995, ch. 28 (AB 1247), ch. 421 (SB 572)).

[124] Water Code section 13377 (Stats. 1972, ch. 1256; Stats. 1978, ch. 746).

effluent standards or limitations necessary to implement water quality control plans, or for the protection of beneficial uses, or to prevent nuisance." (Wat. Code, § 13377, italics added.) To align the state and federal permitting systems, the legislation provided that the term " 'waste discharge requirements' " under the Act was equivalent to the term " 'permits' " under the CWA. (Wat. Code, § 13374.) Accordingly, California's permitting system now regulates discharges under both state and federal law. (Citations omitted.)

In 1987, Congress amended the CWA to clarify that a permit is required for any discharge from a municipal storm sewer system serving a population of 100,000 or more. (33 U.S.C. § 1342(p)(2)(C), (D).) Under those amendments, a permit may be issued either on a system- or jurisdiction-wide basis, must effectively prohibit nonstorm water discharges into the storm sewers, and must "require controls to reduce the discharge of pollutants *to the maximum extent practicable*." (33 U.S.C. § 1342(p)(3)(B), italics added.) The phrase "maximum extent practicable" is not further defined. How that phrase is applied, and by whom, are important aspects of this case.

EPA regulations specify the information to be included in a permit application. (See 40 C.F.R. § 122.26(d)(1)(i)-(vi), (d)(2)(i)-(viii).) Among other things, an applicant must set out a proposed management program that includes management practices; control techniques; and system, design, and engineering methods to reduce the discharge of pollutants to the maximum extent practicable. (40 C.F.R. § 122.26(d)(2)(iv).) The permit-issuing agency has discretion to determine which practices, whether or not proposed by the applicant, will be imposed as conditions. (*Ibid*.)[125]

2. California's Antidegradation Policy (State Water Resources Control Board Resolution NO. 68-16 adopted October 24, 1968)

In 1968, the State Board adopted Resolution 68-16, formally entitled "Statement of Policy With Respect to Maintaining High Quality of Waters In California," to prevent the degradation of surface waters where background water quality is higher than the established level necessary to protect beneficial uses. That executive order states the following:

WHEREAS the California Legislature has declared that it is the policy of the State that the granting of permits and licenses for unappropriated water and the disposal of wastes into the waters of the State shall be so regulated as to achieve highest water quality consistent with maximum benefit to the people of the State and shall be controlled so as to promote the peace, health, safety and welfare of the people of the State; and

WHEREAS water quality control policies have been and are being adopted for waters of the State; and

WHEREAS the quality of some waters of the State is higher than that established by the adopted policies and it is the intent and purpose of this Board that such

[125] *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 757.

higher quality shall be maintained to the maximum extent possible consistent with the declaration of the Legislature;

NOW, THEREFORE, BE IT RESOLVED:

Whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality will be maintained until it has been demonstrated to the State that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies.

Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.

In implementing this policy, the Secretary of the Interior will be kept advised and will be provided with such information as he will need to discharge his responsibilities under the Federal Water Pollution Control Act.

State Board Resolution 68-16, Statement of Policy With Respect to Maintaining High Quality of Waters in California, is the policy that the State asserts incorporates the federal antidegradation policy. The Water Quality Control Plans in turn (i.e. Basin Plans) require conformity with State Board Resolution 68-16. Therefore, any provisions in a permit that are inconsistent with the State's anti-degradation policy are also inconsistent with the Basin Plan.

3. Administrative Procedures Update, Antidegradation Policy Implementation for NPDES Permitting, 90-004

The May 1990 Administrative Procedures Update, entitled Antidegradation Policy Implementation for NPDES Permitting, APU 90-004, provides guidance for the State's regional boards in implementing the State Board's Resolution No. 68-16, Statement of Policy With Respect to Maintaining High Quality of Waters in California, and the Federal Antidegradation Policy, as set forth in Code of Federal Regulations, title 40, part 131.12. It states that "If baseline water quality is equal to or less than the quality as defined by the water quality objective, water quality shall be maintained or improved to a level that achieves the objectives."[126]

[126] Exhibit Q (34), State Water Resources Control Board Administrative Procedures Update 90-004, page 4.

4. Statewide Plans: The Ocean Plan, the California Inland Surface Waters Plan (ISWP), and, the Enclosed Bays and Estuaries Plan (EBEP)

California has adopted an Ocean Plan, applicable to interstate waters, and two other state-wide plans which establish water quality criteria or objectives for all fresh waters, bays and estuaries in the State.

a. California Ocean Plan

Section 303(c)(3)(A) of the CWA provides that "[a]ny State which prior to October 18, 1972, has not adopted pursuant to its own laws water quality standards applicable to intrastate waters shall, not later than one hundred and eighty days after October 18, 1972, adopt and submit such standards to the [U.S. EPA] Administrator." Section 303(c)(3)(C) further provides that "[i]f the [U.S. EPA] Administrator determines that any such standards are not consistent with the applicable requirements of this Act as in effect immediately prior to October 18, 1972, he shall, not later than the ninetieth day after the date of submission of such standards, notify the State and specify the changes to meet such requirements. If such changes are not adopted by the State within ninety days after the date of notification, the Administrator shall promulgate such standards pursuant to subsection (b) of this section." Thus, beginning October 18, 1972, states were required to adopt water quality laws applicable to intrastate waters or else allow the U.S. EPA to adopt such standards for them.

California's first adopted its Ocean Plan in July 6, 1972, and as applicable to this test claim, has amended it in 1978, 1983, 1988, 1990, 1997, 2001, 2005.[127] The Ocean Plan was also amended in 2009 and five times thereafter, after the adoption of the test claim permit.

b. The California Inland Surface Waters Plan (ISWP) and the Enclosed Bays and Estuaries Plan (EBEP)

On April 11, 1991, the State Board adopted two statewide water quality control plans, the California Inland Surface Waters Plan (ISWP) and the Enclosed Bays and Estuaries Plan (EBEP). These statewide plans contained narrative and numeric water quality criteria for toxic pollutants, in part to satisfy CWA section 303(c)(2)(B). The water quality criteria contained in

[127] California's first adopted its Ocean Plan in July 6, 1972, and has amended it in 1978 (Order 78-002, adopted 1/19/1978), 1983 (Order 83-087, adopted 11/17/1983), 1988 (Order 88-111, adopted 9/22/1988), 1990 (Order 90-027, amendment regarding new water quality objectives in Table B, adopted 3/22/1990), 1997 (Order 97-026, amendment regarding revisions to the list of critical life stage protocols used in testing the toxicity of waste discharges, adopted 3/20/1997), 2001 (Order 2000-108, amendment regarding Table A, chemical water quality objectives, provisions of compliance, special protection for water quality and designated uses, and administrative changes, adopted 11/16/2000), 2005 (Order 2005-0013, amendment regarding Water Contact Bacterial Standards, adopted 1/20/2005; Order 2005-0035, amendments regarding (1) Reasonable Potential, Determining When California Ocean Plan Water Quality-Based Effluent Limitations are Required, and (2) Minor Changes to the Areas of Special Biological Significance, and Exception Provisions, 4/21/2005) and 2009 (Order 2009-0072, amendments to regarding total recoverable metals, compliance schedules, toxicity definitions, and the list of exceptions, adopted 9/15/2009).

these statewide plans, together with the designated uses in each of the Basin Plans, created a set of water quality standards for waters within the State of California.

Specifically, the two plans established water quality criteria or objectives for all fresh waters, bays and estuaries in the State.

Section 303(c)(2)(B) of the federal CWA requires that states adopt numeric criteria for priority pollutants for which EPA has issued criteria guidance, as part of the states' water quality standards. As discussed above, U.S. EPA promulgated these criteria in the CTR in 2000 because the State court overturned two of California's water quality control plans (the ISWP and the EBEP) in 1994 and the State failed to promulgate new plans, so the State was left without enforceable standards. The federal toxics criteria apply to the State of California for inland surface waters, enclosed bays, and estuaries for "all purposes and programs under the CWA" and are commonly known as "the California Toxics Rule" (CTR).[128] There are 126 chemicals on the federal CTR[129] and the State Implementation Policy (SIP) for Implementation of the Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries adds another 6 isomers of chlorinated dioxins and 10 isomers of chlorinated furans for optional use in California (however, these are required to be used in the California Ocean Plan).

The EBEP was later adopted with respect to sediment quality objectives for toxic pollutants by the State Board on September 16, 2008 (Resolution No. 2008-0070), effective on January 5, 2009, and has been amended twice after the adoption of the test claim permit on April 6, 2011 (Resolution No. 2011-0017), effective on June 8, 2011 and June 5, 2018 (Resolution No. 2018-0028), effective March 11, 2019.

Likewise, the following adopted amendments, all of which were adopted after the test claim permit at issue in this case, were incorporated into the ISWP:

- Part 1: Trash Provisions, adopted on April 7, 2015 (Resolution No. 2015-0019), effective on December 2, 2015
- Part 2: Tribal Subsistence Beneficial Uses and Mercury Provisions, adopted on May 2, 2017 (Resolution No. 2017-0027), effective on June 28, 2017
- Part 3: Bacteria Provisions and Variance Policy, adopted on August 7, 2018 (Resolution No. 2018-0038), effective on February 4, 2019
- State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (for waters of the United States only), adopted on April 2, 2019 (Resolution No. 2019-0015), effective on May 28, 2020

5. Basin Plans (also known as Water Quality Control Plans)

The Basin Plan is a regional board's master water quality control planning document for a particular water basin. It designates beneficial uses and water quality objectives for waters of the State, including surface waters and groundwater. It also must include any TMDL programs of

[128] Code of Federal Regulations, title 40, Part 131, May 18, 2000.

[129] See Code of Federal Regulations, title 40, Part 131, May 18, 2000.

implementation to achieve water quality objectives.[130] Basin Plans must be adopted by the regional board and approved by the State Board, the California Office of Administrative Law (OAL), and U.S. EPA, in the case of action on surface waters standards.[131]

E. The History of the Test Claim Permit

The Regional Board issued the earliest municipal storm water permit for the co-permittees in 1990 (hereafter, "First Term Permit").[132] The First Term Permit stated that the Orange County Flood Control District (OCFCD) serves an area of approximately 511 square miles, including 400 miles of storm drain systems.[133]

The Regional Board adopted the Water Quality Control Plan (Basin Plan) in 1983, containing water quality objectives and beneficial uses of waters in the region, and in July 1989 adopted a Basin Plan amendment, incorporating revised beneficial use designations for the ground and surface waters of the region.[134] In addition, the California Ocean Plan, amended in 1990, "contains revised water quality objectives for California ocean waters in accordance with Section 303(c)(I) of the Clean Water Act and Section 13170.2(b) of the California Water Code."[135] The First Term Permit explained that "[t]he requirements contained in this order are necessary to implement the Ocean Plan and the Water Quality Control Plan."[136] The First Term Permit identified the receiving waters affected by storm drain systems within the County, including, but not limited to, the Santa Ana River, San Diego Creek, Lower and Upper Newport Bay, and portions of the San Gabriel River.[137] The First Term Permit further explained:

> Numeric and narrative water quality standards exist for these water bodies. Currently, this permit does not contain numeric limitations for any constituents [i.e., pollutants] because the impact of stormwater discharges on the water quality of the above named receiving waters has not been fully determined. Extensive water quality monitoring and analysis of the data are essential to make that

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[130] Water Code section 13241.

[131] Water Code section 13245; Title 33, United States Code, section 1313(c)(1).

[132] Exhibit B, Regional Board's Comments on Test Claim, filed March 9, 2011, page 3.

[133] Exhibit C, Regional Board's Attachments to Comments on the Test Claim, filed March 9, 2011, page 595 [Order No 90-71]. Note that some of the receiving waters affected by the storm drain systems within the County are within the jurisdiction of the San Diego Regional Board, and are regulated by Order number 90-38, and subsequent orders.

[134] Exhibit C, Regional Board's Attachments to Comments on the Test Claim, filed March 9, 2011, page 597 [Order No 90-71].

[135] Exhibit C, Regional Board's Attachments to Comments on the Test Claim, filed March 9, 2011, page 597 [Order No 90-71].

[136] Exhibit C, Regional Board's Attachments to Comments on the Test Claim, filed March 9, 2011, page 597 [Order No 90-71].

[137] Exhibit C, Regional Board's Attachments to Comments on the Test Claim, filed March 9, 2011, pages 597-598 [Order No 90-71].

> determination. This order requires the dischargers to continue to monitor the stormwater discharges or begin monitoring as necessary, and to analyze the data. Additionally, the order also requires development and implementation of best management practices (BMPs) in accordance with the [Water Quality Act] of 1987. It is anticipated that with the implementation of BMPs by the dischargers, the pollutants in the stormwater runoff will be reduced and the quality of the receiving waters will be improved. The ultimate goal of the urban stormwater runoff management program is to attain water quality consistent with the water quality objectives for the receiving waters to protect the beneficial uses.[138]

The First Term Permit required generally that dischargers (meaning the MS4 permittees) "shall prohibit illegal discharges from entering into the municipal storm drain systems" and "shall develop and implement best management practices (BMPs) to control discharge of pollutants to the maximum extent practicable to waters of the United States."[139] Maximum extent practicable, in turn, was defined to mean "to the maximum extent possible, taking into account equitable considerations of synergistic, additive, and competing factors, including but not limited to, gravity of the problem, fiscal feasibility, public health risks, societal concern, and social benefits."[140]

The First Term Permit further required the dischargers to turn over any data on stormwater discharges to the MS4s, including historical averages and extremes; information for identification and characterization of the sources of pollutants, including land use activities and drainage areas; any information on illicit discharges to the MS4s; a description of existing stormwater management programs and structural or non-structural BMPs implemented; a description of existing monitoring programs; information regarding the discharge of pollutants; and "any other existing information that is pertinent to this permit."[141]

The First Term Permit also required dischargers to conduct a "reconnaissance survey" to detect illicit discharges or possible leaks or spills, and then to prosecute and eliminate illegal discharges;[142] to develop and implement a Drainage Area Management Plan (DAMP), including BMPs to control the discharge of pollutants;[143] to develop and implement a Stormwater System

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[138] Exhibit C, Regional Board's Attachments to Comments on the Test Claim, filed March 9, 2011, page 599 [Order No 90-71].

[139] Exhibit C, Regional Board's Attachments to Comments on the Test Claim, filed March 9, 2011, page 603 [Order No 90-71].

[140] Exhibit C, Regional Board's Attachments to Comments on the Test Claim, filed March 9, 2011, page 603 [Order No 90-71].

[141] Exhibit C, Regional Board's Attachments to Comments on the Test Claim, filed March 9, 2011, pages 604-606 [Order No 90-71].

[142] Exhibit C, Regional Board's Attachments to Comments on the Test Claim, filed March 9, 2011, pages 606-608 [Order No 90-71].

[143] Exhibit C, Regional Board's Attachments to Comments on the Test Claim, filed March 9, 2011, pages 609-611 [Order No 90-71].

Monitoring Plan and Receiving Water Monitoring Plan, designed to measure the effectiveness of BMPs and the extent of compliance with water quality objectives; and finally, to enact or maintain the necessary legal authority to effectively enforce the permit's terms and requirements, and prohibit illicit discharges.[144]

That First Term Permit was amended in 1996, by order number 96-31 ("Second Term Permit"). The Second Term Permit again noted that although the "plans and policies contain numeric and narrative water quality standards…[t]his order does not contain numeric effluent limitations for any constituents because the impact of the storm water discharges on the water quality of the receiving waters has not yet been fully determined."[145] The Second Term Permit contained several expectations and responsibilities that were more specific than the First Term Permit, but generally required permittees to monitor and inspect their MS4s; maintain legal authority within the jurisdiction to prohibit illicit discharges; pursue enforcement actions as necessary; and coordinate with one another in the implementation of the water quality objectives.[146]

With respect to discharge limitations, the Second Term Permit required permittees to prohibit illicit discharges, and "require controls to reduce the discharge of pollutants to the maximum extent practicable." In addition, the Second Term Permit stated that the discharge of storm water from the permittees' storm sewer systems to waters of the United States "containing pollutants which have not been reduced to the maximum extent practicable is prohibited."[147] The Second Term Permit went on to state that receiving water limitations have been established based on beneficial uses, and for key constituents, and that the permittees "shall not cause continuing or recurring impairment of beneficial uses or exceedances of water quality objectives." However, the Second Term Permit provided that the permittees "will not be in violation of this provision so long as…" they participate in a review of their Drainage Area Management Plan (DAMP) and revise it as necessary (and implement any revisions called for) in cooperation with the Regional Board.[148] And, the Second Term Permit required the permittees to develop a training program for inspections, and to continue public outreach and public education efforts.[149]

In addition, the Second Term Permit required permittees to prepare an Environmental Performance Report to address public agency facilities and activities "not currently required to

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[144] Exhibit C, Regional Board's Attachments to Comments on the Test Claim, filed March 9, 2011, pages 611-614 [Order No 90-71].

[145] Exhibit C, Regional Board's Attachments to Comments on the Test Claim, filed March 9, 2011, page 647 [Order No. 96-31].

[146] Exhibit C, Regional Board's Attachments to Comments on the Test Claim, filed March 9, 2011, pages 648-650 [Order No. 96-31].

[147] Exhibit C, Regional Board's Attachments to Comments on the Test Claim, filed March 9, 2011, page 650 [Order No. 96-31].

[148] Exhibit C, Regional Board's Attachments to Comments on the Test Claim, filed March 9, 2011, pages 652-653 [Order No. 96-31].

[149] Exhibit C, Regional Board's Attachments to Comments on the Test Claim, filed March 9, 2011, pages 655-656 [Order No. 96-31].

obtain coverage under the State's general storm water permits," and to annually report on actions taken by the permittees to eliminate discharges of pollutants at public agency facilities.[150] Further, for municipal construction projects that may result in land disturbance of five acres or more, the permittees were required to notify the Executive Officer of the Regional Board, and develop and implement a Storm Water Pollution Prevention Plan and a monitoring program.[151]

In 1999, the Regional Board adopted an amendment to the Water Quality Control Plan for the Santa Ana River Basin to establish a Total Maximum Daily Load (TMDL) for fecal coliform bacteria in Newport Bay.[152] That TMDL specified numeric water quality objectives for fecal coliform bacteria in Newport Bay to protect water contact recreation and shellfish harvesting, both identified as beneficial uses for the water body.[153] The 1999 Resolution states that "[t]he TMDL-related Basin Plan amendment…requires the implementation of [BMPs] to control bacterial inputs to provide a reasonable assurance that water quality standards will be met."[154, 155] However, the 1999 Resolution did not contain a numeric WLA for urban runoff, including stormwater. The attachment to the order stated that "[a] prioritized, phased approach to the control of bacterial quality in the Bay…is appropriate, given the complexity of the problem, the paucity of relevant data on bacterial sources and fate, the expected difficulties in identifying and implementing appropriate control measures, and uncertainty regarding the nature and attainability of the [shellfish harvesting beneficial use] in the Bay."[156] Accordingly, the numeric limit for urban runoff is required "[a]s soon as possible but no later than (14 years after State TMDL Approval)."[157] In addition, the 1999 TMDL Order required the County of Orange,

[150] Exhibit C, Regional Board's Attachments to Comments on the Test Claim, filed March 9, 2011, page 656 [Order No. 96-31].

[151] Exhibit C, Regional Board's Attachments to Comments on the Test Claim, filed March 9, 2011, page 657 [Order No. 96-31].

[152] Exhibit C, Regional Board's Attachments to Comments on the Test Claim, filed March 9, 2011, Attachment 31, page 376 [Resolution No. 99-10].

[153] Exhibit C, Regional Board's Attachments to Comments on the Test Claim, filed March 9, 2011, Attachment 31, page 376 [Resolution No. 99-10].

[154] Exhibit C, Regional Board's Attachments to Comments on the Test Claim, filed March 9, 2011, Attachment 31, page 377 [Resolution No. 99-10].

[155] Exhibit B, Regional Board's Comments on Test Claim, filed March 9, 2011, page 3 [citing Santa Ana Regional Board Orders 90-71, 96-31, R8-2002-0010].

[156] Exhibit C, Regional Board's Attachments to Comments on the Test Claim, filed March 9, 2011, Attachment 31, page 381 [Attachment to Resolution No. 99-10].

[157] Exhibit C, Regional Board's Attachments to Comments on the Test Claim, filed March 9, 2011, Attachment 31, page 383 [Attachment to Resolution No. 99-10].

among others, to submit several planning documents to identify and characterize point sources of fecal coliform, including urban runoff into Newport Bay.[158]

In 2002, the Regional Board further amended the stormwater permit for the County of Orange, the Orange County Flood Control District, and the co-permittees ("Third Term Permit").[159] The Third Term Permit noted that since 1998 a number of water bodies within the area have been listed as impaired, including San Diego Creek, Reaches 1 and 2; Upper and Lower Newport Bay; Anaheim Bay; Huntington Harbor; Santiago Creek; and Silverado Creek.[160] Accordingly, and pursuant to federal regulations, TMDLs were adopted for San Diego Creek and Newport Bay, for some of the constituent pollutants identified as causing the impairment.[161] The Third Term Permit therefore "specifies the WLAs and includes requirements for the implementation of these WLAs."[162] The Third Term Permit summarized the prior permits:

> Order No. 90-71 (first term permit) required the permittees to: (1) develop and implement the DAMP and a storm water and receiving water monitoring plan; (2) eliminate illegal and illicit discharges to the MS4s; and (3) enact the necessary legal authority to effectively prohibit such discharges. The overall goal of these requirements was to reduce pollutant loadings to surface waters from urban runoff to the maximum extent practicable (MEP). Order No. 96-31 (second term permit) required continued implementation of the DAMP and the monitoring plan, and required the permittees to focus on those areas that threaten beneficial uses.[163]

The Third Term Permit went on to state that it "outlines additional steps for an effective storm water management program and specifies requirements to protect the beneficial uses of all receiving waters." In addition, "[t]his order requires the permittees to examine sources of pollutants in storm water runoff from activities which the permittees conduct, approve, regulate

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[158] Exhibit C, Regional Board's Attachments to Comments on the Test Claim, filed March 9, 2011, Attachment 31, page 391 [Attachment to Resolution No. 99-10].

[159] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 397 [Order No. R8-2002-0010].

[160] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 402 [Order No. R8-2002-0010].

[161] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 402-403 [Order No. R8-2002-0010 (Compare Finding 18, stating impairment findings for San Diego Creek and Upper and Lower Newport Bay for metals, pesticides, pathogens, nutrients and sedimentation, to Finding 19, stating TMDLs developed for sediment and nutrients, and for fecal coliform in Newport Bay.)].

[162] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 403 [Order No. R8-2002-0010].

[163] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 403 [Order No. R8-2002-0010].

and/or authorize by issuing a license or permit."[164] Accordingly, the Third Term Permit stated that "it is the Regional Board's intent that this order require the implementation of best management practices to reduce to the maximum extent practicable, the discharge of pollutants in storm water from the MS4s in order to support attainment of water quality standards."[165] Specifically, the Third Term Permit stated that a "discharge of storm water from the MS4s to waters of the United States containing pollutants that have not been reduced to the maximum extent practicable is prohibited,"[166] and that discharges from the MS4s "for which a Permittee is responsible, shall not cause or contribute to a condition of nuisance, as that term is defined in Section 13050 of the Water Code."[167] The Third Term Permit further provided that discharges from the MS4s must not cause exceedances of water quality standards for surface waters or ground water, but "[i]f permittees continue to cause or contribute to an exceedance of water quality standards," the permittees can ensure compliance with the permit by promptly notifying the Executive Officer, including a report on BMPs that are currently being implemented and additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance of water quality standards.[168] In other words, "the order includes a procedure for determining whether storm water discharges are causing exceedances of receiving water limitations and for evaluating whether the DAMP must be revised in order to comply with this aspect of the order." The Third Term Permit thus "establishes an *iterative process to maintain compliance with the receiving water limitations*."[169]

The Third Term Permit further required permittees to "continue to prohibit all illegal connections to the MS4s…" and if "routine inspections or dry weather monitoring indicate any illegal connections, they shall be investigated and eliminated or permitted within 120 days."[170] And, the Third Term Permit required each permittee to develop and maintain a computerized inventory of all construction sites within its jurisdiction where soil will be moved or cement will be mixed; to prioritize those sites for inspection as high, medium, or low threat to water quality; and to conduct construction site inspections, including an evaluation of the effectiveness of

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[164] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 403 [Order No. R8-2002-0010].

[165] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 407 [Order No. R8-2002-0010].

[166] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 412 [Order No. R8-2002-0010].

[167] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 413 [Order No. R8-2002-0010].

[168] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 413-414 [Order No. R8-2002-0010].

[169] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 407 [Order No. R8-2002-0010].

[170] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 416 [Order No. R8-2002-0010].

BMPs, at frequencies determined by the high, medium, or low threat designation.[171] Permittees were required to enforce their ordinances and permits at all construction sites to maintain compliance with the Order.[172] In addition, each permittee was required to develop and maintain a computerized inventory of industrial and commercial facilities that have the potential to discharge pollutants to the MS4, and to prioritize those facilities as high, medium, or low threat to water quality. Permittees were then required to inspect those facilities with a frequency based on the threat designation, and enforce all ordinances and permits as necessary.[173]

And, with respect to new development and significant redevelopment, the Third Term Permit required permittees to undertake certain activities and exercise oversight to "minimize the short and long-term impacts on receiving water quality from new developments and re-developments…"[174] Specifically, permittees were required to "review their planning procedures and CEQA document preparation processes to ensure that urban runoff-related issues are properly considered and addressed…" review "watershed protection principles and policies in their General Plan…" review, and "as necessary revise their current grading/erosion control ordinances…" and "through conditions of approval, ensure proper maintenance and operation of any permanent flood control structures installed in new developments."[175]

Additionally, the Third Term Permit required permittees to review existing BMPs for potential improvements or revisions, and submit a revised WQMP for urban runoff from new development/significant redevelopment projects. The WQMP must include BMPs for source control, pollution prevention, and/or structural treatment BMPs; and must "reflect consideration of the following goals, which may be addressed through on-site and/or watershed-based BMPs[:]"

> a. The pollutants in post-development runoff shall be reduced using controls that utilize best available technology (BAT) and best conventional technology (BCT).
>
> b. The discharge of any listed pollutant to an impaired waterbody on the 303(d) list shall not cause an exceedence [sic] of receiving water quality objectives.[176]

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[171] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 417 [Order No. R8-2002-0010].

[172] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 418 [Order No. R8-2002-0010].

[173] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 418-422 [Order No. R8-2002-0010].

[174] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 422 [Order No. R8-2002-0010].

[175] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 423-424 [Order No. R8-2002-0010].

[176] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 425 [Order No. R8-2002-0010].

The Third Term Permit articulated volume-based or flow-based requirements for structural BMPs, and provided that "structural infiltration BMPs" must be designed to protect groundwater, and shall not cause a nuisance or exceedance of groundwater water quality objectives.[177]

The Third Term Permit further required that permittees continue to implement public education efforts, and complete a public awareness survey to determine the effectiveness of the current public and business education strategy.[178] Permittees were required to, when feasible, participate in joint outreach with other programs and other municipal storm water programs to ensure a consistent message, and to sponsor or staff a table or booth at community events to distribute educational materials to the public.[179] Further, by March 1, 2002, permittees were required to establish a Public Education Committee, which shall meet at least twice per year, and shall make recommendations on the public and business education program. The Committee was also required by November 15, 2002 to "propose a study for measuring changes in knowledge and behavior as a result of the education program."[180] Permittees were also required to "develop public education materials to encourage the public to report (including a hotline number and web site to report) illegal dumping and unauthorized, non-storm water discharges from residential , industrial, construction and commercial sites into public streets, storm drains, and other waterbodies…"[181] And, by July 1, 2003, permittees were required to "develop BMP guidance for the control of those potentially polluting activities not otherwise regulated by any agency…" including household use of fertilizers, pesticides, herbicides and other chemicals, mobile vehicle maintenance, carpet cleaners, commercial landscape maintenance, and pavement cutting.[182]

With respect to municipal facilities and activities, the Third Term Permit required each permittee to "implement the recommendations in the Environmental Performance Report to ensure that public agency facilities and activities do not cause or contribute to a pollution or nuisance in receiving waters."[183] Further, permittees shall complete an assessment of their flood control facilities to "evaluate opportunities to configure and/or reconfigure channel segments to function

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[177] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 426-427 [Order No. R8-2002-0010].

[178] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 427 [Order No. R8-2002-0010].

[179] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 427 [Order No. R8-2002-0010].

[180] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 428 [Order No. R8-2002-0010].

[181] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 428 [Order No. R8-2002-0010].

[182] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 428 [Order No. R8-2002-0010].

[183] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 428 [Order No. R8-2002-0010].

as pollution control devices…"[184] The principal permittee was required, by July 1, 2002, to develop and distribute "model maintenance procedures for public agency activities such as street sweeping; catch basin stenciling; [and] drainage facility inspection, cleaning and maintenance."[185] The principal permittee was also required by July 1, 2002, to develop and distribute BMP guidance for "public agency and contract field operations and maintenance staff" on appropriate pollution control measures, how to respond to spills, and reports of illegal discharges.[186] And, the principal permittee was required to provide annual training to public agency staff and contract field operations staff with respect to "fertilizer and pesticide management, model maintenance procedures, implementation of environmental performance reporting program and other pollution control measures."[187] Permittees were required to "attend at least three of these training sessions during the five year term of this permit."[188] By July 1, 2004, the permittees were required to develop and submit for approval a more aggressive program for cleaning out drainage facilities, including catch basins, and with frequencies between monthly and annually, based on priority factors such as distance to receiving waters, beneficial uses and impairments of beneficial uses, historical pollutant types and loads, and the presence of downstream facilities.[189]

Finally, the Third Term Permit required permittees to meet target load allocations for nutrients in urban runoff, including nitrogen and phosphorus in the Newport Bay watershed; and allocations for sediment in urban runoff for Newport Bay and San Diego Creek. However, the Third Term Permit provided that permittees "shall meet the following target load allocations…by implementing the BMPs contained in [the appendices] of the DAMP…" and in accordance with the implementation plan for the applicable TMDLs.[190] In other words, implementing BMPs constitutes "compliance" with the TMDLs. Then, by July 1 of each year, the permittees were required to evaluate the DAMP "to determine whether any revisions are necessary in order to reduce pollutants in MS4 discharges to the maximum extent practicable." The first annual review was also required to include a review of the formal training needs of municipal

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[184] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 429 [Order No. R8-2002-0010].

[185] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 429 [Order No. R8-2002-0010].

[186] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 429 [Order No. R8-2002-0010].

[187] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 429 [Order No. R8-2002-0010].

[188] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 429 [Order No. R8-2002-0010].

[189] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 429 [Order No. R8-2002-0010].

[190] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 430-432 [Order No. R8-2002-0010].

employees, and a review of coordinating meeting/training for NPDES inspectors.[191] The Third Term Permit stated that "[t]his order expires on January 18, 2007 and the permittees must file a Report of Waste Discharge (permit application) no later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements."[192]

F. The Test Claim Permit, Order No. R8-2009-0030

In accordance with Code of Federal Regulations, title 40, section 122.26(d), section 13260 of the California Water Code, and the requirements of the Third Term Permit, the co-permittees filed a Report of Waste Discharge (ROWD), which starts the NPDES permit renewal process, as part of the iterative stormwater management program, on July 21, 2006. The ROWD "discusses the Permittees' Third Term Permit compliance activities and includes a description of accomplishments, an assessment of program effectiveness, and a proposed management program (a draft 2007 Drainage Area Management Plan ("DAMP")) for the period 2007-2012."[193] The report "identified many positive program outcomes and, where the assessments indicated the need for improvement, proposed changes and added program development commitments to the Drainage Area Management Plan (DAMP)."[194] Specifically, the ROWD contained the following, as described by the Regional Board in its draft permit renewal:

> a) A summary of status of current Storm Water Management Program;
>
> b) A Proposed Plan of Storm Water Quality Management Activities for 2007-[2012], as outlined in the Draft 2007 Drainage Area Management Plan (DAMP). The 2007 DAMP includes all the activities the permittees propose to undertake during the next permit term, goals and objectives of such activities, and an evaluation of the need for additional source control and/or structural and non-structural BMPs and proposed pilot studies;
>
> c) The permittees have developed Local Implementation Plans (LIPs); established a formal training program; and developed a program effectiveness assessment strategy and Watershed Action Plans;
>
> d) A Performance Commitment that includes new and existing program elements and compliance schedules necessary to implement controls to reduce pollutants to the maximum extent practicable;
>
> e) A summary of procedures implemented to detect illegal discharges and illicit connection practices;

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[191] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 432 [Order No. R8-2002-0010].

[192] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 434 [Order No. R8-2002-0010].

[193] Exhibit C, Regional Board's Attachments to Comments on the Test Claim, filed March 9, 2011, page 418 [Report of Waste Discharge, July 21, 2006].

[194] Exhibit Q (2), City of Fullerton's Comments on Draft Permit, January 20, 2009, page 1 [Administrative Record on Order No. R8-2009-0030, Part I].

f) A summary of enforcement procedures and actions taken to require storm water discharges to comply with the approved Storm Water Management Program;

g) A summary of public agency activities, results of monitoring program, and program effectiveness assessment; and,

h) A fiscal analysis.[195]

The Regional Board then released a draft permit on November 10, 2008, and scheduled a public workshop on the draft for November 21, 2008.[196] At that workshop, the Regional Board presented several changes in the draft permit, including increased permittee accountability through Water Quality Management Plan (WQMP) review and the adoption of a Local Implementation Plan (LIP); municipal inspection program changes emphasizing abandoned or idle construction sites, and recalibrating prioritization criteria for construction sites, as well as improving enforcement on mobile cleaning services, and adding residential inspections; and, the 2008 draft permit "emphasizes the use of Low Impact Development (LID) as a way of mitigating development's effect on flows and pollutant loading."[197] After voluminous public comment and subsequent public hearings, the Regional Board adopted the test claim permit, Order No. R8-2009-0030, on May 22, 2009.[198]

The test claim permit and its explanatory Fact Sheet total over 120 pages, and include a substantial amount of background material, as well as a number of provisions carried over from the Third Term Permit. Accordingly, the following provisions are alleged in this Test Claim to impose reimbursable state-mandated activities and costs.

- Sections XVIII.B.1 through XVIII.B.5, XVIII.B.7 through XVIII.B.9, XVIII.C.1, and XVIII.D.1 address activities that implement TMDLs adopted by U.S. EPA or the Regional Board, and pre-TMDL requirements.[199]
- Section XII. of the permit addresses Low Impact Development (LID) and Hydromodification requirements for new development and significant redevelopment,

[195] Exhibit Q (14), First Draft of Tentative Order No. R8-2008-0030, page 7 [Administrative Record on Order No. R8-2009-0030, Part I].

[196] Exhibit Q (14), First Draft of Tentative Order No. R8-2008-0030, page 1 [Administrative Record on Order No. R8-2009-0030, Part I].

[197] Exhibit Q (21), Presentation, *Orange County MS4 Permit Urban Storm Water Runoff Management Program*, November 21, 2008, pages 1-21 [Administrative Record on Order No. R8-2009-0030, Part I].

[198] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 68; 317 [Order No. R8-2009-0030].

[199] See Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 63.

including specific planning requirements in Sections XII.B.1., XII.C.1, XII.D.5, and XII.E.1;[200]

- Section XIII. of the permit addresses activities related to Public Education and Outreach;[201]
- Section XI. of the permit addresses a Residential Program intended to reduce discharges from residential facilities and residential areas and activities;[202] and
- Sections IX. and X. of the permit address activities relating to municipal inspections of industrial and commercial facilities, including developing and maintaining a GIS database of defined categories of industrial and commercial facilities.[203]

III. Positions of the Parties

A. Claimants' Position

The claimants include the County of Orange and Orange County Flood Control District, which is named the "principal permittee" in the test claim permit, as well as fourteen of the co-permittee incorporated cities within the Regional Board's jurisdiction.[204] The claimants allege new state-mandated reimbursable activities arising from the adoption by the Regional Board of an updated stormwater discharge permit, Order No. R8-2009-0030. The claimants allege that these new requirements constitute a state-mandated local program, in excess of the federal requirements of the Clean Water Act and regulations; and, claimants allege that they do not have fee authority sufficient to cover the costs of the mandated activities.

1. The Claimants Allege New Activities Under Five General Program Areas of the Permit.

The claimants seek reimbursement for the costs incurred under the following five general program areas of the test claim permit, listed in the order presented in the Test Claim:

a. The claimants contend that several requirements in Section XVIII. of the permit impose a new state-mandated program involving implementation of TMDLs. Specifically, the claimants seek reimbursement for Sections XVIII.B.1 through 5, XVIII.B.7 through XVIII.B.9, XVIII.C.1, and XVIII.D.1, which are alleged to

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[200] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 81-90.

[201] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 90-94.

[202] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 94-97.

[203] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 97-103.

[204] The cities that filed jointly with the County of Orange include: Anaheim, Brea, Buena Park, Costa Mesa, Cypress, Fountain Valley, Fullerton, Huntington Beach, Irvine, Lake Forest, Newport Beach, Placentia, Seal Beach, and Villa Park.

impose "specific numeric waste load allocations or load allocations" based on "either the EPA promulgated TMDLs for toxic pollutants…or Regional Board promulgated TMDLs for other toxic pollutants which have not yet been 'approved by EPA pursuant to 40 CFR 130.7.'"[205] The claimants assert that "all of the adopted or to be adopted TMDLs referenced in [the test claim order] have been based on what is known as the 'California Toxics Rule'…adopted by EPA in May of 2000."[206] Yet, claimants argue, "a review of CTR itself, as well as EPA's Responses to Comments made in connection with CTR…even further confirms that TMDLs, once approved by EPA, impose no specific federal mandates on the State, but only trigger 'a number of discretionary choices' for the State to make."[207] The claimants argue that the CTR was not intended to impose numeric effluent limits on municipal dischargers: "Instead, EPA stated that with respect to Stormwater permits, 'compliance with water quality standards through the use of Best Management Practice (BMPs) is appropriate.'"[208] Claimants conclude that "[a]s such, each of the TMDL Programs as described below that seek to require compliance with wasteload allocations through the use of 'numeric effluent limitations,' are unfunded State mandates subject to reimbursement."[209]

b. Sections XII.B. through XII.E. of the test claim permit, "as they are applied to municipal projects," regarding New "Low Impact Development" (LID) and Hydromodification prevention requirements involving Water Quality Management Planning for new development and significant redevelopment projects.[210] These sections impose WQMP requirements on project proponents that must be enforced by the municipal permittees as applied to municipal development and redevelopment priority projects.[211] The claimants also allege the planning

[205] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 71.

[206] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 71.

[207] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 71.

[208] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 71-72 [Citing California Toxics Rule, 65 Fed. Reg. 31703].

[209] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 75-76.

[210] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 84.

[211] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 84-90.

requirements in Sections XII.B.1., XII.C.1, XII.D.5, and XII.E.1 impose a reimbursable state-mandated program.[212]

c. Section XIII., new Public Education Program requirements involving the conducting of a public awareness survey (Subsection XIII.1 of the Permit), the conducting of sector-specific workshops (Subsection XIII.4 of the Permit), and the development and implementation of a new Public Participation program involving various water quality plans and fact sheets (Subsection XIII.7 of the Permit).[213]

d. Section XI., new requirements for residential areas, including public education/BMPs for residential areas and activities that are potential sources of pollutants; and a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations.[214]

e. Sections IX. and X., new requirements to develop, track, and maintain a Geographical Information System (GIS) electronic mapping for Industrial Facilities subject to inspections and newly specified additional categories of Commercial Facilities as set forth in Sections IX. (Municipal Inspections of Industrial Facilities) and X. (Municipal Inspections of Commercial Facilities) of the test claim permit that are now included in the inspections program.[215]

2. The Claimants Argue that the Entire Permit Exceeds the Federal Requirements of the CWA and Implementing Regulations.

The claimants raise several complex legal arguments supporting their interpretation that the entire test claim permit, as well as the specific programmatic elements that they allege to be reimbursable state-mandated activities, exceed the minimum requirements of the federal CWA, or exceed the Maximum Extent Practicable standard called for under the CWA, where applicable.

[212] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, pages 24-25.

[213] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 90-94.

[214] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 94-97.

[215] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 97-103.

a. The claimants argue that the State and Regional Boards' authority under State water quality law and regulations is much broader than under the Clean Water Act.

The claimants acknowledge the overarching nature of the federal CWA, but argue that "because the state of California has broader authority to regulate discharges than the EPA would under the CWA, the requirements in NPDES permits issued by the State and Regional Boards frequently exceed the requirements of federal law."[216] The claimants argue that the State and Regional Boards' authority under California's Porter-Cologne is broader than that under the CWA, and that therefore: "It is under this authority that the State and Regional Boards act when issuing NPDES permits that exceed the minimum requirements set forth in federal law, namely Title 40, section 122.26 of the Code of Federal Regulations." The claimants allege that the State and Regional Boards have acknowledged as much:

> The courts, the State Board and the Regional Boards have repeatedly acknowledged that many aspects of NPDES permits issued in California exceed the minimum requirements of the CWA. In a decision on the merits of the 2001 NPDES permit for San Diego County, the State Board acknowledged that the since NPDES permits are adopted as waste discharge requirements in California, they can more broadly protect "waters of the State," rather than being limited to "waters of the United States." As the State Board has expressed it, "the inclusion of 'waters of the State' allows the protection of groundwater, which is generally not considered to be 'waters of the United States.'"[217]
>
> The Regional Boards have also acknowledged in official documents that many of the requirements of MS4 permits exceed the requirements of federal law and are based, therefore, on the broader authority of Porter-Cologne. For example, in a December 13, 2000 staff report regarding the San Diego Regional Water Quality Control Board's draft 2001 permit, it was found that 40% of the draft permit requirements "exceed the federal regulations" because they are either more numerous, more specific/detailed, or more stringent than the requirements in the regulations.[218]

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[216] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 58.

[217] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016 and January 3, 2017, pages 59-60 [citing *In Re Building Industry Association of San Diego County and Western States Petroleum Association*, State Board Order WQ 2001-15, Fn 20, Exhibit 9 to the Miscellaneous Authorities included with Section 7 – Documentation].

[218] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016 and January 3, 2017, page 60 [citing p. 1896 (San Diego Regional Board Staff Report, dated December 13, 2000, p. 3, ¶14, included as Exhibit 18 under Section 7 – Documentation to these Test Claims)].

The claimants further argue that *City of Burbank v. State Water Resources Control Bd.* (2005) 35 Cal.4th 613 supports an interpretation of the State's authority over water pollution controls as being much broader than federal minimum requirements:

> Lastly, in *Burbank*, the California Supreme Court acknowledged that aspects of NPDES permits can exceed federal requirements, and held that to the extent such provisions are not required by federal law, the State and Regional Boards are required to consider state law restrictions on agency action. Implicit in the Court's decision is the requirement that orders issued by the State and Regional Boards are subject to State Constitutional restrictions, including those on funding set forth in Article XIII B section 6 of the California Constitution.[219]

Further, the City of Irvine, in a late supplemental comment, cites a 2015 Order from the State Board, in which the Regional Boards' discretion under the CWA is acknowledged as follows:

> In the context of NPDES permits for MS4s, however, the Clean Water Act does not explicitly reference the requirement to meet water quality standards. MS4 discharges must meet a technology-based standard of prohibiting non-storm water discharges and reducing pollutants in the discharge to the Maximum Extent Practicable (MEP) in all cases, **but requiring strict compliance with water quality standards (e.g., by imposing numeric effluent limitations) is at the discretion of the permitting agency.**
>
> [¶…¶]
>
> Accordingly, **since the State Water Board has discretion under federal law** to determine whether to require strict compliance with the water quality standards of the water quality control plans for MS4 discharges, the State Water Board **may also utilize the flexibility under the Porter-Cologne Act to decline to require strict compliance with water quality standards for MS4 discharges.**[220]

Thus, the claimants urge that the Regional Board's authority to dictate the terms of the test claim permit is much broader under state law than under the federal law.

b. <u>The claimants argue that the authority and discretion to impose specific permit terms does not mean that all permit terms are in furtherance of federal requirements.</u>

The claimants contend that *Long Beach Unified School Dist. v. State* (1990) 225 Cal.App.3d 155 establishes the concept that "whenever the State exercises its discretion to impose a new program or higher level of service, that program or service will represent a state mandate even if it is

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[219] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 60 [citing *City of Burbank v. State Water Resources Control Bd.* (2005) 35 Cal.4th 613, 618].

[220] Exhibit K, Claimants' Late Supplemental Response to the Request for Additional Briefing, filed October 28, 2016, page 3 [emphasis in original].

imposed as part of a federally mandated regulatory scheme."[221] The claimants describe *Long Beach Unified* as follows: "In that case, the court found that an executive order that required school districts to take specific steps to measure and address racial segregation in local public schools constituted a reimbursable mandate to the extent the order's requirements exceeded federal constitutional and case law requirements by mandating school districts to undertake defined remedial actions and measures that were merely advisory under the prior governing law."[222] The claimants cite the Commission's prior decision in *Discharge of Stormwater Runoff*, 07-TC-09, in which the Commission found: "As in *Long Beach Unified*…the permit requires specific actions, i.e., required acts that go beyond the requirements of federal law…" and therefore the permit exceeds the federal mandate to that extent.[223]

The claimants further argue that merely because a permit term satisfies the MEP standard required by the CWA does not mean that term is mandated by the CWA: "The Board admits that it has virtually unlimited 'discretion' to determine what is required by MEP, asserting that because '[t]he MEP approach is an ever evolving, flexible, and advancing concept,' the Board 'is entitled to considerable deference in its determination of what practices are within the federal minimum requirements.'"[224] However, the claimants challenge the State Board's theory:

> The Board's contention that all permit terms are federal mandates because federal law "mandates" that the Board exercise its "discretion" to impose permit terms is nonsensical. By definition, having "discretion" to impose a permit term means the permit term is not "mandated" by federal law.
>
> [¶…¶]
>
> The plain language of the Act shows precisely what it requires, i.e., the Board "shall require controls to reduce the discharge of pollutants *to the maximum extent practicable* … and such other provisions *as the Administrator or the State determines appropriate* for the control of such pollutants." As such, the only mandate required of the Board when developing NPDES permits is compliance with the general MEP standard, and, as recognized by controlling law and the Board itself, the Board has "wide discretion" in determining what permit terms to include to meet the MEP standard.[225]

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[221] Exhibit E, Claimants' Rebuttal Comments, Volume 1, filed June 17, 2011, page 14.

[222] Exhibit E, Claimants' Rebuttal Comments, Volume 1, filed June 17, 2011, page 14 [citing *Long Beach Unified School Dist. v. State* (1990) 225 Cal.App.3d 155, 173].

[223] Exhibit E, Claimants' Rebuttal Comments, Volume 1, filed June 17, 2011, page 15.

[224] Exhibit E, Claimants' Rebuttal Comments, Volume 1, filed June 17, 2011, pages 15-16 [citing Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, pp. 8-9].

[225] Exhibit E, Claimants' Rebuttal Comments, Volume 1, filed June 17, 2011, pages 16-17 [citing *Elderverse v. Anderson* (1962) 205 Cal.App.2d 326, 331; *Morgan v. County of Yuba* (1964) 230 Cal.App.2d 938, 942-43 ("A discretionary act is one which requires 'personal deliberation, decision and judgment' while an act is said to be ministerial when it amounts but

The claimants also cite to a 1993 memorandum issued by the State Board's Chief Counsel, which expressed a highly flexible and discretionary understanding of MEP:

> On its face, it is possible to discern some outline of the intent of Congress in establishing the MEP standard. First the requirement is to *reduce* the discharge of pollutants, rather than totally prohibit such discharge. Presumably, the reason for this standard (and the difference from the more stringent standard applied to industrial dischargers in Section 402(p)(3)(A)), is the knowledge that it is not possible for municipal dischargers to prevent the discharge of all pollutants in storm water.[226]

The claimants thus conclude that "[g]iven the 'wide discretion' and 'flexibility' the Board has in developing permit terms under the MEP standard, as well as the fact that the Board may impose controls that go beyond the MEP standard as it 'determines appropriate,' the Board plainly had a 'true choice' when developing the 2009 Permit terms that are the subject of this Test Claim."[227]

The claimants further argue that the courts have repeatedly recognized the broad discretion of the permitting authority not only to determine what permit conditions are consistent with MEP, but also to impose requirements that exceed MEP. In *Defenders of Wildlife v. Browner* (1999) 191 F.3d 1159, the claimants assert that "the Ninth Circuit held that the US EPA (or a state implementing agency) has the authority to impose numeric effluent limits in MS4 Permits, but that Congress did not mandate effluent limits if the US EPA (or the state implementing agency) determined they were not necessary."[228] The claimants also cite *City of Burbank*, in which the California Supreme Court held that when a regional board is considering more stringent pollution controls than required by federal law (thus confirming that such authority is beyond question), it may consider economic or feasibility factors: "The federal Clean Water Act reserves to the states significant aspects of water quality policy (33 U.S.C. § 1251(b)), and it specifically grants the states authority to "enforce any effluent limitation" that is not "less stringent" than the federal standard (33 U.S.C. § 1370, italics added). It does not prescribe or restrict the factors that a state may consider when exercising this reserved authority…"[229]

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only to an obedience to orders, or the performance of a duty in which the officer is left no choice of his own."); 33 U.S.C. §1342(p)(3)(B)(iii)].

[226] Exhibit E, Claimants' Rebuttal Comments, Volume 1, filed June 17, 2011, pages 17-18 (emphasis in original) [citing Exhibit F, Claimants' Rebuttal Comments, Attachments, Volume 4 of 4 filed June 17, 2011, p. 313-314 "MEP Memo"].

[227] Exhibit E, Claimants' Rebuttal Comments, Volume 1, filed June 17, 2011, page 18 [citing 33 U.S.C. § 1342(p)(3)(B)(iii); *Hayes v. Commission on State Mandates* (1992) 11 Cal.App.4th 1564].

[228] Exhibit E, Claimants' Rebuttal Comments, Volume 1, filed June 17, 2011, page 20 [citing *Defenders of Wildlife v. Browner* (1999) 191 F.3d 1159, 1166-1167].

[229] Exhibit E, Claimants' Rebuttal Comments, Volume 1, filed June 17, 2011, pages 20-21 [quoting *City of Burbank v. State Water Resources Control Bd*. (2005) 35 Cal.4th 613, 628].

The claimants also argue that more recent EPA guidance documents do not constitute a federal mandate; nor alter the discretionary nature of the disputed permit terms. The claimants acknowledge that without the State Board and the nine Regional Boards administering the NPDES program, U.S. EPA would act as the permitting authority. However, there is no showing that U.S. EPA would impose the same disputed permit terms. Moreover, the plain language of the guidance that the State Board cites states that it is not binding on EPA or the states.[230] The claimants further note that "[m]oreover, the US EPA routinely encourages state implementing agencies to include programs in municipal NPDES permits that the US EPA has questionable authority to impose."[231]

And, the claimants argue that "[t]he State's claim that federal law requires the Board to impose permit terms that go beyond the MEP standard is baseless."[232] The claimants assert that "the Board cannot plausibly claim that it has 'no true choice' regarding whether to impose permit terms that are admittedly 'discretionary.'"[233] The claimants argue that "the Board has cited absolutely no authority of any kind that supports the proposition that the Act requires the Board to impose any requirements that go beyond the MEP standard."[234]

Finally, in response to a Commission request for additional briefing, the claimants point out that *Department of Finance v. Commission* (2016) 1 Cal.5th 749 clearly rejects the Regional Board's assertion that the Commission must defer on issues of what terms within an NPDES permit are federally mandated, and, the claimants assert, presents a clear test for the Commission to apply to determine the scope of the federal mandate with respect to storm water test claims.[235]

The test articulated in *Dept. of Finance*, according to the claimants, is best stated in the following passage:

> If federal law compels the state to impose, or itself imposes, a requirement, that requirement is a federal mandate. On the other hand, if federal law gives the state

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[230] Exhibit E, Claimants' Rebuttal Comments, Volume 1, filed June 17, 2011, pages 21-22 [citing Exhibit F, Claimants' Rebuttal Comments, Volume 4, filed June 17, 2011, p. 11 (Claimants' Exhibit 19, United States Environmental Protection Agency Office of Water, Office of Wastewater Management, Water Permits Division, MS4 Permit Improvement Guide, April, 2010, p. 3)].

[231] Exhibit E, Claimants' Rebuttal Comments, Volume 1, filed June 17, 2011, page 23 [citing Exhibit F, Claimants' Rebuttal Comments, Volume 4, filed June 17, 2011, p. 58 (Claimants' Exhibit 19, United States Environmental Protection Agency Office of Water, Office of Wastewater Management, Water Permits Division, MS4 Permit Improvement Guide, April, 2010, p. 50)].

[232] Exhibit E, Claimants' Rebuttal Comments, Volume 1, filed June 17, 2011, page 24.

[233] Exhibit E, Claimants' Rebuttal Comments, Volume 1, filed June 17, 2011, page 24.

[234] Exhibit E, Claimants' Rebuttal Comments, Volume 1, filed June 17, 2011, page 25.

[235] Exhibit J, Claimants' Response to Request for Additional Briefing, filed October 21, 2016, pages 5-6 [citing and quoting *Department of Finance v. Commission* (2016) 1 Cal.5th 749, 768-769].

> discretion whether to impose a particular implementing requirement, and the state exercises its discretion to impose the requirement by virtue of a "true choice," that requirement is not federally mandated.[236]

Accordingly, the claimants assert that applying the case law to each alleged activity leads to the conclusion that none of the disputed permit terms are federally mandated, including some similar terms in prior permits that have been determined to be state mandates by either the Commission or the Court.[237] The specific arguments for each alleged activity are addressed in the analysis.

3. The Claimants Argue that They Do Not Have Fee Authority Sufficient to Cover the Costs of the Mandated Program Within the Meaning of Government Code Section 17556(d).

The claimants state generally that they "are not aware of any State, federal or non-local agency funds that are or will be available to fund these new activities."[238] They further assert that "[t]he Joint Test Claimants do not have fee authority to offset these costs."[239] The claimants maintain that the only source of funding to cover the costs of the mandated activities "are General Fund monies of the Joint Test Claimants."[240] However, claimants do acknowledge:

> [F]or the City of Brea, some funding was also available through an Urban Runoff/NPDES Fund and for the City of Buena Park, some funding was available through a Water Enterprise Fund. For the County, some additional funding was available through landfill gate fees and special district funding, among other sources. See Section 6 Declarations, Paragraph 8.[241]

The claimants further argue that "[m]ost of the programs developed by local governments to comply with their obligations under the 2009 Permit are not directed at individual dischargers but rather are designed to deal with multiple sources of pollutants being transported by storm water from multiple properties being put to a wide range of uses."[242] The claimants assert that

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[236] Exhibit J, Claimants' Response to the Request for Additional Briefing, filed October 21, 2016, page 2 [citing *Department of Finance v. Commission* (2016) 1 Cal.5th 749, 765].

[237] Exhibit J, Claimants' Response to the Request for Additional Briefing, filed October 21, 2016, page 7.

[238] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 104

[239] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 104

[240] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 104.

[241] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 104.

[242] Exhibit E, Claimants' Rebuttal Comments, Volume 1, filed June 17, 2011, page 59.

"local governments typically have a very limited ability to regulate existing lawful uses of property."[243]

Moreover, "limitations in Articles XIII A, XIII B, XIII C, and XIII D of the California Constitution severely constrain the local government's ability to impose taxes and fees in a situation where the payor of the fee is using its property for a use that are is directly regulated by the local government or where the individual property owner, occupant or user of that property is not directly availing itself of governmental services."[244] Accordingly, the claimants allege that "Permittees do not have the ability to fund any of these programs by a fee that could be imposed without a vote of the electorate."[245]

The claimants further allege that pursuant to the amendments made to article XIII C by Proposition 26 (2010), "virtually any revenue device enacted by a local government" is a "tax requiring voter approval, unless it [falls] within certain enumerated exceptions."[246] The claimants assert that after Proposition 26, a fee "must be such that it recovers no more than the amount necessary to recover costs of the governmental program being funded by the fee,"[247] and "the person or business being charged the fee, the payor, may only be charged a fee based on the portion of the total government costs attributable to burdens being placed on the government by that payor or an amount based on the direct benefits the payor receives from the program or facility being funded by the fee."[248] The claimants assert that a fee or charge that does not fall within the enumerated exceptions of article XIII C, section 1 is "automatically deemed a tax, which must be approved by the voters."[249]

Finally, the claimants argue that any jurisdiction-wide fees levied on property owners to fund a permittee's stormwater program (or any activities required under the test claim permit) must comply with article XIII D:

> Although property related fees are expressly exempted from the requirements of Article XIII C by § 1(e)(7), Article XIII D also requires voter approval of most property related fees. The courts have expressly held that stormwater fees charged to owners and occupants of property by a local government require voter approval before they may be imposed.[250]

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[243] Exhibit E, Claimants' Rebuttal Comments, Volume 1, filed June 17, 2011, page 59.

[244] Exhibit E, Claimants' Rebuttal Comments, Volume 1, filed June 17, 2011, page 59.

[245] Exhibit E, Claimants' Rebuttal Comments, Volume 1, filed June 17, 2011, page 60.

[246] Exhibit E, Claimants' Rebuttal Comments, Volume 1, filed June 17, 2011, page 60.

[247] Exhibit E, Claimants' Rebuttal Comments, Volume 1, filed June 17, 2011, page 61.

[248] Exhibit E, Claimants' Rebuttal Comments, Volume 1, filed June 17, 2011, page 61.

[249] Exhibit E, Claimants' Rebuttal Comments, Volume 1, filed June 17, 2011, page 61.

[250] Exhibit E, Claimants' Rebuttal Comments, Volume 1, filed June 17, 2011, page 65.

The claimants cite to *Howard Jarvis Taxpayers Association v. City of Salinas* (2002) 98 Cal.App.4th 1351, which claimants assert "dealt with a stormwater fee that the City of Salinas attempted to enact without voter approval," and the court held the fee invalid.[251]

Accordingly, the claimants maintain that articles XIII C and XIII D "severely limit the Permittees' power to impose fees," and "[a]ny fees developed by the Permittees to fund the portions of the MS4 Permit that are the subject of this unfunded mandate claim could only be imposed by some form of special tax or property related fee that would require either a 2/3 vote of the electorate affected by the tax or a majority vote of the property owners subject to the property related fee."[252]

4. The Claimants' Comments on the Draft Proposed Decision

The claimants filed comments on the Draft Proposed Decision, reiterating the points made above.[253] These comments are specifically addressed in the analysis.

B. The Regional Board's Position

The Regional Board urges the Commission to deny the Test Claim. The Regional Board states that it "issued the Permit [i.e., the test claim order] pursuant to legal requirements contained in the federal Clean Water Act ("CWA"), its implementing regulations, and guidance from the United States Environmental Protection Agency ("U.S. EPA")."[254] The Board further states that "[p]ursuant to federal law, U.S. EPA authorized the Santa Ana Water Board to issue the Permit in lieu of issuance by U.S. EPA itself."[255] Further, the Regional Board states: "As required by federal statute, regulations, and guidance, the Permit requires numerous actions the Co-Permittees must take to reduce the flow of pollutants into waters in the Santa Ana Water Board's jurisdictional watershed."[256] The Regional Board acknowledges that the test claim permit results in costs incurred: "This Test Claim seeks reimbursement by the State of California for expenses the Claimants either have incurred or will incur in implementing numerous requirements of the Permit."[257] However, the Regional Board maintains that the claimants, in addition to establishing the new activities of the test claim permit "must also prove that the costs are mandated on them by the state, rather than by federal law, and must prove that any additional

[251] Exhibit E, Claimants' Rebuttal Comments, Volume 1, filed June 17, 2011, pages 66-67 [citing *Howard Jarvis Taxpayers Association v. City of Salinas* (2002) 98 Cal.App.4th 1351, 1354-1355].

[252] Exhibit E, Claimants' Rebuttal Comments, Volume 1, filed June 17, 2011, page 68.

[253] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022.

[254] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 1.

[255] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 1.

[256] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 2.

[257] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 2.

costs beyond the federal mandate are substantial and not *de minimis*."[258] And, "[f]inally, they must establish that they are required to use tax monies to pay for permit implementation."[259]

1. The Regional Board Asserts that the Requirements of the Test Claim Permit Do Not Constitute Mandated New Programs or Higher Levels of Service to the Public.

The Regional Board maintains that "Claimants have not established that the challenged provisions impose new programs or higher levels of service."[260] The Regional Board argues that "[m]any of the provisions are nearly identical to those in the 2002 permit, and other activities, even if not previously required, are already being carried out by some of the Co-Permittees."[261]

Additionally, the Regional Board asserts that "neither federal nor state law requires that parties discharge to waters of the United States."[262] Instead, the Regional Board argues that "by electing to discharge pollutants to the waters of the United States, Claimants have elected to create the condition triggering federal and state requirements to obtain an MS4 permit."[263]

The Regional Board further asserts that the Permit "does not involve requirements imposed uniquely upon local government."[264] The Board argues that "[l]aws of general application are not entitled to subvention…where local agencies are required to perform the same functions as private industry, no subvention is required."[265] The Board reasons that because industrial and construction entities are required to obtain and comply with NPDES permits, which are in some cases more stringent than for MS4s, the test claim permit cannot be considered uniquely imposed on local government.[266]

2. The Regional Board Asserts that Federal Law, Not State Law, Mandates the Issuance of the Permit as a Whole, and the Specific Requirements Are Consistent with Federal Law and EPA Guidance.

The Regional Board argues that federal law, rather than state law, "mandates the issuance of the Permit as a whole, including the challenged provisions."[267] Further, the Regional Board asserts that "[t]he CWA requires that the Permit be issued to the local governments: it is not a question

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[258] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 2 [emphasis in original].

[259] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 2.

[260] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 11.

[261] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 11.

[262] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 12.

[263] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 12.

[264] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 17.

[265] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 17.

[266] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 17.

[267] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 2.

of 'shifting' the costs from the state to the local agencies."[268] The Regional Board asserts that the "specific requirements challenged are consistent with the requirements of federal law, its implementing regulations, and federal agency guidance."[269] And, the Regional Board argues that "[e]ven if the Permit was interpreted as going beyond federal law, any additional state requirements for each requirement are *de minimis*."[270]

The Regional Board acknowledges that the CWA "does not provide a specific set of permit terms that the permitting agency must include in each MS4 permit." However, the program "mandates that the permitting agency exercise discretion and choose specific controls, generally BMPs, to meet a legal standard," which is found in section 402(p)(3)(B)(iii) of the CWA:

> [S]hall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.

The Regional Board asserts that the courts have identified "two independent requirements" in this provision: first, that the permit must include controls to reduce pollutants to the maximum extent practicable (MEP); and second, that the permit must include "such other provisions as the permit writer deems appropriate for controlling pollutants."[271]

With respect to what specifically is required to satisfy MEP, the Regional Board states that "it was first established in the CWA in 1987," and "is akin to a technology-based standard."[272] The Regional Board holds that "[t]he fundamental requirement that municipalities reduce pollutants in MS4s to the MEP remains a cornerstone of the mandate imposed upon municipalities by the federal CWA and implementing NPDES regulations."[273] More specifically, the Regional Board asserts that "MEP is generally a result of emphasizing pollution prevention and source control BMPs as the first lines of defense in combination with appropriate structural and treatment methods serving as additional lines of defense…[and] is an ever evolving, flexible, and advancing concept, which considers technical and economic feasibility."[274] Accordingly, the Regional Board maintains that "[a]s technical knowledge about controlling urban runoff continues to advance and change, so does that which constitutes compliance with the MEP

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[268] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 2.

[269] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 2.

[270] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 2 [emphasis in original].

[271] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 7 [citing *Defenders of Wildlife v. Browner* (9th Cir 1999) 191 F.3d 1159, 1166].

[272] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 8.

[273] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 8.

[274] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 8.

standard."[275] The Regional Board notes that while "MEP as a legal requirement" has not changed, "what has changed in successive permits is the level of specificity included in the permit to define what constitutes MEP."[276] The Regional Board argues that in *Building Industry Ass'n of San Diego County v. State Water Board*, the court of appeal upheld the San Diego Regional Board-issued MS4 permit, finding that MEP "is a highly flexible concept that depends on balancing numerous factors, including the particular control's technical feasibility, cost, public acceptance, regulatory compliance, and effectiveness."[277] Thus, the Regional Board argues, "the Court of Appeal's *Building Industry* decision demonstrates that the Santa Ana Water Board is entitled to considerable deference in its determination of what practices are within the federal minimum requirements."[278]

With respect to "such other provisions" as the permit writer deems appropriate for the control of such pollutants, the Regional Board argues that "this provision is mandatory and binding on the Santa Ana Water Board as the authorized NPDES permit writer."[279] Therefore, "contrary to what Claimants appear to argue in their Test Claim, when relying on this provision, the state does not exceed federal law in using its discretion to impose permit provisions that are necessary to control pollutants."[280]

The Regional Board also responds to the argument that the NPDES permitting program represents a shifting of responsibilities and costs, and could be found to constitute a state mandate under *Long Beach Unified School Dist. v. State*:

> In *Long Beach*, the federal requirements at issue stemmed from general constitutional obligations to alleviate racial segregation articulated in several federal court decisions. These court decisions did not impose any specific requirements on the school districts in California. *Long Beach* included no comprehensive federal program that required specific steps and specific standards to be met by all schools and school districts. There was, in fact, no federal mandate on the school districts at all. Thus, with its Executive Order, the State of California created a state mandate where no federal mandate previously existed. Accordingly, any specific provisions would necessarily be a state mandate because the state took a vague federal constitutional obligation, along with suggestions from federal court decisions, and translated it into very specific requirements.
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> This test claim, on the other hand, involves two separate and very clear federal mandates – one for the permittee and one for the permitting agency. The first is the unambiguous federal mandate directly on permittees (Claimants) to obtain a

[275] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 8.

[276] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 8.

[277] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 9.

[278] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 9.

[279] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 9.

[280] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 9.

NPDES permit that imposes requirements that control pollutants to the MEP and any other appropriate water quality control measures. As opposed to general constitutional obligations at issue in *Long Beach*, the CWA, as implemented by EPA's regulations, creates a comprehensive regulatory strategy including very specific permit requirements that apply directly to local agencies' storm sewer discharges… Second, the CWA contains a separate mandate on the permitting agency, whether federal or state, to issue permits pursuant to the same standards set forth in CWA section 402(p).

The fact that the CWA contains two separate mandates marks the critical difference between *Long Beach* and the instant claim. Even if the State of California did not administer the NPDES program, Claimants would have been required to obtain an MS4 permit for their discharges. Thus, when the Santa Ana Water Board issued the Permit, it did so pursuant to the federal mandate for permit writers, not for permittees. Importantly, Claimants do not challenge the federal mandate to obtain the Permit. Rather, they challenge the Santa Ana Water Board's execution of the federal mandate as a permit writer.

Where the Santa Ana Water Board contends the Commission erred in its analytical approach is in applying *Long Beach* holding to the wrong federal mandate. In *Long Beach*, the federal mandate at issue was from the United States Constitution directly to the school districts. Thus, when the State of Calfornia [sic] issued the Executive Order in *Long Beach*, it did so pursuant to absolutely no federal mandate on the state itself. Put another way, the federal court decisions required no additional state involvement in order to meet the constitutional obligations regarding racial segregation. Accordingly, an Executive Order including more specific requirements than those suggested by the federal courts was de facto an unfunded state mandate.

On the contrary, when the San Diego Water Board (or Santa Ana Water Board in this case) established specific provisions in the MS4 permit, it did so pursuant to the CWA's specific mandate for the permitting agency. As explained above, this federal mandate specifically requires the permitting agency to establish permit provisions to control pollutants to the MEP and such other provisions as appropriate to control such pollutants. Thus, as opposed to *Long Beach*, where the State of California translated a general constitutional obligation into specific requirements absent any federal mandate to do so, the Santa Ana Water Board established permit provisions pursuant to CWA's direct mandate on permitting agencies. Accordingly, unlike *Long Beach*, the mere act of selecting specific permit provisions itself cannot de facto create an unfunded mandate. An unfunded mandate can only exist if, in establishing the permit provisions, the Santa Ana Water Board includes provisions that go beyond federal requirements. Therefore, in determining whether an unfunded mandate exists, the Commission

must analyze whether the challenged provision goes beyond the legal standards set forth in 402(p)(3)(B)(iii).[281]

The Regional Board further argues that *Dept. of Finance* "has limited applicability because, unlike the 2001 Los Angeles Permit, the 2009 Permit includes a finding that the requirements implement only federal law."[282] The Board asserts that "Findings 1-5 of the Permit and Section II of the Fact Sheet set forth the Board's regulatory basis for issuing the Permit."[283] The Board further asserts that "[t]he 2009 Permit contains no express or implied statement that any of the provisions are authorized by State law."[284]

The Board further argues that the Supreme Court's decision is limited to interpreting MEP, "and did not address other federal laws or regulations which mandate Permit provisions challenged in the Test Claim."[285] The Board asserts that because the analysis in *Dept. of Finance* "turned on whether, and to what extent, the MEP standard and specific implementing regulations compelled the Los Angeles Regional Board to impose the challenged permit conditions…the Supreme Court decision has limited application when the federal standard compelling a challenged permit provision is wholly separate from the MEP standard…"[286] The Board asserts that "a significant number of the challenged provisions of the 2009 Permit relate to the implementation of total maximum daily load ('TMDL') requirements."[287] The Board argues that federal law "specifically compelled the Santa Ana Water Board to include the TMDL-related provisions in the 2009 Permit."[288] The Board maintains that the regulations requiring NPDES permits to contain effluent limitations "consistent with the assumptions and requirements of any available wasteload allocation…provides an independent basis, separate from the federal MEP standard,

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[281] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, pages 14-16 (citing *Long Beach Unified School Dist. v. State of California* (1990) 22 Cal.App.3d 155).

[282] Exhibit I, Regional Board's Response to the Request for Additional Briefing, filed October 21, 2016, page 2.

[283] Exhibit I, Regional Board's Response to the Request for Additional Briefing, filed October 21, 2016, page 2.

[284] Exhibit I, Regional Board's Response to the Request for Additional Briefing, filed October 21, 2016, page 3.

[285] Exhibit I, Regional Board's Response to the Request for Additional Briefing, filed October 21, 2016, page 4.

[286] Exhibit I, Regional Board's Response to the Request for Additional Briefing, filed October 21, 2016, page 4.

[287] Exhibit I, Regional Board's Response to the Request for Additional Briefing, filed October 21, 2016, page 4.

[288] Exhibit I, Regional Board's Response to the Request for Additional Briefing, filed October 21, 2016, page 5 [citing 40 CFR § 122(d)(1)(vii)(B)].

for including the challenged TMDL-related provisions."[289] Further, the Board argues that its discretion with respect to the TMDL-related provisions is significantly narrower:

> Developing provisions to meet the MEP standard necessarily requires consideration and balancing of numerous factors, including the particular control's technical feasibility, cost, public acceptance, regulatory compliance, and effectiveness in light of evolving technology and scientific understandings of pollutant control. In contrast, part 122(d)(1)(vii)(B) specifically directs the Board to include effluent limits which are consistent with the assumptions of any applicable WLAs. In other words, the Board had no "true choice" but to include the TMDL-related provisions in the 2009 Permit.[290]

The Board asserts that "[i]n exercising this limited discretion, the Board simply translated the WLAs directly into effluent limits – so the effluent limitations were exactly the same as the WLAs."[291]

Similarly, the Board asserts that the LID and Hydromodification prevention requirements; Public Education Program requirements; and Residential Program requirements are all compelled by other federal regulations:

> Sections XII.B through XII.E include low impact development and hydromodifcation requirements which implement 40 Code of Federal Regulations part 122.26(d)(2)iv)(A)(2). Section XIII includes requirements for public education and outreach which implement 40 Code of Federal Regulations part 122.26(d)(2)(iv)(B)(6). Section XI includes requirements for reducing pollutants from residential facilities which implement 40 Code of Federal Regulations parts 122.26(d)(2)(iv)(A)(6) and 122.26(d)(2)(iv)(A). Because federal law compelled the Board to include these requirements, and the Board determined that these provisions were necessary to meet these federal requirements in conformity with the federal MEP standard, the Board is entitled to appropriate level of deference in making this determination.[292]

Accordingly, the Board asserts that none of the challenged permit requirements are state-mandated.

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[289] Exhibit I, Regional Board's Response to the Request for Additional Briefing, filed October 21, 2016, page 5 [quoting 40 CFR § 122(d)(1)(vii)(B)].

[290] Exhibit I, Regional Board's Response to the Request for Additional Briefing, filed October 21, 2016, page 5.

[291] Exhibit I, Regional Board's Response to the Request for Additional Briefing, filed October 21, 2016, page 5.

[292] Exhibit I, Regional Board's Response to the Request for Additional Briefing, filed October 21, 2016, pages 5-6.

3. The Regional Board Asserts That None of the Requirements of the Test Claim Permit Are Reimbursable Because Claimants Have Authority to Impose Charges or Fees to Pay for Any Alleged Costs.

Additionally, the Board argues that the local agencies possess fee authority within the meaning of section 17556, and therefore reimbursement is not required. The Board asserts that all claimants "have the ability to charge fees to businesses to cover inspection costs…" and that "there may be limitations concerning the percent of voters or property owners who must approve assessments under California law, but cities and counties can and do adopt fees from their residents and businesses that fund their storm water programs."[293] The Board maintains that the claimants "have failed to show that they must use tax monies to pay for these requirements."[294] Further, the Board argues that any requirements that the Commission might find reimbursable would be de minimis, and would not require payment from tax monies.[295] The Board argues that while the claimants allege "more than $200 million over the Permit's term, the Permit largely continues and refines the requirements of the 2002 permit," and therefore "the vast majority of the costs to implement the Permit are not new."[296] The Board further argues that "previously reported program costs are not all attributable to compliance with MS4 permits," and that only some portion of the provisions of the Permit will be found to exceed federal law.[297] Accordingly, those costs that are solely attributable to the test claim permit will be de minimis.[298]

4. The Regional Board Asserts That Claimants Have Not Exhausted Their Administrative Remedies, and That a Test Claim Before the Commission Is an Improper Collateral Attack on the Test Claim Permit.

Finally, the Regional Board argues that the claimants have not exhausted their administrative remedies with the State Board, and filing a Test Claim with the Commission, especially to the extent that the Test Claim implicates the issue of whether permit provisions exceed MEP, constitutes an improper collateral attack on the Permit.[299]

The Board asserts that the Water Code provides an administrative remedy under section 13320(a). "Therefore, the question of whether permit provisions exceed the MEP standard is more properly brought before the State Water Board."[300] The Board argues that "[a]llowing the Commission to adjudicate a matter properly within the expertise and jurisdiction of the State

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[293] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 18.

[294] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 18.

[295] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 18.

[296] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 18.

[297] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 18.

[298] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 18.

[299] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, pages 18-19.

[300] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 19.

Water Board offends the basic policies of the doctrine of exhaustion."[301] The Board concludes that "the Commission must abstain from hearing the Test Claim until the State Water Board has determined whether the provisions of the permit exceed the MEP standard."[302]

5. The Water Boards' Comments on the Draft Proposed Decision

The Water Boards filed joint comments on the Draft Proposed Decision, which are specifically addressed in the analysis.[303] These comments contend that the requirement in Section XVIII.B.8 of the test claim permit to develop a Cooperative Watershed Program to comply with the selenium TMDL is not mandated by the state.[304] The Water Boards also contend that the claimants have fee authority sufficient as matter of law pursuant to Government Code section 17556(d) to comply with all new requirements. They further contend that if the Commission finds that voter approval is required for property-related fees, it does not divest claimants of their authority to impose fees and that if the Commission finds that voter approval procedures divest claimants of fee authority for costs prior to January 1, 2018, the Commission should find that claimants cannot establish they are forced to use local proceeds from taxes if they have not sought voter approval for proposed fees.[305] Finally, the Water Boards argue that no reimbursement is required after January 1, 2018 because of SB 231, which exempted stormwater fees from the voter approval requirement of article XIII D of the California Constitution.[306]

C. Finance's Position

Finance urges the Commission to deny the Test Claim. Finance argues that the test claim permit is issued as a result of the "state's role as a permitting authority acting on behalf of the federal government…" and that "the state requirements, in the absence of a state statute, would still be imposed on local agencies by federal law."[307] In addition, Finance argues that the new or additional activities in the test claim permit, as compared with the prior Third Term Permit, are a result of "an iterative process whereby each successive permit becomes more refined and expanded as needed," and that this expansion is necessary to comply with the CWA.[308] Finance further argues that the specific provisions of the test claim permit were "necessary and consistent

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[301] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 19.

[302] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 19.

[303] Exhibit N, Water Boards' Comments on the Draft Proposed Decision, filed November 4, 2022.

[304] Exhibit N, Water Boards' Comments on the Draft Proposed Decision, filed November 4, 2022, pages 1-4.

[305] Exhibit N, Water Boards' Comments on the Draft Proposed Decision, filed November 4, 2022, page 4-7.

[306] Exhibit N, Water Boards' Comments on the Draft Proposed Decision, filed November 4, 2022, pages 4-9.

[307] Exhibit D, Finance's Comments on Test Claim, filed March 10, 2011, page 1.

[308] Exhibit D, Finance's Comments on Test Claim, March 10, 2011, page 2.

with the Board's federally-delegated authority…" and that "implementing permit activities is not a governmental function unique to local agency dischargers."[309]

With respect to the recent Supreme Court decision in *Department of Finance v. Commission* (2016) 1 Cal.5th 749, Finance "defers to the State Water Resources Control Board and the Santa Ana Regional Water Quality Control Board on the impact of the Supreme Court decision on the federal law component of the state mandate determination."[310]

With respect to the fee authority question, Finance states that it "believe[s] claimants do have fee authority undiminished by Propositions 218 or 26."[311] Finance notes that Proposition 26 "specifically excludes assessments and property-related fees imposed in accordance with Proposition 218 from the definition of taxes." Finance further argues that "claimants have authority to impose property-related fees under their police power for alleged mandated permit activities whether or not it is politically feasible to impose such fees via voter approval as may be required by Proposition 218."[312] Finance concludes that "[l]ocal governments can choose not to submit a fee to the voters and voters can indeed reject a proposed fee, but not with the effect of turning permit costs into state reimbursable mandates."[313]

Additionally, "Finance further asserts that claimants continue to have regulatory fee authority that does not require voter approval under Propositions 218 and 26…sufficient to pay for alleged mandated activities of the hydromodification plan and low-impact development."[314] Finance asserts that fees imposed as a condition of property development (or redevelopment) are not subject to Propositions 218 or 26, and are supported both by local governments' reserved police power authority, and the Mitigation Fee Act (Gov. Code § 66000 et seq.).[315]

Finance filed comments on the Draft Proposed Decision, focusing on the fee authority issues and arguing that "because SB 231 was a clear overruling of the wrongly-decided *City of Salinas* case, the Commission should also find that from the beginning of the potential period of

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[309] Exhibit D, Finance's Comments on Test Claim, March 10, 2011, page 2.

[310] Exhibit H, Finance's Response to the Request for Additional Briefing, filed October 21, 2016, page 1.

[311] Exhibit H, Finance's Response to the Request for Additional Briefing, filed October 21, 2016, page 1.

[312] Exhibit H, Finance's Response to the Request for Additional Briefing, filed October 21, 2016, page 1.

[313] Exhibit H, Finance's Response to the Request for Additional Briefing, filed October 21, 2016, page 1.

[314] Exhibit H, Finance's Response to the Request for Additional Briefing, filed October 21, 2016, page 2.

[315] Exhibit H, Finance's Response to the Request for Additional Briefing, filed October 21, 2016, page 2.

reimbursement the voter approval requirement did not apply to claimants and therefore did not impede their fee authority."[316]

D. Position of Interested Persons, Cities of Dublin and Union City, and the Alameda Countywide Clean Water Program.

On November 4, 2022, the Cities of Dublin and Union City, and the Alameda Countywide Clean Water Program, jointly filed comments on the Draft Proposed Decision.[317] The Cities are claimants in other stormwater test claims pending with the Commission (10-TC-02/03/05 and 16-TC-03), but are not permittees under the test claim permit. The Alameda Countywide Clean Program is a consortium of stormwater agencies made up of Alameda County, the cities of Alameda, Albany, Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Newark, Oakland, Piedmont, Pleasanton, San Leandro, Union City, the Alameda County Flood Control and Water Conservation District, and the Zone 7 Water Agency.[318] These interested persons comment on the TMDL provisions of this Decision as follows.

They urge the Commission to apply *Department of Finance v. Commission on State Mandates* (2016) and *Department of Finance v. Commission on State Mandates* (2017) to the TMDL provisions of the test claim permit and find that the activities are mandated by the state, rather than be considered part and parcel to a federal mandate. According to the interested persons, those cases held that when the activities are expressly or explicitly required by federal law, there is no federal mandate. Furthermore, these decisions hold that deference to the Regional Board is only appropriate where the agency found that the requirements were the *only means* by which the federal standard could be implemented.[319] The comments explain that "the Draft Decision cites no finding by the Regional Board that the permit conditions were the *only means* by which the federal requirement could be implemented; therefore, under *Dept. of Finance I*, the only possible way to find a federally-mandated cost where the requirement is not specified in federal law is unavailable. (1 Cal.5th at 768.)[320] Moreover, the federal mandate exception does not apply because the CWA "*does not specify that a limitation must be numeric, and provides that an effluent limitation may be a schedule of compliance*."[321]

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[316] Exhibit O, Finance's Comments on the Draft Proposed Decision, filed November 4, 2022, pages 1-2.

[317] Exhibit P, Cities of Dublin's and Union City's and Alameda Countywide Clean Water Program's Comments on the Draft Proposed Decision, filed November 4, 2022.

[318] Exhibit P, Cities of Dublin's and Union City's and Alameda Countywide Clean Water Program's Comments on the Draft Proposed Decision, filed November 4, 2022, page 1.

[319] Exhibit P, Cities of Dublin's and Union City's and Alameda Countywide Clean Water Program's Comments on the Draft Proposed Decision, filed November 4, 2022, page 2.

[320] Exhibit P, Cities of Dublin's and Union City's and Alameda Countywide Clean Water Program's Comments on the Draft Proposed Decision, filed November 4, 2022, page 11.

[321] Exhibit P, Cities of Dublin's and Union City's and Alameda Countywide Clean Water Program's Comments on the Draft Proposed Decision, filed November 4, 2022, page 12.

The interested persons assert that the permit requirements reflect multiple layers of discretion by the state. At the highest level, the State *voluntarily* chose to administer its own permitting program under the federal Clean Water Act. Other levels of discretion include, but are not limited to: the Regional Board's exercise of discretion in determining beneficial uses, water quality objectives to reasonably protect beneficial uses and implementation programs to achieve water quality objectives; the "tradeoff" in determining whether BMPs or other nonpoint source pollution controls make more stringent load allocations practicable, in which case WLAs can be made less stringent (40 C.F.R. Part 130.2(i)); and the Regional Board's prescribing of waste discharge requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge.[322]

The interested parties conclude that the TMDL requirements impose a new program or higher level of service. The program is not a general pollution ban, applicable to all dischargers; a position rejected by *Department of Finance v. Commission on State Mandates* (2021) 59 Cal.App.5th 546, 560. Rather, the test claim permit requires programs that carry out the governmental function of providing services to the public. The permit requirements at issue require the MS4 permittees to provide a new program of water pollution abatement services, which is applicable to the local government because they are providing stormwater drainage and flood control systems, a uniquely public service. Furthermore, the TMDL permit requirements impose unique requirements on local governments that do not apply generally to all residents and entities in the state. Local governments are uniquely responsible for controlling pollutants generated by third parties and coming from properties they do not own or control. While there are three general categories of stormwater "point sources" that are regulated under the NPDES Program – municipal discharges, and discharges associated with certain industrial and construction activities – the interested persons take the position that only local governments are responsible for controlling pollutants generated by third parties on land the local governments do not own or control (and are therefore subject to unique requirements in the Test Claim designed to control such pollutants). Additionally, the interested persons assert not all discharges are subject to the WLAs – some MS4 operators, as well as numerous industrial and construction dischargers are exempt.

Finally, the interested persons argue, there is no question that the test claim permit requirements increase services when compared to the prior permit, as is apparent from the face of the test claim permit in section XVIII.B.9, which requires permittees to develop a constituent-specific source control plan for copper, lead and zinc, which must include a monitoring program; and section XVIII.B.10, which requires permittees with discharges to the San Gabriel River/Coyote Creek to develop a monitoring program to monitor dry weather (for copper) and wet weather (for copper, lead, and zinc) flows in Coyote Creek, both of which are new requirements.[323]

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[322] Exhibit P, Cities of Dublin's and Union City's and Alameda Countywide Clean Water Program's Comments on the Draft Proposed Decision, filed November 4, 2022, pages 2, 3.

[323] Exhibit P, Cities of Dublin's and Union City's and Alameda Countywide Clean Water Program's Comments on the Draft Proposed Decision, filed November 4, 2022, pages 4, 20, 23-24.

These parties also comment on the issue of costs mandated by the state. They assert that the Draft Proposed Decision incorrectly concludes that the claimants are not "compelled to rely on proceeds of taxes to pay for the new state-mandated activities," because "the claimants have a number of different revenue streams with which to fund stormwater pollution control activities. Additionally, the proposition that local stormwater programs are not required to rely on proceeds of taxes to pay for new programs and increased levels of service flies in the face of the accepted reality that local agencies have very limited viable means to raise the sufficient funds needed to meet the regulatory requirements imposed by the regional boards for NPDES programs. The inability of local agencies to raise sufficient revenue for stormwater programs due to constitutional restrictions is well-established. In March 2014, the Public Policy Institute of California released a report entitled "Paying for Water in California" that estimated local agencies have stable funding for no more than half that amount, leaving a gap of $500 million to $800 million per year.[324]

Finally, the interested persons assert the overall purpose and effect of Proposition 4 should inform the Commission's analysis. This year, the State was in crisis because it was projected to exceed its own "Gann Limit." This problem could at least be mitigated if the claimants' Test Claim is approved and they receive subventions that would then apply to the local government appropriations limit.[325]

IV. Discussion

Article XIII B, section 6 of the California Constitution provides in relevant part the following:

> Whenever the Legislature or any state agency mandates a new program or higher level of service on any local government, the state shall provide a subvention of funds to reimburse such local government for the costs of such programs or increased level of service…

The purpose of article XIII B, section 6 is to "preclude the state from shifting financial responsibility for carrying out governmental functions to local agencies, which are 'ill equipped' to assume increased financial responsibilities because of the taxing and spending limitations that articles XIII A and XIII B impose."[326] Thus, the subvention requirement of section 6 is "directed to state-mandated increases in the services provided by [local government] …"[327]

Reimbursement under article XIII B, section 6 is required when the following elements are met:

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[324] Exhibit P, Cities of Dublin's and Union City's and Alameda Countywide Clean Water Program's Comments on the Draft Proposed Decision, filed November 4, 2022, page 5.

[325] Exhibit P, Cities of Dublin's and Union City's and Alameda Countywide Clean Water Program's Comments on the Draft Proposed Decision, filed November 4, 2022, page 5, 25-41.

[326] *County of San Diego v. State of California* (1997) 15 Cal.4th 68, 81.

[327] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56.

1. A state statute or executive order requires or "mandates" local agencies or school districts to perform an activity.[328]
2. The mandated activity constitutes a "program" that either:
    a. Carries out the governmental function of providing a service to the public; or
    b. Imposes unique requirements on local agencies or school districts and does not apply generally to all residents and entities in the state.[329]
3. The mandated activity is new when compared with the legal requirements in effect immediately before the enactment of the test claim statute or executive order and it increases the level of service provided to the public.[330]
4. The mandated activity results in the local agency or school district incurring increased costs, within the meaning of section 17514. Increased costs, however, are not reimbursable if an exception identified in Government Code section 17556 applies to the activity.[331]

The Commission is vested with exclusive authority to adjudicate disputes over the existence of state-mandated programs within the meaning of article XIII B, section 6.[332] The determination whether a statute or executive order imposes a reimbursable state-mandated program is a question of law.[333] In making its decisions, the Commission must strictly construe article XIII B, section 6, and not apply it as an "equitable remedy to cure the perceived unfairness resulting from political decisions on funding priorities."[334]

A. The Commission Has Jurisdiction Over This Test Claim.

1. The Test Claim Was Timely Filed With a Period of Reimbursement Beginning June 1, 2009.

Government Code section 17551 provides that local government test claims shall be filed "not later than 12 months following the effective date of a statute or executive order or within 12 months of incurring increased costs as a result of a statute or executive order, whichever is

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[328] *San Diego Unified School Dist. v. Commission on State Mandates* (2004) 33 Cal.4th 859, 874.

[329] *San Diego Unified School Dist. v. Commission on State Mandates* (2004) 33 Cal.4th 859, pages 874-875 (reaffirming the test set out in *County of Los Angeles* (1987) 43 Cal.3d 46, 56.)

[330] *San Diego Unified School Dist*. (2004) 33 Cal.4th 859, 874-875, 878; *Lucia Mar Unified School District v. Honig* (1988) 44 Cal.3d 830, 835.

[331] *County of Fresno v. State of California* (1991) 53 Cal.3d 482, 487; *County of Sonoma v. Commission on State Mandates* (2000) 84 Cal.App.4th 1264, 1284; Government Code sections 17514 and 17556.

[332] *Kinlaw v. State of California* (1991) 54 Cal.3d 326, 335.

[333] *County of San Diego v State of California* (1997) 15 Cal.4th 68, 109.

[334] *County of Sonoma v. Commission on State Mandates* (2000) 84 Cal.App.4th 1265, 1280 [citing *City of San Jose v. State of California* (1996) 45 Cal.App.4th 1802, 1817].

later."[335] At the time this Test Claim was filed, the Commission's regulations defined "within 12 months" as follows:

> For purposes of claiming based on the date of first incurring costs, "within 12 months" means by June 30 of the fiscal year following the fiscal year in which increased costs were first incurred by the test claimant.[336]

The test claim permit was adopted by the Regional Board on May 22, 2009, and became effective ten days later (June 1, 2009).[337] Twelve months following the effective date of the test claim permit was June 1, 2010.

The claimants state, however, they first incurred costs under the permit "within either FY 2008-09 or FY 2009-10."[338] The earliest date provided in the record is in the declaration of Richard Boon, Chief of the Orange County Stormwater Program within Orange County Public Works, who states that the County first incurred costs under the test claim permit "in June 2009."[339] Therefore, pursuant to Government Code section 17551, and the interpretation of the Commission's regulations that provides until June 30 of the fiscal year following the fiscal year in which costs were first incurred, a timely filing on the 2009 test claim permit must occur prior to June 30, 2011. The test claim was filed June 30, 2010, and is therefore timely filed.[340]

Government Code section 17557(e) requires a test claim to be "submitted on or before June 30 following a fiscal year in order to establish eligibility for reimbursement for that fiscal year." Because the Test Claim was filed on June 30, 2010, the potential period of reimbursement under Government Code section 17557 begins on July 1, 2008. However, since the test claim permit has a later effective date, the potential period of reimbursement for this claim begins on the permit's effective date, or June 1, 2009.

2. The Claimants Are Not Required to Exhaust Administrative Remedies with the State Board Prior to Filing a Test Claim with the Commission.

The Regional Board argues that the "test claim [filing] constitutes an impermissible collateral attack on the Permit."[341] The Regional Board asserts that the Test Claim "requires a finding that permit provisions exceed the minimum federal requirements established by the MEP standard,"

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[335] Government Code section 17551(c) (Stats. 2007, ch. 329).

[336] California Code of Regulations, title 2, section 1183.1(b) (Register 2016, No. 38).

[337] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 352 [Order No. R8-2009-0030].

[338] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 56.

[339] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 113 (Declaration of Richard Boon, Orange County Public Works).

[340] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 1.

[341] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 19.

which is an issue "within the administrative jurisdiction of the State Water Board."[342] The Regional Board maintains that "[t]he Water Code provides an administrative remedy to a party challenging a Regional Water Board decision," and "[a]llowing the Commission to adjudicate a matter properly within the expertise and jurisdiction of the State Water Board offends the basic policies of the doctrine of exhaustion."[343] Relatedly, the Regional Board is asserting that because the resolution of the Test Claim calls upon the Commission to resolve the extent to which the test claim permit is mandated under state law, rather than federal law, the Commission's role intrudes upon the prerogative of the State Board, and overlaps with the direct challenge being brought by the permittees under the Water Boards' processes. The Regional Board concludes that the Commission "must abstain from hearing the Test Claim until the State Water Board has determined whether the provisions of the permit issued by the Regional Board exceed the MEP standard."[344]

The Board's argument is unfounded. The Commission has exclusive jurisdiction to determine whether a statute or executive order imposes a reimbursable state-mandated program, and the Test Claim does not constitute a collateral attack on the test claim permit on the merits.[345]

In *Department of Finance v. Commission on State Mandates*, the Court explained, by way of exposition: "The Legislature has enacted comprehensive procedures for the resolution of reimbursement claims and created the Commission to adjudicate them."[346] The Court later distinguished between a challenging a storm water permit on the merits and seeking reimbursement in the context of a test claim:

> Certainly, in a trial court action challenging the *board's authority* to impose specific permit conditions, the board's findings regarding what conditions satisfied the federal standard would be entitled to deference. (See, e.g., *City of Rancho Cucamonga v. Regional Water Quality Control Bd.* (2006) 135 Cal.App.4th 1377, 1384, 38 Cal.Rptr.3d 450, citing *Fukuda v. City of Angels* (1999) 20 Cal.4th 805, 817–818, 85 Cal.Rptr.2d 696, 977 P.2d 693) Resolution of those questions would bring into play the particular technical expertise possessed by members of the regional board. In those circumstances, the party challenging the board's decision would have the burden of demonstrating its findings were not supported by substantial evidence or that the board otherwise abused its discretion. (*Rancho Cucamonga*, at p. 1387, 38 Cal.Rptr.3d 450;

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[342] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 18.

[343] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, pages 18-19.

[344] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 19.

[345] Government Code section 17552; *County of Los Angeles v. Commission on State Mandates* (2007) 150 Cal.App.4th 898, 917-920, which concludes that NPDES permits are executive orders pursuant to Government Code section 17516 and that the existence of a state mandate is a matter for the Commission's determination.

[346] *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 759.

Building Industry [*Assn. of San Diego County v. State Water Resources Control Board* (2004)] 124 Cal.App.4th [866,] 888–889, 22 Cal.Rptr.3d 128.)

Reimbursement proceedings before the Commission are different. The question here was not whether the Regional Board had authority to impose the challenged requirements. It did. The narrow question here was who will pay for them. In answering that legal question, the Commission applied California's constitutional, statutory, and common law to the single issue of reimbursement. In the context of these proceedings, the State has the burden to show the challenged conditions were mandated by federal law.

[¶…¶]

Moreover, the policies supporting article XIII B of the California Constitution and section 6 would be undermined if the Commission were required to defer to the Regional Board on the federal mandate question.[347]

Here, the Board is asserting that the Test Claim constitutes a collateral attack on the test claim permit, but *Department of Finance* clearly demonstrates that the courts understand the Commission's role to be distinct from a direct challenge on the merits of a permit: "[t]he narrow question here [is] who will pay" for an alleged mandate, which the Commission is charged with determining in the first instance.[348]

3. The Commission Does Not Have Jurisdiction Over the 2002 Permit and the Requirements Pled in the 2009 Test Claim Permit Are Compared to the Law in Effect Immediately Prior to the Adoption of the Test Claim Permit, Including the 2002 Permit, to Determine if the Activities Required by the 2009 Test Claim Permit Are New.

The claimants' comments on the Draft Proposed Decision contend that "even if certain . . . obligations were carried forward into the 2009 Permit [from the prior 2002 permit], they still are 'new' obligations and a 'higher level of service' because: (1) The 2009 Permit's obligations cannot be compared with those in the 2002 Permit because the permittees were legally precluded from filing a test claim with respect to the obligations in the 2002 Permit [since Government Code section 17516 excluded stormwater permits from the definition of executive order]; and (2) The permittees had no obligation to continue to implement . . . the 2002 Permit once the 2002 Permit terminated."[349] Thus, the claimants are contending that all activities pled in the test claim are new and that the Commission should not be comparing the requirements from the prior permit to the test claim permit. These arguments are not legally correct.

The claimants' second point above contends that all of the requirements in the 2009 test claim permit are new because the claimants had no obligation to continue to comply with the 2002

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[347] *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 768-769.

[348] *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 769.

[349] Exhibit M, Claimants' Comments on Draft Proposed Decision, filed November 4, 2022, pages 19-20 (with respect to the TMDL issues), page 32 (with respect to the Public Education requirements).

permit once the 2002 permit terminated.[350] In other words, the claimants want the Commission to interpret stormwater permits as contracts that expire, and that every permit is a new contract. This interpretation is not consistent with article XIII B, section 6 or the courts' interpretation of these permits as executive orders.

Under the Clean Water Act, the term of an NPDES permit is five years.[351] However, states authorized to administer the NPDES program may continue the state-issued permit until the effective date of a new permit, if state law allows.[352] California's regulations provide that the terms and conditions of an expired permit are automatically continued pending issuance of a new permit if all requirements of the federal NPDES regulations on continuation of expired permits have been complied with.[353] As indicated in the test claim permit,

> Order No. R8-2002-0010 [the prior permit] expired on January 19, 2007. On July 22, 2006, the permittees submitted a Report of Waste Discharge for renewal of the Permit. On February 20, 2007, Order No. 2002-0010, NPDES No. CAS618030, was *administratively extended in accordance with Title 23, Division 3, Chapter 9, §2235.4 of the California Code of Regulations*.[354]

Thus, there was no gap in time between the prior permit and the test claim permit.

The courts have found that NPDES permits are executive orders issued by a state agency within the meaning of article XIII B, section 6.[355] The purpose of article XIII B, section 6 is to prevent the state from forcing extra programs on local government each year in a manner that negates their careful budgeting of increased expenditures counted against the local government's annual spending limit and, thus, article XIII B, section 6 requires a showing that the test claim statute or executive order mandates *new* activities and associated costs compared to the prior year.[356] This was the case in *Department of Finance. v. Commission on State Mandates* (2021) 59 Cal.App.5th 546, where the court found that installing and maintaining trash receptacles at transit stops and

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[350] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 19.

[351] 33 United States Code section 1342(b).

[352] Code of Federal Regulations, title 40, section 122.6(d).

[353] California Code of Regulations, title 23, section 2235.4.

[354] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 275 [Order No. R8-2009-0030, Finding 15].

[355] *County of Los Angeles v. Commission on State Mandates* (2007) Cal.App.4th 898, 905, 919-920; *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 762; *Department of Finance. v. Commission State Mandates* (2021) 59 Cal.App.5th 546, 558.

[356] California Constitution, articles XIII B, sections 1, 8(a) and (b); *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56; *Lucia Mar Unified School Dist. v. Honig* (1988) 44 Cal.3d 830, 835; *Hayes v. Commission on State Mandates* (1992) 11 Cal.App.4th 1564, 1595; *County of Sonoma v. Commission on State Mandates* (2000) 84 Cal.App.4th 1264, 1283; *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 763.

performing certain inspections as required by that stormwater permit were both *new duties* that local governments were required to perform, when compared to prior law ("the mandate to install and maintain trash receptacles at transit stops is a 'new program' within the meaning of section 6 because it was not required prior to the Regional Board's issuance of the permit").[357]

Other examples include *Lucia Mar Unified School Dist.*, which addressed a 1981 test claim statute that required local school districts to pay the cost of educating pupils in state schools for the severely handicapped – costs that the state had previously paid in full until the 1981 statute became effective.[358] The court held that the requirement imposed on local school districts to fund the cost of educating these pupils was new "*since at the time [the test claim statute] became effective* they were not required to contribute to the education of students from their districts at such schools."[359] The same analysis was applied in *County of San Diego*, where the court found that the state took full responsibility to fund the medical care of medically indigent adults in 1979, which lasted until the 1982 test claim statute shifted the costs back to counties.[360] In *City of San Jose*, the court addressed the1990 test claim statute, which authorized counties to charge cities for the costs of booking into county jails persons who had been arrested by employees of the cities.[361] The court denied the city's claim for reimbursement, finding that the costs were not shifted by the state since "*at the time [the 1990 test claim statute] was enacted*, and indeed long before that statute, the financial and administrative responsibility associated with the operation of county jails and detention of prisoners was borne entirely by the county."[362] In *San Diego Unified School District*, the court determined that the required activities imposed by 1993 test claim statutes, which addressed the suspension and expulsion of K-12 students from school, were "new in comparison with the preexisting scheme in view of the circumstances that they did not exist prior to the enactment of [the 1993 test claim statutes]."[363]

Thus, it is not legally correct or consistent with article XIII B, section 6 to ignore the requirements imposed on the claimants by the prior permit to determine what is new.

Second, the claimants suggest that the test claim permit cannot be compared to the prior 2002 permit since at the time the 2002 permit was adopted, Government Code section 17516 excluded from the definition of "executive order" any order, requirement, rule, or regulation issued by the State Water Resources Control Board or by any Regional Board and, thus, a test claim on the 2002 permit could not have been filed and the claimants could not seek reimbursement for those costs. The claimants therefore contend that they are not precluded from seeking reimbursement for the

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[357] *Department of Finance. v. Commission State Mandates* (2021) 59 Cal.App.5th 546, 558.

[358] *Lucia Mar Unified School Dist. v. Honig* (1988) 44 Cal.3d 830, 832.

[359] *Lucia Mar Unified School Dist. v. Honig* (1988) 44 Cal.3d 830, 835, emphasis added.

[360] *County of San Diego v. State of California* (1997) 15 Cal.4th 68, 91.

[361] *City of San Jose v. State* (1996) 45 Cal.App.4th 1802.

[362] *City of San Jose v. State* (1996) 45 Cal.App.4th 1802, 1812, emphasis added.

[363] *San Diego Unified School Dist. v. Commission on State Mandates* (2004) 33 Cal.4th 859, 878 (see also page 869, footnotes 6 and 7, and page 870, footnote 9, where the court describes in detail the state of the law immediately before the enactment of the 1993 test claim statutes).

activities that were originally required by the prior 2002 permit and carried over to the test claim permit. The claimants' arguments are as follows:

> Thus, in 2002 and 2003, the permittees could not file a test claim seeking reimbursement for obligations imposed by the 2002 Permit. It is well established that a party is not precluded from pursuing a claim in a current proceeding where that party could not have pursued the claim in the past. For example, with respect to "issue preclusion" [fn. omitted] if an issue was not within a court's power to decide the issue in the first action, it is not precluded in a later action. *Strangman v. Duke* [fn. citation omitted] ("The rule of res judicata does not apply to causes or issues which were not and could not be before the court in the first proceeding.") *See also State Compensation Insurance Fund v. Ready Link Healthcare, Inc.* [fn. citation omitted] (defendant not precluded from litigating amount of premium due where such issue could not have been brought in prior administrative proceeding because insurance commissioner lacked power to hear that issue); *Hong Sang Market, Inc. v. Peng* [fn. citation omitted] ("Thus, in a situation in which a court in the first action would clearly not have had jurisdiction to entertain the omitted theory or ground ... then a second action in a competent court presenting an omitted theory or ground should be held not precluded"), quoting *Merry v. Coast Community College Dist.* [fn. citation omitted.]
>
> An analogous principle applies with respect to the exhaustion of administrative remedies. Where a party is precluded from exhausting its administrative remedies, or to do so would be futile, the exhaustion requirement is not a bar to further proceedings. Moreover, it is well established that the exhaustion requirement is not applicable where an effective administrative remedy is wholly Jacking. *Glendale City Employees' Association, Inc. v. City of Glendale* [fn. citation omitted] (exhaustion of administrative remedies does not apply if the remedy is inadequate). *See also Association for Los Angeles Deputy Sheriffs v. County of Los Angeles* [fn. citation omitted] (where pursuing administrative remedies would not provide class-wide relief, failure to pursue administrative remedy does not bar such relief).[364]

The claimants are correct that Government Code section 17516(c), as originally enacted, excluded from the definition of "executive order" any order, requirement, rule, or regulation issued by the State Water Resources Control Board or by any Regional Board as follows:

> "Executive order" does not include any order, plan, requirement, rule, or regulation issued by the State Water Resources Control Board or by any regional water quality control board pursuant to Division 7 (commencing with Section 13000) of the Water Code. It is the intent of the Legislature that the State Water Resources Control Board and regional water quality control boards will not adopt enforcement orders against publicly owned dischargers which mandate major waste water treatment facility construction costs unless federal financial

[364] Exhibit M, Claimants' Comments on Draft Proposed Decision, filed November 4, 2022, pages 19-20.

> assistance and state financial assistance pursuant to the Clean Water Bond Act of 1970 and 1974, is simultaneously made available. "Major" means either a new treatment facility or an addition to an existing facility, the cost of which is in excess of 20 percent of the cost of replacing the facility.[365]

In 2003, the County of Los Angeles and surrounding cities filed a test claim with the Commission (*Municipal Storm Water and Urban Runoff Discharges*, 03-TC-04, 03-TC-20, and 03-TC-21) which was returned by the Executive Director for lack of jurisdiction based on the plain language of Government Code section 17516. The county and cities appealed to the Commission, and in 2004, the Commission denied the appeal on the ground that it did not have the authority to declare section 17516 unconstitutional pursuant to article III, section 3.5 of the California Constitution.[366] The county and city filed a petition for writ of mandate under Code of Civil Procedure sections 1085 and 1094.5 directing the state to provide reimbursement or directing the Commission to hear the test claims, and a complaint for declaratory relief, requesting the court to declare Government Code section 17516 unconstitutional. The Second District Court of Appeal found that Government Code section 17516 was not consistent with article XIII B, section 6 and was therefore unconstitutional, and remanded the test claims to the Commission to hear them in the first instance.[367] In 2010, Government Code section 17516 was amended to delete the exclusionary paragraph quoted above.[368]

However, even though the Commission could not have accepted stormwater test claims until 2007, when the court determined that section 17516 was unconstitutional, the claimants were not without a remedy following the adoption of the 2002 permit. Like the County of Los Angeles, the claimants could have filed a test claim, which would have been returned, and then filed a lawsuit challenging Government Code section 17516 as unconstitutional and requesting reimbursement under article XIII B, section 6. The claimants could have also filed a lawsuit directly with the courts, bypassing the Commission's administrative process, based on futility grounds since the Commission previously returned the Los Angeles test claims on the ground that it had to presume Government Code section 17516 constitutional. The California Supreme Court explained the futility exception to the exhaustion of administrative remedies as follows:

> Ordinarily, counties seeking to pursue an unfunded mandate claim under section 6 must exhaust their administrative remedies. (Citations omitted.) However, counties may pursue section 6 claims in superior court without first resorting to

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[365] Government Code section 17516(c) (Stats.1984, ch. 1459).

[366] *County of Los Angeles v. Commission on State Mandates* (2007) 150 Cal.App.4th 898, 904. Article III, section 3.5 of the California Constitution provides that an administrative agency has no power to "declare a statute unenforceable, or to refuse to enforce a statute on the basis that federal law or federal regulations prohibit the enforcement of such statute unless an appellate court has made a determination that the enforcement of such statute is prohibited by federal law or federal regulations."

[367] *County of Los Angeles v. Commission on State Mandates* (2007) 150 Cal.App.4th 898, 919-921.

[368] Government Code section 17516 (as amended by Stats. 2010, ch. 288).

> administrative remedies if they "can establish an exception to" the exhaustion requirement. (Citation omitted.) The futility exception to the exhaustion requirement applies if a county can "state with assurance that the [Commission] would rule adversely in its own particular case.[369]

The futility exception was applied in the *County of San Diego* case, which sought reimbursement under article XIII B, section 6 for the Medically Indigent Adult statutes. There, the County of San Diego invoked this exception by alleging that the Commission's denial of its claim was "virtually certain" because the Commission had previously denied the claims of other counties, ruling that county medical care programs for adult medically indigent adults are not state-mandated and, therefore, counties are not entitled to reimbursement.[370] Since the Commission rejected the Los Angeles Test Claim (which alleged the same claim that San Diego alleged) and appealed the judicial reversal of its decision, the trial court correctly determined that further attempts to seek relief from the Commission would have been futile.[371]

Thus, the claimants were not precluded from seeking a remedy from the courts after the 2002 permit was adopted.

Moreover, the Commission does not now have the authority to determine if the activities required by the 2002 permit are eligible for reimbursement under article XIII B, section 6. The 2002 permit was adopted on January 18, 2002, and became effective ten days later.[372] At that time, Government Code section 17551 did not contain a period of limitations to file a test claim; as long as the alleged mandate was adopted after January 1, 1975, a test claim could be filed at any time. Effective September 30, 2002, however, Government Code section 17551(c) was amended to require test claims to be filed "not later than three years following the date the mandate became effective, or in the case of mandates that became effective before January 1, 2002, the time limit shall be one year from the effective date of this subdivision."[373] The 2002 permit became effective on January 28, 2002 (after January 1, 2002) and, thus, the claimants had three years from that date, or until January 28, 2005, to file a test claim on the 2002 permit. Since the period of limitations has expired, the Commission no longer has the authority to determine if the activities originally required by the 2002 permit are eligible for reimbursement under article XIII B, section 6.[374]

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[369] *County of San Diego v. State of California* (1997) 15 Cal.4th 68, 89.

[370] *County of San Diego v. State of California* (1997) 15 Cal.4th 68, 89.

[371] *County of San Diego v. State of California* (1997) 15 Cal.4th 68, 90.

[372] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 435 [Order No. R8-2002-0010].

[373] Government Code section 17551 (Stats. 2002, ch. 1124).

[374] *American Federation of Labor v. Unemployment Insurance Appeals Bd.* (1996) 13 Cal.4th 1017, 1042, "[A]dministrative agencies have only the powers conferred on them, either expressly or by implication, by Constitution or statute."

Accordingly, in accordance with article XIII B, section 6 and the authorities cited above, the requirements pled in the 2009 test claim permit are compared to prior law, including the prior 2002 permit, to determine if the required activities are new.

B. Some Activities Required by the Test Claim Permit Impose a State-Mandated New Program or Higher Level of Service.

1. The Requirements in Sections XVIII.B.8 and XVIII.B.9 of the Test Claim Permit, to Submit to the Regional Board a Cooperative Watershed Program to Implement the TMDL for Selenium and to Develop a Constituent-Specific Source Control Plan to Comply with the San Gabriel Metals TMDL, Impose a State-Mandated New Program or Higher Level of Service. However, the Remaining Requirements in Sections XVIII.B.4, XVIII.B.8, XVIII.B.9, XVIII.C.1, and XVIII.D.1, to Monitor, Implement Best Management Practices (BMPs), and Revise BMPs to Comply with the Wasteload Allocations (WLAs) in the TMDLs if an Exceedance Occurs, Do Not Mandate a New Program or Higher Level of Service.

The claimants allege sections XVIII.B.1 through XVIII.B.5, XVIII.B.7 through XVIII.B.9, XVIII.C.1, and XVIII.D.1 of the test claim permit require them to comply with numeric effluent limits for a number of constituent pollutants (metals, organochlorine compounds, selenium, fecal coliform, and pesticides), to implement total maximum daily loads (TMDLs) for those pollutants in Newport Bay, San Diego Creek, and reaches in the San Gabriel River and Coyote Creek.[375] The claimants allege that the test claim permit imposes the following requirements:

1) compels compliance with numeric limits taken from wasteload allocation within TMDLs;

2) requires compliance with numeric limits derived from TMDLs not "approved by EPA";

3) requires that the Permittees actually develop certain TMDLs (which is the responsibility of the State and/or the EPA); and

[375] The interested persons assert that section XVIII.B.10 of the test claim permit, which implements the metals TMDL for Coyote Creek, requires permittees with discharges to the San Gabriel River/Coyote Creek to develop a monitoring program to monitor dry weather (for copper) and wet weather (for copper, lead, and zinc) flows in Coyote Creek. (Exhibit P, Cities of Dublin's and Union City's and Alameda Countywide Clean Water Program's Comments on the Draft Proposed Decision, filed November 4, 2022, pages 4, 20, 23-24.) However, the claimants did not plead section XVIII.B.10 and this Decision does not analyze that section. (See Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 76-80, identifying claims relating only to Sections XVIII.B.1-5, XVIII.B.7-9, XVIII.C.1, and XVIII.D.1; Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 112-114 (Declaration of Richard Boon, Chief of the Orange County Stormwater Program within Orange County Public Works, declaring costs for only Sections XVIII.B.1-5, XVIII.B.7-9, XVIII.C.1, and XVIII.D.1); Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, pages 6-8.)

4) requires the Permittees to conduct various studies and monitoring, and develop and implement new programs and implementation plans, all in connection with the development of TMDLs.[376]

As explained in the Findings of the test claim permit, these waterbodies were listed under section 303(d) as impaired since these constituents exceeded applicable State water quality standards. One of the listed causes of the impairment was urban runoff.[377] Federal law requires that TMDLs be established for each 303(d) listed waterbody for each of the pollutants causing impairment.[378] In 2002, U.S. EPA adopted TMDLs for the region's waterbodies with respect to metals, organochlorine compounds, selenium, and pesticides in Newport Bay and San Diego Creek, and the test claim permit implements those TMDLs. In addition, the Regional Board was in the process of developing its own TMDLs to replace the U.S. EPA TMDLs, and the test claim permit imposes requirements related to that transition. The test claim permit also implements the 1999 TMDL for fecal coliform in San Diego Creek and Newport Bay, and implements 2007 TMDLs adopted by U.S. EPA for metal and selenium for permittees that have discharges tributary to the San Gabriel River or Coyote Creek.

As explained below, the Commission finds that the requirements in Sections XVIII.B.8 and XVIII.B.9 of the test claim permit imposes a state-mandated new program or higher level of service to submit to the Regional Board a Cooperative Watershed Program to implement the TMDL for selenium and to develop a constituent-specific source control plan to comply with the San Gabriel metals TMDL. However, Sections XVIII.B. 5 and 7 do not impose any requirements. In addition, the remaining requirements in Sections XVIII.B.4, XVIII.B.8, XVIII.B.9, XVIII.C.1, and XVIII.D.1, to monitor, implement BMPs, and revise BMPs to comply with the WLAs in the TMDLs if an exceedance occurs, do not mandate a new program or higher level of service.

a. Federal law requires states to establish TMDLs for impaired waterbodies to attain water quality standards necessary to protect the designated beneficial uses of the waterbody and requires that effluent limits "consistent with the assumptions and requirements of any available wasteload allocation for the discharge" contained in a TMDL be included in NPDES Permits.

As discussed in the Background, the CWA requires states to develop a list of waters within their jurisdiction that are "impaired," meaning that existing controls of pollutants are not sufficient to meet water quality standards (including the numeric criteria in the NTR and CTR) necessary to permit the designated beneficial uses, such as fishing or recreation. States must then rank those impaired waters by priority, and establish a TMDL, which includes a calculation of the maximum amount of each constituent pollutant that the water body can assimilate and still meet

[376] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 80.

[377] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 284 [Order No. R8-2009-0030, p. 14, para. 40].

[378] United States Code, title 33, section 1313(d).

water quality standards.[379] A TMDL represents the total assimilative capacity of a water body for a specific constituent pollutant, with a margin of safety, which is protective of that water body's identified beneficial uses. Usually a TMDL will also include WLAs, which divide up the total assimilative capacity of the receiving waters among the known point source dischargers, and load allocations (LAs) for non-point source discharges.[380] The development of a TMDL triggers further regulatory action by the state, as explained by the court in *City of Arcadia v. U.S. EPA*:

> TMDLs established under Section 303(d)(1) of the CWA function primarily as planning devices and are not self-executing. *Pronsolino v. Nastri*, 291 F.3d 1123, 1129 (9th Cir.2002) ("TMDLs are primarily informational tools that allow the states to proceed from the identification of waters requiring additional planning to the required plans.") (citing *Alaska Ctr. for the Env't v. Browner*, 20 F.3d 981, 984–85 (9th Cir.1994)). A TMDL does not, by itself, prohibit any conduct or require any actions. Instead, each TMDL represents a goal that may be implemented by adjusting pollutant discharge requirements in individual NPDES permits or establishing nonpoint source controls. See, e.g., *Sierra Club v. Meiburg*, 296 F.3d 1021, 1025 (11th Cir.2002) ("Each TMDL serves as the goal for the level of that pollutant in the waterbody to which that TMDL applies.... The theory is that individual-discharge permits will be adjusted and other measures taken so that the sum of that pollutant in the waterbody is reduced to the level specified by the TMDL."); *Idaho Sportsmen's Coalition v. Browner*, 951 F.Supp. 962, 966 (W.D.Wash.1996) ("TMDL development in itself does not reduce pollution.... TMDLs inform the design and implementation of pollution control measures."); *Pronsolino*, 291 F.3d at 1129 ("TMDLs serve as a link in an implementation chain that includes ... state or local plans for point and nonpoint source pollution reduction ...."); *Idaho Conservation League v. Thomas*, 91 F.3d 1345, 1347 (9th Cir.1996) (noting that a TMDL sets a goal for reducing pollutants). Thus, a TMDL forms the basis for further administrative actions that may require or prohibit conduct with respect to particularized pollutant discharges and waterbodies.

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[379] United States Code, title 33, section 1313(d); Code of Federal Regulations, title 40, section 130.7(c).

[380] United States Code, title 33, section 1313(d). Code of Federal Regulations, title 40, section 130.2(h) defines WLA as "The portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution. WLAs constitute a type of water quality-based effluent limitation." Code of Federal Regulations, title 40, section 130.2(g) defines LA as "The portion of a receiving water's loading capacity that is attributed either to one of its existing or future nonpoint sources of pollution or to natural background sources. Load allocations are best estimates of the loading, which may range from reasonably accurate estimates to gross allotments, depending on the availability of data and appropriate techniques for predicting the loading. Wherever possible, natural and nonpoint source loads should be distinguished."

> For point sources, limitations on pollutant loadings may be implemented through the NPDES permit system. 40 C.F.R. § 122.44(d)(1)(vii)(B). EPA regulations require that effluent limitations in NPDES permits be "consistent with the assumptions and requirements of any available wasteload allocation" in a TMDL. *Id*.[381]

Once a TMDL is adopted, it must be approved by U.S. EPA. If U.S. EPA does not approve the TMDL, it must, within 30 days after disapproval "establish such loads for such waters as [it] determines necessary to implement the water quality standards applicable to such waters."[382] A regional board is then required by federal law to incorporate the TMDL into the Basin Plan.[383] Basin Plan amendments do not become effective until approved by the State Water Board and the Office of Administrative Law (OAL).[384]

Regional boards are then required by federal law to include effluent limits that comply with "all applicable water quality standards" and are "consistent with the assumptions and requirements of any available wasteload allocation for the discharge" in NPDES permits as follows:

> When developing water quality-based effluent limits under this paragraph the permitting authority shall ensure that:
>
> (A) The level of water quality to be achieved by limits on point sources established under this paragraph is derived from, and complies with all applicable water quality standards; and
>
> (B) Effluent limits developed to protect a narrative water quality criterion, a numeric water quality criterion, or both, are consistent with the assumptions and requirements of any available wasteload allocation for the discharge prepared by the State and approved by EPA pursuant to 40 CFR 130.7.[385]

An "effluent limitation" is defined in the CWA as "*any restriction* established by a State or the Administrator on *quantities, rates, and concentrations* of chemical, physical, biological, and other constituents which are discharged from point sources into navigable waters, the waters of the contiguous zone, or the ocean, including schedules of compliance."[386] The definition of "effluent limitation" in the CWA "does not specify that a limitation must be numeric, and

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[381] *City of Arcadia v. U.S. EPA* (2003) 265 F.Supp.2d 1142, 1145.

[382] United States Code, title 33, section 1313(d)(2); Code of Federal Regulations, title 40, section 130.7(d)(2).

[383] United States Code, title 33, section 1313(d)(2); Code of Federal Regulations, title 40, sections 130.6, 130.7(d)(2).

[384] California Government Code section 11353.

[385] Code of Federal Regulations, title 40, section 122.44(d)(1)(vii).

[386] United States Code, title 33, section 1362(11). See also Code of Federal Regulations, title 40, section 122.2.

provides that an effluent limitation may be a schedule of compliance."[387] Federal EPA guidance states, however, that in cases where adequate information exists to develop more specific numeric effluent limitations to meet water quality standards, these numeric limitations are to be incorporated into stormwater permits as necessary and appropriate.[388] Any schedule of compliance shall require compliance as soon as possible, but not later than the applicable statutory deadline under the CWA.[389] Compliance schedules that are longer than one year in duration must set forth interim requirements and dates for their achievement.[390] If the compliance schedule extends past the expiration date of the permit, the schedule must include the final effluent limitations in the permit to ensure enforceability under the CWA.[391] Schedules of compliance included in a permit must be approved by EPA and be based on a reasonable finding, adequately supported by the administrative record, that:

- The compliance schedule will lead to compliance with an effluent limitation to meet water quality standards by the end of the compliance schedule.[392]
- The compliance schedule is "appropriate" and that compliance with the final water quality based effluent limit is required "as soon as possible."[393]
- The discharger cannot immediately comply with the water quality based effluent limit upon the effective date of the permit.[394]

In addition, to meet water quality standards federal law also requires dischargers to monitor compliance with the effluent limitations identified in an NPDES permit, implement best management practices to control the pollutants, and report monitoring results at least once per year, or within 24 hours for any noncompliance which may endanger health or the

[387] *Communities for a Better Environment v. State Water Resources Control Board* (2003) 109 Cal.App.4th 1089, 1104.

[388] Exhibit Q (16), *Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water Permits*, 61 FR 43761, August 26, 1996.

[389] Code of Federal Regulations, title 40, section 122.47(a)(1).

[390] Code of Federal Regulations, title 40, section 122.47(a)(3).

[391] Exhibit Q (37), U.S. EPA Memorandum, *Compliance Schedules for Water Quality-Based Effluent Limitations in NPDES Permits*, May 10, 2007, page 2.

[392] United States Code, title 33, section 1311(b)(1)(C); Code of Federal Regulations, title 40, sections 122.2, 122.44(d)(1)(vii)(A).

[393] Code of Federal Regulations, title 40, section 122.47(a)(1); Exhibit Q (37), U.S. EPA Memorandum, *Compliance Schedules for Water Quality-Based Effluent Limitations in NPDES Permits*, May 10, 2007, pages 2-3.

[394] Code of Federal Regulations, title 40, section 122.47(a)(1).

environment.[395] An NPDES permit is unlawful if a permittee is not required to effectively monitor its permit compliance.[396]

If a permittee fails to comply with these federal requirements, or otherwise violates the conditions in an NPDES permit, it may be subject to state and federal enforcement actions and private citizen lawsuits for injunctive relief and civil penalties.[397]

b. Before the test claim permit was adopted, TMDLs for metals, organochlorine compounds, selenium, fecal coliform, and pesticides in San Diego Creek, Lower Newport Bay, San Gabriel River, and Coyote Creek were adopted, and the prior permit required the permittees to meet water quality standards by monitoring, implementing BMPs and all necessary controls to prevent the discharge of these pollutants, and to report any exceedances to the Regional Board.

In May 1996, the State submitted a 303(d) list, which identified three water quality limited segments for Newport Bay (Upper and Lower Newport Bay, and San Diego Creek) as impaired due to several toxic pollutants (metals, pesticides, and priority organics) and designated this watershed as high priority for TMDL development, which was partially approved and modified by U.S. EPA.[398] In 1997, Defend the Bay, Inc. filed a lawsuit alleging that the State of California failed to establish TMDLs for the Upper and Lower Newport Bay, and San Diego Creek, and thus sought to compel the U.S. EPA to establish TMDLs in those segments under the Clean Water Act.[399] Defend the Bay alleged that the State's failure to establish TMDLs imposed on U.S. EPA a nondiscretionary duty to develop TMDLs for Newport Bay. The parties settled the case without protracted litigation, the terms of which were then approved by the court on November 13, 1997, with a consent decree. The consent decree recognized that California had submitted a "303(d) list" identifying parts of Newport Bay as impaired in May of 1996, and that

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[395] 33 United States Code section 1342(p)(3)(B)(iii) requires that permits for discharges from municipal storm sewers "shall require controls to reduce the discharge of pollutants to the maximum extent practicable, *including management practices*, control techniques and system, design and engineering methods, and such other provisions as . . . the State determines appropriate for the control of such pollutants." (Emphasis added.) See also, Code of Federal Regulations, title 40, sections 122.41 (conditions applicable to all permits, including monitoring and reporting requirements); section 122.44(i) (monitoring requirements to ensure compliance with permit limitations); section 122.48 (requirements for recording and reporting monitoring results); and Part 127 (electronic reporting).

[396] 40 Code of Federal Regulations section 122.26(d)(2)(i)(F); see also *Natural Resources Defense Council, Inc. v. County of Los Angeles* (2013) 725 F.3d 1194, 1209.

[397] United States Code, title 33, sections 1319, 1342(b)(7), 1365(a).

[398] Exhibit Q (4), Consent Decree, *Defend the Bay Inc. v. Marcus*, 1997 WL 732512 (United States District Court, Northern District of California), page 1; Exhibit Q (38), U.S. EPA, Newport Bay Toxics TMDLs, June 14, 2002, pages 3-4 [Excerpt from Administrative Record on Order No. R8-2009-0030, Part I].

[399] Exhibit Q (4), Consent Decree, *Defend the Bay Inc. v. Marcus*, 1997 WL 732512 (United States District Court, Northern District of California), pages 1-2.

California's failure to establish TMDLs for Newport Bay "imposes on EPA a nondiscretionary duty to develop TMDLs…" In addition, "[d]uring the negotiation of the consent decree, Regional Board staff provided a more specific list of pollutants covered by these general pollutant categories used in the listing decisions, and the consent decree refers to this more specific pollutant list."[400] Accordingly, the consent decree required EPA to assure that TMDLs for metals, nutrients, pathogens, pesticides, priority organics, and sediment in Water Quality Limited Segments in Newport Bay identified in the State 303(d) List are established, with the last TMDL established by January 2002, consistent with the following schedule:[401]

> 1. TMDLs for nutrients and sediment for the reaches of Newport Bay listed pursuant to Section 303(d) of the CWA, 33 U.S.C. § 1313(d), on the State 303(d) List for these pollutants will be established no later than January 15, 1998;
>
> 2. A TMDL for pathogens for the reaches of Newport Bay listed pursuant to Section 303(d) of the CWA, 33 U.S.C. § 1313(d), on the State 303(d) List for this pollutant will be established no later than January 15, 2000; and
>
> 3. TMDLs for the metals, pesticides and priority organics identified in subparagraph IV.B of this Consent Decree for the reaches of Newport Bay listed pursuant to Section 303(d) of the CWA, 33 U.S.C. § 1313(d), on the State 303(d) List for these pollutants will be established no later than January 15, 2002.
>
> 4. If the State fails to establish any of the TMDLs for identified WQLSs in Newport Bay for the pollutants of concern identified in subparagraphs IV.A.1 through IV.A.3 by the deadline provided for in this Consent Decree, EPA shall establish TMDLs for those pollutants by no later than 90 days following the deadline set forth in subparagraphs IV.A.1 through IV.A.3.[402]

Paragraph 3 of the consent decree refers to the metals, pesticides, and priority organics identified in subparagraph IV.B of the consent decree as needing TMDLs in Newport Bay. Subparagraph B identifies the following pollutants:

> San Diego Creek
>
> Metals: Cadmium, Chromium, Copper, Lead, Zinc
>
> Priority Organics: Endosulfan, DDT, PCBs, Toxaphene, Chlorpyrifos

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[400] Exhibit Q (38), U.S. EPA, Newport Bay Toxics TMDLs, June 14, 2002, page 4 [Excerpt from Administrative Record on Order No. R8-2009-0030, Part I].

[401] Exhibit Q (4), Consent Decree, *Defend the Bay Inc. v. Marcus*, 1997 WL 732512 (United States District Court, Northern District of California), page 2; see also, Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 461 [Order No. R8-2002-0010, Fact Sheet], which is a 1998 303(d) list identifying Newport Bay and San Diego Creek as impaired for metals, nutrients, pathogens, pesticides, priority organics, and sediment.

[402] Exhibit Q (4), Consent Decree, *Defend the Bay Inc. v. Marcus*, 1997 WL 732512 (United States District Court, Northern District of California), pages 2-3.

Upper Newport Bay

Metals: Cadmium, Chromium, Copper, Lead, Mercury, Silver, Zinc

Priority Organics: Endosulfan, DDT

Lower Newport Bay

Metals: Arsenic, Cadmium, Copper, Lead, Selenium, Silver, Mercury, Zinc

Priority Organics: Chlordane, Endosulfan, DDT, PCBs, Toxaphene, Chlorpyrifos, Chlorbenside, Dieldrin.[403]

In accordance with paragraph 1 of the consent decree, on October 9, 1998, the Regional Board adopted Basin Plan Amendments establishing TMDLs for "nutrients" (nitrogen and phosphorus) and sediment in Newport Bay and San Diego Creek, which as explained further below, was implemented in the Third Term Permit (prior permit).[404]

On November 24, 1998, the Regional Board adopted a TMDL on fecal coliform bacteria in Newport Bay "to correct ongoing violations of existing Basin Plan water quality objectives for fecal coliform and the impairment of beneficial uses resulting therefrom."[405] On April 9, 1999, the Regional Board adopted a resolution amending its Basin Plan that incorporated the TMDL and an implementation schedule for fecal coliform bacteria in Newport Bay. That Resolution indicates that as a result of excessive levels of coliform, water-contact recreation and shellfish harvesting have been threatened in Newport Bay since the 1970s.[406] The implementation schedule provided for meeting the targets 14 and 20 years from the date of adoption, respectively, meaning 2013 and 2019, but called for the TMDLs to be "adjusted, as appropriate, based on completion of the studies [described in the Order]."[407] The TMDL and Resolution explain that urban runoff including stormwater, agricultural runoff, vessel waste, and natural sources contributed to the exceedance and, thus, the TMDL established WLAs and LAs to assure compliance with water contact recreation and shellfish standards by the compliance deadlines. The TMDL set numeric limits as follows:

> For the protection of the water contact recreation beneficial use, these objectives specify that Newport Bay shall not contain fecal coliform in excess of a 5 sample/month log mean of 200 organisms/100 mL, and not more than 10% of the samples exceed 400 organisms/100 mL for any 30- day period. To protect the shellfish harvesting beneficial use, the Basin Plan also requires that Newport Bay

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[403] Exhibit Q (4), Consent Decree, *Defend the Bay Inc. v. Marcus*, 1997 WL 732512 (United States District Court, Northern District of California), page 3.

[404] Exhibit Q (22), Regional Board Resolution 98-101, Sediment TMDL, page 4; Exhibit Q (35), State Water Resources Control Board Approval of Resolution 98-100, Nutrients TMDL.

[405] Exhibit Q (36), TMDL for Fecal Coliform Bacteria in Newport Bay, November 24, 1998, page 6.

[406] Exhibit Q (23), Regional Board Resolution No. 99-10, Fecal Coliform TMDL, page 4.

[407] Exhibit Q (23), Regional Board Resolution No. 99-10, Fecal Coliform TMDL, page 6.

> have a median fecal coliform density of less than 14 MPN (most probable number)/100 mL, and not more than 10% of the samples exceed 43 MPN/100 mL.[408]

The TMDL further required the County of Orange, the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Lake Forest and Newport Beach, and the agricultural operators in the Newport Bay watershed to propose plans and reports, including those for routine monitoring to determine compliance with the bacterial quality objectives in Newport Bay, reports to identify and characterize fecal coliform inputs, and a plan for evaluation and source identification monitoring and studies to determine compliance with the WLAs and LAs.[409] The TMDL was approved by OAL and codified at California Code of Regulations, title 23, section 3975, which states the following:

> Regional Board Resolution No. 99-10, adopted on April 9, 1999, by the Santa Ana Regional Water Quality Control Board (SARWQCB), modified the regulatory provisions of the Water Quality Control Plan for the Santa Ana Region by establishing a Total Maximum Daily Load (TMDL) for fecal coliform bacteria discharged in the Newport Bay. The TMDL addresses impairment due to pathogens in Newport Bay in a prioritized, phased approach. Compliance with objectives to protect water contact recreation are to be achieved no later than 14 years after State approval of the TMDL; objectives to protect shellfish harvesting are to be met no later than 20 years after State approval of the TMDL. Concentration-based allocations are assigned for vessel waste, urban runoff, natural sources, and agricultural runoff. The TMDL will be reevaluated and revised, if appropriate, based on monitoring results and relevant studies. These studies include source identification and characterization, development of a bacterial water quality model, a shellfish harvesting and a water contact recreation beneficial use assessment, and evaluation of a vessel waste program. Revision of the TMDL would be considered through the Basin Plan amendment process. Upon completion and consideration of studies and any appropriate Basin Plan amendment, the Regional Board shall adopt a plan for achieving the targets. This plan will use a phased compliance approach with priorities and compliance schedules assigned based on the use and area affected and the nature, magnitude, and timing of violations. The fecal coliform TMDL contains an implicitly incorporated margin of safety by not applying adjustments for dilution, natural die-off, and tidal flushing.[410]

In 2001-2002, U.S. EPA and Regional Board staff evaluated the more recent water quality data to help determine whether TMDLs were needed for each of the toxic pollutants identified in the

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[408] Exhibit Q (36), TMDL for Fecal Coliform Bacteria in Newport Bay, November 24, 1998, page 36; Exhibit Q (23), Regional Board Resolution No. 99-10, Fecal Coliform TMDL, page 1.

[409] Exhibit Q (23), Regional Board Resolution No. 99-10, Fecal Coliform TMDL, pages 12-18.

[410] California Code of Regulations, title 23, section 3975 (Register 99, No. 52).

consent decree. They determined that TMDLs were not needed for arsenic, which was originally identified in the consent decree for Lower Newport Bay.[411]

In 2002, the Regional Board adopted the prior permit, which noted that:

> TMDLs have been developed for sediment and nutrients for San Diego Creek and Newport Bay. A fecal coliform TMDL for Newport Bay has also been established. The WLAs from these TMDLs are included in this order. Dischargers to these water bodies are currently implementing these TMDLs. This order specifies the WLAs and includes requirements for the implementation of these WLAs.[412]

The prior permit required permittees to meet the seasonal target load allocations for nutrients (nitrogen, phosphorus) and sediment for the Newport Bay Watershed by implementing BMPs, in accordance with the 1998 TMDLs adopted by the Regional Board.[413] The prior permit further required that the permittees revise Appendix N of their Drainage Area Management Plan (DAMP) to include implementation measures and schedules for further studies related to the fecal coliform TMDL.[414] The Fact Sheet to the 2002 permit further indicates that "[o]ther TMDLs for the Newport Bay watershed are being developed by the Regional Board (for diazinon, chlorpyrifos and selenium) and U.S. EPA (for legacy pesticides and other metals)."[415] Thus, the prior permit states that the order "may be reopened to include additional requirements based on new or revised TMDLs."[416] In addition, the prior permit:

- Prohibits illegal and illicit non-stormwater discharges from entering into the MS4.[417]
- Prohibits the discharge of stormwater from the MS4 to waters of the United States containing pollutants that have not been reduced to the MEP.[418]

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[411] Exhibit Q (38), U.S. EPA, Newport Bay Toxics TMDLs, June 14, 2002, page 4 [Administrative Record on Order No. R8-2009-0030, Part I, page 1217].

[412] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 402-403 [Order No. R8-2002-0010, Finding 19].

[413] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 430-432 [Order No. R8-2002-0010].

[414] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 432 [Order No. R8-2002-0010].

[415] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 460 [Order No. R8-2002-0010, Fact Sheet].

[416] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 432 [Order No. R8-2002-0010].

[417] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 412 [Order No. R8-2002-0010].

[418] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 412 [Order No. R8-2002-0010].

- Requires that discharges from the MS4 shall not cause or contribute to exceedances of receiving water quality standards (designated beneficial uses and water quality objectives).[419]
- Requires that the DAMP (Drainage Area Management Plan) and its components be designed to achieve compliance with receiving water limitations through timely implementation of control measures and BMPs.[420]
- Requires that if permittees continue to cause or contribute to an exceedance of water quality standards, the permittees shall promptly notify and submit a report to the Regional Board that describes the BMPs currently implemented and the additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance of water quality standards. Once approved, permittees shall revise the DAMP and monitoring program to incorporate the approved modified BMPs, and implement the revised program.[421]
- Requires permittees to demonstrate compliance with the discharge limitations and receiving water limitations through timely implementation of their DAMP. "The DAMP, as included in the Report of Waste Discharge, including any approved amendments thereto, is hereby made an enforceable component of this order." In addition to the requirements in the prior permit and the DAMP, "each permittee shall implement additional controls, if any are necessary, to reduce the discharge of pollutants in storm water to the maximum extent practicable as required by this Order."[422]
- Requires permittees to comply with the Monitoring and Reporting Program (R8-2002-0010), which is attached to the prior permit.[423] This program required permittees to conduct several types of monitoring, including mass emissions monitoring, in order to determine if the MS4 is contributing to exceedances of water quality objectives or beneficial uses by comparing the results to the CTR, the Basin Plan, the Ocean Plan, or other relevant standards.[424] Dry and wet weather monitoring was required and all samples had to be tested for metals, pesticides, "and constituents which are known to

[419] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 413 [Order No. R8-2002-0010].

[420] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 413 [Order No. R8-2002-0010].

[421] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 414 [Order No. R8-2002-0010].

[422] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 433 [Order No. R8-2002-0010].

[423] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 434, 441 et seq. [Order No. R8-2002-0010].

[424] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 442 [Order No. R8-2002-0010].

have contributed to impairment of local receiving waters."[425] Monitoring along the coastline and at a minimum of six inland water bodies was also required to test for fecal coliform.[426] The permittees were also required to develop "strategies to evaluate the impact of storm water and non-storm water runoff on all impairments within the Newport Bay watershed and other 303(d) listed bodies."[427] The Monitoring and Reporting Program further states that "[s]ince the 303(d) listing is dynamic, with new waterbodies and new impairments being identified over time, the permittees shall revise their monitoring plan to incorporate new information as it becomes available."[428]

After the 2002 prior permit was adopted, and due to the State failing to timely do so, U.S. EPA, on June 14, 2002, promulgated TMDLs for selenium, metals (cadmium, chromium, copper, lead, mercury, and zinc), and organochlorine compounds (i.e., diazinon and chlorpyrifos, DDT, chlordane, dieldrin, toxaphene, and polychlorinated biphenyls (PCBs)) in Newport Bay and San Diego Creek, as follows:[429]

> EPA is establishing TMDLs for several toxic pollutants which are exceeding applicable State water quality standards: selenium; several heavy metals; and several organic chemicals including modern pesticides (i.e., diazinon and chlorpyrifos) and legacy pesticides (DDT, Chlordane etc.) and polychlorinated biphenyls (PCBs). The pesticide diazinon is being addressed by these TMDLs because the State found that it is associated with significant water toxicity in San Diego Creek and concluded that it should be addressed by EPA concurrent with the similar pesticide chlorpyrifos, which is addressed by the consent decree. These TMDLs are being developed for specific water bodies in the Newport Bay watershed for which available data indicate that water quality is impaired. Table 1-1 lists the specific water bodies and associated pollutants for which TMDLs are being established.

Water Body (Type)	Element/Metal	Organic Compound
San Diego Creek (freshwater)	Cd, Cu, Pb, Se, Zn	Chlorpyrifos, Diazinon, Chlordane, Dieldrin, DDT, PCBs, Toxaphene

[425] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 443 [Order No. R8-2002-0010].

[426] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 444 [Order No. R8-2002-0010].

[427] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 445 [Order No. R8-2002-0010].

[428] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 445 [Order No. R8-2002-0010].

[429] Exhibit Q (38), U.S. EPA, Newport Bay Toxics TMDLs, June 14, 2002 [Administrative Record on Order No. R8-2009-0030, Part I, pages 1213-1515]; Exhibit Q (4), Consent Decree, *Defend the Bay Inc. v. Marcus*, 1997 WL 732512 (United States District Court, Northern District of California), page 3.

Upper Newport Bay (saltwater)	Cd, Cu, Pb, Se, Zn	Chlorpyrifos, Chlordane, DDT, PCBs
Lower Newport Bay (saltwater)	Cd, Pb, Se, Zn	Chlordane, Dieldrin, DDT, PCBs
Rhine Channel, within Lower Newport Bay (saltwater)	Cu, Pb, Se, Zn, Cr, Hg	Chlordane, Dieldrin, DDT, PCBs

Table 1-1 Toxic pollutants per waterbody requiring TMDL development.[430]

The U.S. EPA TMDLs did not include an implementation plan, but did provide recommendations for implementation.[431]

In 2003, the Regional Board adopted a Basin Plan Amendment that incorporated the WLAs identified in the U.S. EPA-promulgated diazinon and chlorpyrifos TMDLs, and an implementation plan to reduce the usage of diazinon and chlorpyrifos by over 90 percent.[432] The Resolution states that before the adoption of the TMDL, the Basin Plan specified narrative water quality objectives for San Diego Creek and Upper Newport Bay "that toxic substances shall not cause adverse impacts on beneficial uses," but that narrative objective was not being achieved.[433] Investigations conducted in San Diego Creek demonstrated that persistent aquatic toxicity is caused largely by diazinon and chlorpyrifos.[434] The Basin Plan provided specific implementation tasks, which included the requirement for the permittees and the agricultural operators in Newport Bay watershed to propose a plan for routine monitoring by January 30, 2004, to determine compliance with the diazinon and chlorpyrifos TMDLs.[435] The 2003 Resolution also states:

> The TMDL [for Diazinon and Chlorpyrifos] allocates wasteloads to all dischargers in the watershed. Since the TMDL is concentration-based, these wasteloads are concentration limits. The concentration limits *will be incorporated into existing and future discharge permits* in the watershed.

[430] Exhibit Q (38), U.S. EPA, Newport Bay Toxics TMDLs, June 14, 2002, pages 3-4 [Administrative Record on Order No. R8-2009-0030, Part I].

[431] Exhibit Q (38), U.S. EPA, Newport Bay Toxics TMDLs, June 14, 2002, pages 71-76 [Administrative Record on Order No. R8-2009-0030, Part I].

[432] Exhibit Q (24), Regional Board Resolution No. R8-2003-0039, Diazinon and Chlorpyrifos TMDL, pages 2, 8.

[433] Exhibit Q (24), Regional Board Resolution No. R8-2003-0039, Diazinon and Chlorpyrifos TMDL page 1.

[434] Exhibit Q (24), Regional Board Resolution No. R8-2003-0039, Diazinon and Chlorpyrifos TMDL page 1.

[435] Exhibit Q (24), Regional Board Resolution No. R8-2003-0039, Diazinon and Chlorpyrifos TMDL pages 8-9.

> Compliance schedules would be included in permits only if they are demonstrated to be necessary.[436]

The TMDL "Task Schedule" in the 2003 Basin Plan Amendment states that beginning some time in 2005, "but no later than December 1, 2007," "…NPDES permits will be revised to include the TMDL allocations, as appropriate."[437] The TMDL for diazinon and chlorpyrifos was approved by OAL and codified at California Code of Regulations, title 23, section 3977, which states in relevant part the following:

> Regional Board Resolution No. R8-2003-0039, adopted on April 4, 2003 by the Santa Ana Regional Water Quality Control Board, modified the regulatory provisions of the Water Quality Control Plan [Basin Plan] for the Santa Ana Region by establishing a TMDL for chlorpyrifos in Upper Newport Bay and diazinon and chlorpyrifos in San Diego Creek.
>
> The amendment addresses water quality impairment due to aquatic toxicity caused by the presence of diazinon and chlorpyrifos in runoff to San Diego Creek and Upper Newport Bay. The amendment establishes load and wasteload allocations for San Diego Creek as listed in Table 1.
>
> [¶] [Table 1 omitted.]
>
> The amendment includes an implementation plan that specifies completion of the following four tasks by stakeholders in the watershed and by the Regional Board:
>
> (1) Revision of WDR and NPDES discharge permits to include the TMDL allocations;
>
> (2) Implementation of monitoring program by the stakeholders in the watershed for diazinon and chlorpyrifos;
>
> (3) Development of a pesticide runoff management plan by the Regional Board and the stakeholders in the watershed;
>
> (4) Special Studies: the Regional Board will lead studies into the significance of chlorpyrifos atmospheric deposition for Upper Newport Bay and the adequacy of the freshwater allocations for San Diego Creek to protect Upper Newport Bay.[438]

It is not evident from the record of this Test Claim or from other documents publicly available that any of the other 2002 U.S. EPA-promulgated TMDLs for metals, selenium, or

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[436] Exhibit Q (24), Regional Board Resolution No. R8-2003-0039, Diazinon and Chlorpyrifos TMDL page 8 (emphasis added).

[437] Exhibit Q (24), Regional Board Resolution No R8-2003-0039, Diazinon and Chlorpyrifos TMDL page 8.

[438] California Code of Regulations, title 23, section 3977 (Register 2004, No. 2.)

organochlorine compounds were incorporated in Basin Plan Amendments prior to the adoption of the test claim permit.[439]

In 2007, the Regional Board adopted TMDLs and an implementation plan for organochlorine compounds, which were intended to supplant the 2002 U.S. EPA TMDLs.[440] The Regional Board had "reassessed USEPA's impairment decisions" and found no impairment due to chlordane or PCBs in San Diego Creek, and therefore issued only "Informational TMDLs" for those pollutants, which are not enforceable.[441] The 2007 Order also eliminated the limitation on dieldrin for Lower Newport Bay, finding no impairment anywhere in the watershed.[442] That 2007 Order was never submitted to the State Board or the OAL for approval, however, and was later supplanted by a Basin Plan Amendment adopted in 2011 (after the test claim permit was adopted), which found no impairment for dieldrin in any of the waters, and no impairment for chlordane or PCBs in San Diego Creek and its tributaries.[443] The 2011 Basin Plan Amendment for organochlorine compounds also provided for WLAs approximately three times higher than the U.S. EPA's 2002 Toxics TMDLs, based on subsequent information.[444] That 2011 Resolution was ultimately approved by the State Board on October 16, 2012, and by OAL on July 26, 2013.[445]

Also in 2007, U.S. EPA adopted TMDLs for metals and selenium in the San Gabriel River and its tributaries.[446] The San Gabriel River watershed lies largely within the jurisdiction of the Los Angeles Regional Board, except the upper portion of Coyote Creek and a portion of the

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[439] However, the 2007 Regional Board-adopted organochlorine compounds TMDLs were adopted within a 2011 Basin Plan Amendment, and the 2002 U.S. EPA-promulgated selenium TMDL has been replaced by a Regional Board-adopted Basin Plan Amendment as of August 4, 2017. (See Exhibit Q (31), Santa Ana Basin Plan, Chapter 5, revised February 2016. pp. 166-199 [citing Resolution R8-2011-0037]; Exhibit Q (28), Regional Board Resolution R8-2017-0014, Selenium TMDL.)

[440] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 340-341 [Order No. R8-2009-0030].

[441] See Exhibit Q (29), Regional Board Staff Report on Organochlorine Compounds Revised TMDLs, July 15, 2011, page 2.

[442] See Exhibit Q (25), Regional Board Resolution No. R8-2007-0024, Attachment 2, Organochlorine Compounds TMDLs, page 1.

[443] Exhibit Q (27), Regional Board Resolution No. R8-2011-0037, Attachment 2, Organochlorine Compounds TMDLs, page 1.

[444] Exhibit Q (27), Regional Board Resolution No. R8-2011-0037, Attachment 2, Organochlorine Compounds TMDLs, page 7.

[445] Exhibit Q (33), State Water Resources Control Board Resolution No. 2012-0051, Organochlorine Compounds (OAL Approval 07/26/2013; Cal. Code Regs., tit. 23, § 3979.6 [Register 2013, No. 30]).

[446] Exhibit Q (39), U.S. EPA TMDLs for Metals and Selenium, San Gabriel River and Impaired Tributaries, March 26, 2007.

watershed draining to the estuary lie within the jurisdiction of the Santa Ana Regional Board.[447] Segments of the San Gabriel River and its tributaries exceed water quality objectives for copper, lead, selenium, and zinc.[448] Wet and dry weather numeric targets were established for metals and are based on CTR criteria:

> Numeric targets for the TMDL are based on CTR criteria. As stated in section 2.1.2, CTR criteria are expressed as dissolved metals because dissolved metals more closely approximate the bioavailable fraction of metals in the water column. However, sources of metals loading to the watershed include metals associated with particulate matter. Once discharged to the river, particulate metals could dissolve, causing the criteria to be exceeded. The TMDL targets, and resulting waste load allocations, are expressed in terms of total recoverable metals to address the potential for dissolution of particulate metals in the receiving water. Attainment of numeric targets expressed as total recoverable metals will ensure attainment of the dissolved CTR criteria.
>
> Separate numeric targets are developed for dry and wet weather because hardness values and the fractionation between total recoverable and dissolved metals vary between dry and wet weather. As in other TMDLs (e.g., the Los Angeles River Metals TMDL), the distinction between wet and dry weather is operationally defined as the 90th percentile flow in the river. Because separate wet-weather TMDLs are required for San Gabriel Reach 2 and Coyote Creek, the distinction between wet- and dry-weather is separately defined for these two reaches.[449]

WLAs for metals and selenium were established for Publicly Owned Treatment Works (POTWs), municipal stormwater, industrial stormwater, and construction stormwater in the 2007 TMDL.[450]

c. The Test Claim Permit imposes requirements to comply with the WLAs identified in the TMDLs for metals, organochlorine compounds, selenium, fecal coliform, and pesticides in San Diego Creek, Lower Newport Bay, San Gabriel River, and Coyote Creek.

Finding 31 of the test claim permit indicates that the permittees have conducted urban runoff and receiving water monitoring as required under the first, second and third term permits. The third term, or prior permit, required monitoring using a wide array of methods to assess impacts caused by pollutants in urban runoff. In addition to monitoring the water column under wet and

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[447] Exhibit Q (39), U.S. EPA TMDLs for Metals and Selenium, San Gabriel River and Impaired Tributaries, March 26, 2007, page 25.

[448] Exhibit Q (39), U.S. EPA TMDLs for Metals and Selenium, San Gabriel River and Impaired Tributaries, March 26, 2007, page 6.

[449] Exhibit Q (39), U.S. EPA TMDLs for Metals and Selenium, San Gabriel River and Impaired Tributaries, March 26, 2007, page 22.

[450] Exhibit Q (39), U.S. EPA TMDLs for Metals and Selenium, San Gabriel River and Impaired Tributaries, March 26, 2007, pages 43-49.

dry weather conditions, the permittees were required to monitor water column toxicity, mass emission rates, estuaries and wetlands including sediment and benthic monitoring, bacteriological/pathogen concentrations and bioassessment analysis. These monitoring programs indicated exceedances of the Basin Plan and the CTR for a number of constituents, and exceedances of the public health and safety standards for total coliform, fecal coliform, and Enterococci bacteria in receiving waters adjacent to public beaches and public water contact sport areas.[451, 452]

Finding 52 explains that the test claim permit requires the permittees to comply with the TMDL WLAs by implementing necessary BMPs and continued monitoring:

> This order requires permittees to comply with established TMDL wasteload allocations specified for urban runoff and/or storm water by implementing the necessary BMPs. NPDES regulations at 40 CFR 122.44(d)(vii)(B) require that permits be consistent with wasteload allocations approved by U.S. EPA. This order requires the permittees to comply with the urban runoff/storm water wasteload allocations specified in (1) Regional Board-adopted and USEPA approved TMDLs (including TMDLs for nutrients, fecal coliform, diazinon and chlorpyrifos); (2) Regional Board-adopted TMDLs that are approved by the State Board and State Office of Administrative Law and that are thereby effective (approval of organochlorine compounds TMDLs by the State is pending); and, (3) USEPA-promulgated TMDLs (including toxics TMDLs for the Newport watershed). Continuation of water quality/biota monitoring and analysis of the data are essential to better understand the impacts of storm water discharges on the water quality of the receiving waters, impairment caused by urban runoff,

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[451] See Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 281-282 [Order No. R8-2009-0030].

[452] For example, AB 411 violations, which refers to Health and Safety Code section 115880 (Stats. 1997, ch. 765 (AB 411)). Section 115880 required the Department of Health Services (DHS) to amend its regulations to (1) require the testing of waters adjacent to public beaches for microbiological contaminants, including total coliform, fecal coliform, and Enterococci bacteria; (2) require weekly monitoring of beaches with storm drains that discharge during dry weather and visited by more than 50,000 people per year from April 1 through October 31 by the local health officer or environmental health agency; and (3) establish protective minimum standards for total coliform, fecal coliform and Enterococci bacteria. DHS adopted the minimum protective bacteriological standards for receiving waters adjacent to public beaches and public water contact sport areas, which are codified at California Code of Regulations, title 17, section 7958 (Register 99, Nos. 31, 49). The regulations further provide that "[i]n order to determine that the bacteriological standards specified in 7958 above are being met in a water-contact sports area designated by a Regional Water Quality Control Board in waters affected by a waste discharge, water samples shall be collected at such sampling stations and at such frequencies as may be specified by said board in its waste discharge requirements." (Cal. Code Regs., tit. 17, § 7959(a).)

compliance with the wasteload allocations and for assessing the effectiveness of control measures.[453]

Sections XVIII.B.1 through 3 summarize the background of the TMDLs adopted and that the Regional Board is working on replacement TMDLs. These sections do not impose any activities on the claimants.[454]

Section XVIII.B.4 of the test claim permit and Tables 1 A/B/C, 2 A/B/C/D, and 3 require permittees in the Newport Watershed to comply with the WLAs established in the 2002 U.S. EPA-promulgated TMDLs for metals (cadmium, copper, lead, zinc, mercury, and chromium) in San Diego Creek, Newport Bay, and the Rhine Channel; and organochlorine compounds (DDT, chlordane, dieldrin, PCBs, and toxaphene) in San Diego Creek, Upper and Lower Newport Bay, and the Rhine Channel.[455] Section XVIII.B.4 also addresses compliance with the WLAs adopted by U.S. EPA for selenium in San Diego Creek,[456] and since section XVIII.8 also addresses that TMDL, those two sections are also discussed further below. These U.S. EPA-promulgated TMDLs were established pursuant to the consent decree in 2002, after the prior permit was approved, and were technical TMDLs that did not include implementation plans or compliance schedules.[457] The test claim permit now requires permittees to comply with the WLAs in those TMDLs by monitoring within the receiving waters, and reevaluating current BMPs or proposing new BMPs if an exceedance occurs, as described in section XVIII.E. of the permit. Section XVIII.E. ("Compliance Determination with TMDLs and BMP Implementation") states the following:

1. Except for sediment TMDLs in San Diego Creek and Newport Bay, compliance determinations shall be based on monitoring within the receiving waters. For sediment TMDLs, compliance determination shall be based on monitoring in the Creek.
2. Based on the TMDLs, effluent limits have been specified to ensure consistency with the wasteload allocations. If the monitoring results indicate an exceedance of the

[453] See Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 281-282 [Order No. R8-2009-0030].

[454] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 338 [Order No. R8-2009-0030].

[455] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 338-340 [Order No. R8-2009-0030]; see also, Exhibit Q (38), U.S. EPA, Newport Bay Toxics TMDLs, June 14, 2002, pages 38 ,42, 47, 49, 59-60, 67 [Administrative Record on Order No. R8-2009-0030, Part I], which identify the WLAs for urban runoff for these pollutants that were incorporated into Section XVIII.B.4, Tables 1 A/B/C, 2 A/B/C/D, and 3, of the test claim permit.

[456] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 340 [Order No. R8-2009-0030].

[457] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 338 [Order No. R8-2009-0030].

> wasteload allocations, the permittees shall reevaluate the current control measures and propose additional BMPs/control measures. This reevaluation and proposal for revisions to the current BMPs/control measures (revised plan) shall be submitted to the Executive Officer within 12 months of determining that an exceedance has occurred. Upon approval, the permittees shall immediately start implementation of the revised plan.[458]

The Monitoring and Reporting program is attached to the test claim permit and states that "permittees *shall continue* to implement the 2003 Monitoring Program. The permittees shall review the 2003 Monitoring Program on an annual basis and determine the need for any modifications to the program."[459]

Sections XVIII.B.7 and XVIII.B.8 discuss the transition from the U.S. EPA TMDLs for metals and selenium to replacement TMDLs developed by the Regional Board. Section XVIII.B.7 states that Regional Board staff, in collaboration with stakeholders, is developing TMDLs for metals and selenium, which will include implementation plans and monitoring programs, that are intended to replace the U.S. EPA TMDLs. Section XVIII.B.7 then requires permittees within the Newport Bay watershed to "continue to participate in the development and implementation of these TMDLs."[460] The plain language that the permittees rely on, "shall continue," suggests that participating in the development and implementation of the TMDLs for metals and selenium is not new. The claimants are already required to provide their monitoring and reporting data under the prior permit and under federal regulations generally.[461] To the extent "continue to participate" means continue to provide monitoring data so that accurate and attainable TMDLs and WLAs can be developed, the test claim permit does not impose a new requirement. Moreover, the claimants' narrative does not illuminate exactly what "participate in the development" of TMDLs means, if anything more. Accordingly, there is no evidence in the record or the permit that the activity of continuing to "participate in the development and implementation" of TMDLs for metals and selenium to supplant the 2002 U.S. EPA-promulgated TMDLs constitutes a new requirement of the test claim permit.

Section XVIII.B.8 addresses selenium in the San Diego Creek and Newport Bay, and states the following:

> Selenium is a naturally occurring element in the soil but its presence in surface waters in the Newport Bay watershed is largely the result of changes in the hydrologic regime as the result of extensive drainage modifications. Selenium-

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[458] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 349 (Order No. R8-2009-0030].

[459] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 358-359 [Order No. R8-2009-0030]. (Emphasis added.)

[460] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 342 [Order No. R8-2009-0030].

[461] See, e.g., Code of Federal Regulations, title 40, sections 122.44, 122.48; Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 446 [Order No. R8-2002-0010].

> laden shallow and rising groundwater enters the storm water conveyance systems and flows into San Diego Creek and its tributaries. Groundwater inputs are the major source of selenium in San Diego Creek and Newport Bay. Currently, there are no economically and technically feasible treatment technique to remove selenium from the water column. The stakeholders have initiated pilot studies to determine the most efficient methods for treatment and removal of selenium. Through the Nitrogen and Selenium Management Program, the watershed stakeholders are developing comprehensive selenium (and nitrogen) management plans, which are expected to form the basis, at least in part, for the selenium implementation plan (and a revised nutrient TMDL implementation plan). A collaborative watershed approach to implement the nitrogen and selenium TMDLs for San Diego Creek and Newport Bay is expected. *A proposed Cooperative Watershed Program that will fulfill applicable requirements of the selenium TMDL implementation plan must be submitted by the stakeholders covered by this order within 24 months of adoption of this order, or one month after approval of the selenium TMDLs by OAL, whichever is later*. The Program must be implemented upon Regional Board approval. *As long as the stakeholders are participating in and implementing the approved Cooperative Watershed Program, they will not be in violation of this order with respect to the nitrogen and selenium TMDLs for San Diego Creek and Newport Bay*. In the event that any of the stakeholders does not participate, or if the collaborative approach is not approved or fails to achieve the TMDLs, the Regional Board will exercise its option to issue individual waste discharge requirements or waivers of waste discharge requirements.[462]

As indicated above, U.S. EPA adopted a selenium TMDL in 2002 for San Diego Creek and Newport Bay based on the selenium criterion specified in the CTR, but that TMDL did not have an implementation plan.[463] On December 20, 2004, before the test claim permit was adopted, the Regional Board adopted Order No. R8-2004-0021, which is a general waste discharge permit that specifies interim performance-based and final numeric effluent limitations for selenium for short-term groundwater-related discharges in response to the 2002 U.S. EPA TMDL.[464] Dischargers subject to Order R8-2004-0021 agreed to form a working group, and committed to fund and participate in a work plan.[465] The claimants' 2006 ROWD confirms that the Nitrogen and Selenium Management Program was launched by a group of watershed stakeholders in response to Order No. R8-2004-0021.[466] The work plan was intended to develop a

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[462] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 342-343 [Order No. R8-2009-0030], emphasis added.

[463] Exhibit Q (38), U.S. EPA, Newport Bay Toxics TMDLs, June 14, 2002, pages 3-4 [Administrative Record on Order No. R8-2009-0030, Part I]; Exhibit Q (11), Fact Sheet and Order No. R8-2004-0021, December 20, 2004, page 7.

[464] Exhibit Q (11), Fact Sheet and Order No. R8-2004-0021, December 20, 2004, page 8.

[465] Exhibit Q (11), Fact Sheet and Order No. R8-2004-0021, December 20, 2004, page 9.

[466] Exhibit Q (18), Orange County ROWD, July 21, 2006, pages 169-170.

comprehensive understanding of and management plan for selenium to assist the Regional Board in developing an implementation plan for the TMDL as follows:

> As discussed above, certain of dischargers subject to this Order have agreed to form a Working Group and have committed to fund and participate in a Work Plan. The Work Plan is intended to develop a comprehensive understanding of and management plan for selenium, as well as nitrogen, discharges to surface waters within the Newport Bay watershed that result from groundwater-related inflows. This work is expected to assist the Regional Board in refining the TMDL and in developing a TMDL implementation plan by identifying appropriate selenium load and wasteload allocations for the several categories of groundwater-related inflows, and by developing a recommended offset, trading or mitigation program. As such, the Work Plan goes beyond issues related to the short-term groundwater-related discharges regulated by this Order. In addition, the Working Group has committed to perform studies necessary to develop a selenium site-specific objective, if appropriate, based on the outcome of other Work Plan elements.[467]

The components of the Work Plan "committed to by the Working Group" include monitoring, assessment of selenium sources in the watershed, and identifying and assessing selenium BMPs.[468]

Finding 46 of the test claim permit then states that "It is expected that the implementation plan will include the opportunity for an adaptive, collaborative approach by stakeholders in the watershed to address selenium and nitrogen in comprehensive and efficient fashion. This approach may be implemented through a cooperative agreement or, alternatively, through waste discharge requirements or a conditional waiver of waste discharge requirements."[469]

The claimants argue that section XVIII.B.8 requires the permittees to establish a "Cooperative Watershed Program" to meet the requirements of a Selenium TMDL Implementation Plan, and thereafter implement the cooperative program.[470]

The Water Boards contend that the development and implementation of the Cooperative Watershed Program specified in section XVIII.B.8 does not impose any requirements on the permittees, but rather was included as an option at the urging of the claimants "to effectively deploy limited resources during the development and approval of replacement TMDLs for

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[467] Exhibit Q (11), Fact Sheet and Order No. R8-2004-0021, December 20, 2004, page 9; see also, Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 286 [Order No. R8-2009-0030, Finding 46].

[468] Exhibit Q (11), Fact Sheet and Order No. R8-2004-0021, December 20, 2004, page 9.

[469] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 286 [Order No. R8-2009-0030, Finding 46].

[470] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 78.

nitrogen and selenium."[471] The Water Boards point to earlier comments filed by the Regional Board, which state:

> . . . . during permit development, some Claimants voiced concerns that if the Permit incorporated the WLAs for selenium contained in the U.S. EPA as numeric effluent limitations, Claimants would be required to develop and implement control strategies for complying with the WLAs and at the same time continue to participate in the development of a replacement TMDL that would likely contain very different BMPs. [Footnote omitted.] The Santa Ana Water Board found this argument persuasive in terms of allocating funds most efficiently for water quality-related activities. Accordingly, the Santa Ana Water Board expressly did not require compliance with the existing WLAs for selenium as numeric effluent limitations as long as the Claimants were "participating in and implementing the approved Cooperative Watershed Program." This is an example of a particularly complex impairment problem, which is why the U.S. EPA 2010 Memorandum recognized the need for flexibility in establishing permit requirements derived from WLAs. Claimants now challenge this provision, included at Claimants' urging, that allows them to continue efforts to develop a TMDL to replace the 2002 U.S. EPA TMDL without simultaneously expending funds to implement BMPs that will likely become obsolete if/when a revised TMDL is adopted and approved by U.S. EPA. [Footnote omitted.][472]

The Water Boards also contend that "because claimants can choose whether to comply with the Section XVIII.B.4 WLAs through the process set forth in Section XVIII.E or through participation in the development of the Cooperative Watershed Program, the test claim permit does not require compliance solely in accordance with Section XVIII.E. Therefore, the test claim permit contains no requirement to comply with the WLAs in accordance with Section XVIII.E. of the test claim permit."[473]

The Water Boards' comments suggest that the claimants specifically requested a cooperative program when implementing the selenium TMDL and, thus, section XVIII.B.8 should be denied. Government Code section 17556(a) does provide an exception to a finding of costs mandated by the state and, thus, no reimbursement under article XIII B, section 6 is required when "[t]he claim is submitted by a local agency or school district that requests or previously requested legislative authority for that local agency or school district to implement the program specified in the statute, and that statute imposes costs upon that local agency or school district requesting the legislative authority." However, section 17556(a) requires evidence in the record of that request in the form of "[a] resolution from the governing body or a letter from a delegated representative of the governing body of a local agency or school district that requests authorization for that local agency or school district to implement a given program shall constitute a request within the

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[471] Exhibit N, Water Boards' Comments on the Draft Proposed Decision, filed November 4, 2022, page 2.

[472] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 31.

[473] Exhibit N, Water Boards' Comments on the Draft Proposed Decision, filed November 4, 2022, page 4.

meaning of this subdivision." The Water Boards have not submitted any evidence as required by Government Code section 17556(a) to support the assertion that the claimants requested the activities required by section XVIII.B.8.

Rather, the record shows that the claimants agreed to form a working group under Order R8-2004-0021 (the general waste discharge permit that specifies interim performance-based and final numeric effluent limitations for selenium for short-term groundwater-related discharges in response to the 2002 U.S. EPA TMDL), and develop a work plan to collect data, assess selenium sources and selenium BMPs that could be applied in the watershed to help the Regional Board develop an implementation plan for the selenium TMDL.[474] The work plan was approved by the executive officer of the Regional Board before the adoption of the test claim permit.[475] Although the information gathered from the work plan may lay the foundation for developing a "Cooperative Watershed Program," there's no discussion in the claimants' ROWD or in Order No. R8-2004-0021 that the claimants would develop a "Cooperative Watershed Program."

The plain language of the test claim permit shows that the requirement to submit the Cooperative Watershed Program is not optional, as suggested by the Water Boards: "A proposed Cooperative Watershed Program that will fulfill applicable requirements of the selenium TMDL implementation plan *must* be submitted by the stakeholders covered by this order within 24 months of adoption of this order, or one month after approval of the selenium TMDLs by OAL, whichever is later."[476]

Pursuant to Water Code section 15, the word "shall" imposes a mandatory duty, while the word "may" is permissive. The Water Code does not define "must." However, the primary rule of statutory interpretation is that the words are to be given their plain and ordinary meaning.

> In the first step of the interpretive process we look to the words of the statute themselves. [Citations.] The Legislature's chosen language is the most reliable indicator of its intent because ' "it is the language of the statute itself that has successfully braved the legislative gauntlet." ' [Citation.] We give the words of the statute 'a plain and commonsense meaning' unless the statute specifically defines the words to give them a special meaning.[477]

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[474] Exhibit Q (11), Fact Sheet and Order No. R8-2004-0021, December 20, 2004, page 9; Exhibit Q (18), Orange County ROWD, July 21, 2006, page 170.

[475] Exhibit Q (18), Orange County ROWD, July 21, 2006, pages 169-170 ("Over the five year permit, the NSMP working group is implementing a comprehensive work plan focusing on developing watershed based management strategies for groundwater of selenium and nitrogen in the Newport Bay watershed. This work plan has been approved by the Executive Officer of the Santa Ana Regional Board ….").

[476] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 342-343 [Order No. R8-2009-0030].

[477] *MacIsaac v. Waste Management Collection & Recycling, Inc.* (2005) 134 Cal.App.4th 1076, 1082–1083.

The courts have found that the ordinary meaning of 'shall' or 'must' is typically of mandatory effect and, thus, the word "must" in Section XVIII.B.8 indicates that the permit is imposing a requirement on the claimants to submit a proposed Cooperative Watershed Program.[478]

Thus, even if the claimants were working to develop a cooperative program before the adoption of the test claim permit, the requirement to submit the proposed "Cooperative Watershed Program" to the Regional Board is now required by the test claim permit. Pursuant to Government Code section 17565, "If a local agency or a school district, at its option, has been incurring costs which are subsequently mandated by the state, the state shall reimburse the local agency or school district for those costs incurred after the operative date of the mandate."

Before the Cooperative Watershed Program is approved, the claimants are required to comply with the WLAs in the U.S. EPA TMDL for selenium pursuant to Section XVIII.B.4 of the test claim permit by monitoring, reevaluating current BMPs or proposing new BMPs if an exceedance occurs in accordance with Section XVIII.E.[479]

Once the Cooperative Watershed Program is approved, Section XVIII.B.8 states, on the one hand, that the program "must be implemented" to avoid any "violation of this order with respect to the nitrogen and selenium TMDLs for San Diego Creek and Newport Bay," but also acknowledges that "[i]n the event that any of the stakeholders does not participate, . . . the Regional Board will exercise its option to issue individual waste discharge requirements or waivers of waste discharge requirements."[480] Based on this language, the claimants have the option of complying with the Cooperative Watershed Program, or performing the activities individually by complying with the WLAs for selenium pursuant to Section XVIII.B.4 of the test claim permit. The claimants are not required to incur costs to comply with both Section XVIII.B.4 and Section XVIII.B.8 after the Cooperative Watershed Program is approved. Although these two compliance choices are provided, the claimants do not have an option to do nothing. The permit clearly requires that they comply with one or the other in order to meet the water quality standards for selenium, and it is expected that the claimants would choose to implement and comply with the Cooperative Watershed Program since, as the Water Boards state, that option does "not require compliance with the existing WLAs for selenium as numeric effluent limitations as long as the Claimants were 'participating in and implementing the approved Cooperative Watershed Program.'"[481]

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[478] *California Teachers Assn v. Governing Board* (1977) 70 Cal.App.3d 833, 842.

[479] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 340 [Order No. R8-2009-0030].

[480] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 342-343 [Order No. R8-2009-0030].

[481] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 31; Exhibit N, Water Boards' Comments on the Draft Proposed Decision, filed November 4, 2022, page 2.

Under either option, the claimants (either through cooperative agreements, as indicated in the test claim permit findings,[482] or individually) are required to monitor for selenium, reevaluate current BMPs or propose new BMPs if an exceedance occurs. Federal law requires dischargers to monitor compliance with the effluent limitations identified in an NPDES permit and implement BMPs to control the pollutants.[483] In addition Section XVIII.E. of the test claim permit, which is expressly identified in Section XVIII.B.4, requires compliance with the TMDLs by monitoring, reevaluating current BMPs or proposing new BMPs if an exceedance occurs. Again, section XVIII.E. states the following:

> 1. Except for sediment TMDLs in San Diego Creek and Newport Bay, compliance determinations shall be based on monitoring within the receiving waters. For sediment TMDLs, compliance determination shall be based on monitoring in the Creek.
>
> 2. Based on the TMDLs, effluent limits have been specified to ensure consistency with the wasteload allocations. If the monitoring results indicate an exceedance of the wasteload allocations, the permittees shall reevaluate the current control measures and propose additional BMPs/control measures. This reevaluation and proposal for revisions to the current BMPs/control measures (revised plan) shall be submitted to the Executive Officer within 12 months of determining that an exceedance has occurred. Upon approval, the permittees shall immediately start implementation of the revised plan.[484]

Thus, the Commission finds that section XVIII.B.8 of test claim permit requires the following:

- Submit a proposed Cooperative Watershed Program that will fulfill applicable requirements of the selenium TMDL implementation plan within 24 months of adoption of this order, or one month after approval of the selenium TMDLs by OAL, whichever is later.
- Until the Cooperative Watershed Program is approved, the claimants are required to comply with the WLAs established by U.S. EPA's TMDL for selenium in Section

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[482] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 286 [Order No. R8-2009-0030, Finding 46].

[483] 33 United States Code section 1342(p)(3)(B)(iii) requires that permits for discharges from municipal storm sewers "shall require controls to reduce the discharge of pollutants to the maximum extent practicable, *including management practices*, control techniques and system, design and engineering methods, and such other provisions as . . . the State determines appropriate for the control of such pollutants." (Emphasis added.) See also, Code of Federal Regulations, title 40, sections 122.41 (conditions applicable to all permits, including monitoring and reporting requirements); section 122.44(i) (monitoring requirements to ensure compliance with permit limitations); section 122.48 (requirements for recording and reporting monitoring results); and Part 127 (electronic reporting).

[484] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 349 [Order No. R8-2009-0030].

XVIII.B.4 of the test claim permit, by monitoring, reevaluating current BMPs or proposing new BMPs if an exceedance occurs in accordance with section XVIII.E.

- After the Cooperative Watershed Program is approved, the claimants may either comply with the approved cooperative program or individually comply with the WLAs established by U.S. EPA's TMDL for selenium in Section XVIII.B.4 of the test claim permit, by monitoring, reevaluating current BMPs or proposing new BMPs if an exceedance.

Section XVIII.B.5 states that the Regional Board adopted TMDLs in 2007, including an implementation plan, to replace the U.S. EPA-promulgated TMDLs for organochlorine compounds, and that those TMDLs are pending approval by the State Board, OAL, and U.S. EPA.[485] The provision states that "*upon approval* of the Regional Board-adopted organochlorine compounds TMDLs by the State Board and the Office of Administrative Law, the permittees shall comply with both the EPA wasteload allocations specified in Tables 2 A/B/C/D [as required by Section XVIII.B.4] and the Regional Board wasteload allocations in Table 4, respectively."[486] In accordance with the Regional Board TMDLs, compliance with the allocations specified in Table 4 shall be achieved as soon as possible but no later than December 31, 2015.[487] "Upon approval of the Regional Board-approved organochlorine compounds TMDLs by EPA, the applicable wasteload allocations shall be those specified in Table 4."[488] Although Section XVIII.B.5 requires compliance with Table 4 (which incorporates WLAs from the 2007 Regional Board-adopted TMDLs), the plain language of the Section XVIII.B.5 indicates that the 2007 Regional Board-adopted TMDLs had not yet been submitted for approval by the State Board and OAL,[489] and therefore this provision had no force and effect at the time it was adopted. More importantly, the 2007 Regional Board-adopted TMDLs were in fact *never* submitted for approval as adopted; instead, they were amended in 2011, with WLAs that were substantially higher than those adopted in 2007 and stated in Table 4 of the test claim

[485] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 340-341 [Order No. R8-2009-0030]. See also, Exhibit Q (25), Regional Board Resolution No. R8-2007-0024, Attachment 2, Final Basin Plan Amendment, September 7, 2007.

[486] The 2007 Organochlorine Chlorine TMDLs were revised by Regional Board Resolution No. R8-2011-0037, and approved by the State Board on October 16, 2012 and by OAL on July 26, 2013. (Exhibit Q (26), Regional Board Resolution R8-2011-0037, Organochlorine Compounds TMDL.)

[487] A later Order, not at issue in this claim, Regional Board Resolution No. R8-2011-0037, extends the compliance deadline to seven years after OAL approval of the order. Exhibit Q (27), Regional Board Resolution No. R8-2011-0037, Attachment 2, Organochlorine Compounds TMDLs, page 6.

[488] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 340-341 [Order No. R8-2009-0030].

[489] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 340 [Order No. R8-2009-0030].

permit.[490] Accordingly, section XVIII.B.5, which requires compliance with Table 4 (which incorporates WLAs from the 2007 Regional Board-adopted TMDLs that were never submitted for approval), never took effect, and does not constitute a required activity.

Section XVIII.B.9 of the test claim permit requires permittees with discharges tributary to the San Gabriel River or Coyote Creek to develop and implement a "constituent-specific source control plan" for copper, lead, and zinc, including a monitoring program, until a TMDL implementation plan is developed.[491] The constituent specific source control plan "shall be designed to ensure compliance" with WLAs for dry and wet weather, which were derived from the 2007 San Gabriel River Metals TMDL jointly developed by the Los Angeles Water Board and U.S. EPA. The source control plan shall include a monitoring program and shall be completed within 12 months from the date of adoption of the test claim permit. In addition, as with all TMDLs in the permit except for sediment, the claimants are required to comply with Section XVIII.E. to reevaluate the current BMPS and control measures and propose additional BMPs, and if approved implement the revised BMP plan, if the monitoring results indicate an exceedance of the WLAs.

The constituent source control plan was not included in the record for this claim. However, the Orange County ROWD dated October 3, 2013, explains the County of Orange initiated the development of the "Source Control Plan and Monitoring Program" to comply with the metals TMDL, which was finalized in June 2010, and began monthly monitoring of six sites for total and dissolved metals on behalf of the watershed cities as follows:

> The San Gabriel River and Impaired Tributaries TMDLs (Coyote Creek Metals TMDL) established mass-based WLAs for total copper, total lead, and total zinc in wet weather and total copper in dry weather. The TMDLs were established for the Los Angeles Region since most of the San Gabriel River watershed lies within that region, but 54% of the Coyote Creek watershed lies in Orange County within the jurisdictional boundary of the Santa Ana Regional Board. While the Los Angeles Regional Board has no jurisdiction over portions of Coyote Creek within Orange County, the Santa Ana Regional Board deferred to the findings of Los Angeles Regional Board and incorporated some TMDL requirements into the Orange County MS4 Permit, particularly the development of a Source Control Plan and Monitoring Program (SCP).
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> In 2009, the County initiated SCP development. A Work Group was convened, consisting of the County and the cities of Anaheim, Brea, Buena Park, Cypress, Fullerton, La Habra, La Palma, Los Alamitos, Placentia, and Seal Beach

[490] Exhibit Q (27), Regional Board Resolution No. R8-2011-0037, Attachment 2, Organochlorine Compounds TMDLs, page 7 [Reflecting WLAs for DDT, Toxaphene, Chlordane and PCBs that are approximately three times greater (in grams per year) than those stated in Table 4 (Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 341 [Order No. R8-2009-0030)].

[491] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 343 [Order No. R8-2009-0030]. See also, Exhibit Q (39), U.S. EPA TMDLs for Metals and Selenium, San Gabriel River and Impaired Tributaries, March 27, 2007.

(watershed cities), to help guide SCP development. The SCP was finalized and approved by the Work Group in June 2010.

In July 2010, the County initiated monitoring activities under the SCP on behalf of the watershed cities. Since then, a total of six sites have been monitored monthly for total and dissolved metals, hardness, and other parameters. These sites will continue to be monitored to establish baseline water quality conditions in the watershed.[492] In addition, a 2021 newsletter issued by the Orange County Stormwater Program, indicates that the Source Control Plan found that vehicle brake pads were a significant source of copper, and that due to legislation that phased out copper in brake pads by 2025, and routine BMPs (street sweeping, catch basin cleaning), copper loading decreased during dry weather, along with wet weather lead and zinc levels.[493]

Section XVIII.C.1 requires permittees to comply with the WLAs for fecal coliform adopted in the 1999 TMDL in accordance with Tables 8A and 8B to protect waters designated for contract recreation and shellfish by the 2013 and 2019 deadlines, as follows:

> The Regional Board adopted a TMDL implementation plan for fecal coliform bacteria in Newport Bay that included a compliance date for water contact recreation standards no later than December 30, 2013 (within the permit term), and with shellfish standards no later than December 30, 2019. The allocations are shown in the tables below. The permittees shall comply with the wasteload allocations for urban runoff in Tables 8A and 8B in accordance with the deadlines in Tables 8A and 8B. Compliance determination for fecal coliform shall be based on monitoring conducted at representative sampling locations within San Diego Creek and Newport Bay. (The permittees may use the current sampling locations for compliance determination.)[494]

Table 8A identifies the WLA for urban runoff with respect to fecal coliform in waters designated for contact recreation, which must be achieved no later than December 30, 2013. The WLA for urban runoff is based on monitoring conducted at representative sampling locations, and limits fecal coliform as follows: five samples for any 30-day period shall not exceed a geometric mean of 200/100 ml of fecal coliform, and not more than 10 percent of the total samples during any 30-day period shall exceed 400/100 ml of fecal coliform. This is the same WLA identified in the fecal coliform TMDL.[495]

Table 8B identifies the WLA for urban runoff with respect to fecal coliform in waters designated for shellfish, which must be achieved no later than December 30, 2019. The WLA is based on

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[492] Exhibit Q (19), Orange County ROWD, October 3, 2013, page 134.

[493] Exhibit Q (46), *Watershed Appreciation - Get to Know the Coyote Creek Watershed*, Orange County Stormwater Program, dated September 30, 2021, page 6, https://h2oc.org/blog/coyote-creek/ (accessed November 20, 2022).

[494] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 344-345 [Order No. R8-2009-0030].

[495] Exhibit Q (36), TMDL for Fecal Coliform Bacteria in Newport Bay, November 24, 1998, page 36; Exhibit Q (23), Regional Board Resolution No. 99-10, Fecal Coliform TMDL, page 1.

monitoring conducted at representative sampling locations, and limits fecal coliform as follows: monthly median of less than 14 MPN/100 ml of fecal coliform, and not more than ten percent of the total samples to exceed 43 MPN/100 ml of fecal coliform. This is the same WLA identified in the fecal coliform TMDL.[496]

As explained in Section XVIII.E., compliance with the fecal coliform TMDL requires that if the monitoring results indicate an exceedance of the WLAs in Section XVIII.C.1, the permittees shall reevaluate current BMPs or propose new BMPs, and once a revised plan is approved, implement the revised plan.

And finally, Section XVIII.D.1 requires permittees in the Newport Bay Watershed to comply with the WLAs in Tables 9A and 9B for pesticides (diazinon and chlorpyrifos in San Diego Creek and chlorpyrifos in Upper Newport Bay).[497] As described above, the 2002 U.S. EPA-promulgated TMDLs included WLAs for diazinon and chlorpyrifos, and those TMDLs were incorporated in a 2003 Basin Plan Amendment, which stated that NPDES permits would be revised to include the WLAs for diazinon and chlorpyrifos.[498] Section XVIII.D.1 and Tables 9A and 9B now require permittees to comply with the WLAs in those TMDLs by monitoring conducted at the representative monitoring stations within San Diego Creek and Upper Newport Bay, and if the monitoring results indicate an exceedance of the WLAs in Section XVIII.D.1, the permittees shall reevaluate current BMPs or propose new BMPs, and once a revised plan is approved, implement the revised plan. "[T]he permittees may use current monitoring locations for this purpose."[499]

Accordingly, the test claim permit includes the following requirements to comply with the WLAs identified in the TMDLs:

- Comply with the WLAs specified in the 2002 U.S. EPA-promulgated TMDLs and in Tables 1 A/B/C, 2 A/B/C/D, and 3, for metals (cadmium, copper, lead, zinc, mercury, and chromium) in San Diego Creek, Newport Bay, and the Rhine Channel, and organochlorine compounds (DDT, chlordane, dieldrin, PCBs, and toxaphene) in San Diego Creek, Upper and Lower Newport Bay, and the Rhine Channel by monitoring within the receiving waters, and if the monitoring results indicate an exceedance of the WLAs, reevaluate current BMPs or propose new BMPs, and once a revised plan is approved, implement the revised plan. (Order No. R8-2009-0030, Section XVIII.B.4.)
- Submit a proposed Cooperative Watershed Program that will fulfill applicable requirements of the implementation plan for the 2002 U.S. EPA selenium TMDL within

[496] Exhibit Q (36), TMDL for Fecal Coliform Bacteria in Newport Bay, November 24, 1998, page 36; Exhibit Q (23), Regional Board Resolution No. 99-10, Fecal Coliform TMDL, page 1.

[497] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 346 [Order No. R8-2009-0030].

[498] Exhibit Q (24), Regional Board Resolution No. R8-2003-0039, Diazinon and Chlorpyrifos TMDL.

[499] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 346 [Order No. R8-2009-0030].

24 months of adoption of the test claim permit, or one month after approval of the Regional Board selenium TMDLs by OAL, whichever is later. (Order No. R8-2009-0030, Section XVIII.B.8.)

- Until the Cooperative Watershed Program is approved, comply with the WLAs in Section XVIII.B.4 of the test claim permit (2002 U.S. EPA TMDL on selenium), by monitoring, reevaluating current BMPs or proposing new BMPs if an exceedance occurs. (Order No. R8-2009-0030, Sections XVIII.B.4, XVIII.B.8.)
- After the Cooperative Watershed Program is approved, either comply with the approved cooperative program or individually comply with the WLAs established by the 2002 U.S. EPA TMDL for selenium in Section XVIII.B.4 of the test claim permit, by monitoring, reevaluating current BMPs or proposing new BMPs if an exceedance. (Order No. R8-2009-0030, Section XVIII.B.8.)
- Permittees with discharges tributary to the San Gabriel River or Coyote Creek shall develop and implement a "constituent-specific source control plan" for copper, lead, and zinc, including a monitoring program, until a TMDL implementation plan is developed. The constituent specific source control plan "shall be designed to ensure compliance" with WLAs for dry and wet weather runoff, which were derived from the 2007 San Gabriel River Metals TMDL jointly developed by the Los Angeles Water Board and U.S. EPA. The source control plan shall include a monitoring program and shall be completed within 12 months from the date of adoption of the test claim permit. If the monitoring results indicate an exceedance of the WLAs, reevaluate current BMPs or propose new BMPs, and once a revised plan is approved, implement the revised plan. (Order No. R8-2009-0030, Section XVIII.B.9.)
- Comply with the WLAs for urban runoff in Tables 8A and 8B for fecal coliform by December 30, 2013 to protect water contact recreation standards, and by December 30, 2019 to protect shellfish standards. Compliance shall be based on monitoring conducted at representative sampling locations within San Diego Creek and Newport Bay. The permittees may use the current sampling locations for compliance determination. If the monitoring results indicate an exceedance of the WLAs, reevaluate current BMPs or propose new BMPs, and once a revised plan is approved, implement the revised plan. (Order No. R8-2009-0030, Section XVIII.C.1.)
- Comply with the WLAs in Tables 9A and 9B for pesticides (diazinon and chlorpyrifos in San Diego Creek and chlorpyrifos in Upper Newport Bay) based on monitoring conducted at representative monitoring stations within San Diego Creek and Upper Newport Bay. Current monitoring locations may be used for this purpose. If the monitoring results indicate an exceedance of the WLAs, reevaluate current BMPs or propose new BMPs, and once a revised plan is approved, implement the revised plan. (Order No. R8-2009-0030, Section XVIII.D.1.)

Sections XVIII.B. 5 and 7 of the test claim permit do not impose any requirements.

d. The requirements in Sections XVIII.B.8 and XVIII.B.9 of the test claim permit to submit a Cooperative Watershed Program to comply with the TMDL for selenium and to develop a constituent-specific source control plan to comply with the San Gabriel metals TMDL constitute state-mandated new programs or higher levels of service. However, the remaining requirements in Sections XVIII.B.4, XVIII.B.8, XVIII.B.9, XVIII.C.1, and XVIII.D.1, to monitor, implement BMPs, and revise BMPs to comply with the WLAs in the TMDLs if an exceedance occurs, do not mandate a new program or higher level of service.

The claimants argue that the Regional Board was not mandated by federal law to impose numeric effluent limits on municipal stormwater permittees. Nor does federal law require municipal stormwater permittees to comply with water quality standards or WLAs to achieve those standards.[500] The claimants contend that in *Defenders of Wildlife v. Browner*, "the Ninth Circuit held that the US EPA (or a state implementing agency) has the authority to impose numeric effluent limits in MS4 Permits, but that Congress did not mandate effluent limits if the US EPA (or the state implementing agency) determined they were not necessary."[501] Claimants also cite to *Building Industry Association of San Diego County v. State Water Resources Control Board*, in which the court reasoned: "With respect to municipal storm water discharges, Congress clarified that the EPA has the authority to fashion NPDES permit requirements to meet water quality standards without specific numeric effluent limits and instead to impose 'controls to reduce the discharge of pollutants to the maximum extent practicable.'"[502] The claimants assert that "both EPA and the State Board have made clear that numeric effluent limits are not required to be complied with under federal law, and that an adaptive best management practices approach should instead be adhered to." Claimants state the following:

> The State Water Resources Control Board ("State Board") itself recognized that the requirement to comply with water quality standards in MS4 permits is imposed as a matter of discretion. In *In the Matter of Review of Order No. R4-2012-0175, NPDES Permit No. CAS004001, Waste Discharge Requirements For Municipal Separate Storm Sewer System (MS4) Discharges Within the Coastal Watersheds of Los Angeles County, Except Those Discharges Originating From the City of Long Beach MS4,* State Board Order WQ 2015-0075 (June 16, 2015) ("Order WQ 2015-0075"), which addressed the issue of whether an iterative, BMP-based process in an MS4 permit could constitute compliance with water

[500] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 9.

[501] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 65-66; Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 9-10 [referring to *Defenders of Wildlife v. Browner* (1999) 191 F.3d 1159, 1166-1167].

[502] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 66. *Building Industry Association of San Diego County v. State Water Resources Control Board* (2004) 124 Cal.App.4th 866, 874.

quality standards (there, compliance with receiving water limitations imposed in the 2012 Los Angeles MS4 permit), the State Board found that:

> In the context of NPDES permits for MS4s, however, the Clean Water Act does not explicitly reference the requirement to meet water quality standards. MS4 discharges must meet a technology-based standard of prohibiting non-stormwater discharges and reducing pollutants in the discharge to the Maximum Extent Practicable (MEP) in all cases, *but requiring strict compliance with water quality standards (e.g., by imposing numeric effluent limitations) is at the discretion of the permitting agency."*

Id. at 10 (emphasis added). [Fn. omitted.]

There is thus no federal mandate for MS4 permits to impose requirements for permittees to strictly comply with water quality standards. Any such requirements are imposed as a matter of discretion. *A fortiori,* this principle applies to the imposition of a permit requirement to comply with any vehicle to achieve those water quality standards, including TMDL WLAs, since WLAs are a component of TMDLs and are adopted "to attain and maintain the applicable narrative and numerical *WQS [water quality standard]."* [FN. omitted.] In other words, if federal law does not require MS4 discharges to comply with water quality standards, then federal law also does not require MS4 dischargers to comply with permit requirements, such as WLAs, designed to attain those standards. Any requirement to do so is imposed as a matter of discretion by the permitting authority, here the Santa Ana Water Board.[503]

The claimants further state that "Here, the Water Board had a true choice as to whether to require compliance with WLAs in the 2009 Permit. Neither the applicable federal statute, 33 U.S.C. § 1342(p)(3)(B), nor the regulation, 40 CFR § 122.44(d)(l), required this obligation to be imposed in an MS4 permit.[504]

The claimants also disagree that although the effluent limits in test claim permit are expressed numerically, they are complied with by way of an iterative BMP-based process, since the State Board, in Order WQ 2015-0075, made it clear that the iterative BMP-based approach set forth in Order 99-05 did *not* act as a "safe harbor" to protect MS4 permittees from enforcement if they were engaged in that approach.[505] "In other words, even if there is an iterative process, the numeric WLAs still drive that process. Thus, if there is an "exceedance" of the numeric WLA, this triggers both the need to "reevaluate" current control measures and to "propose" additional control measures. These requirements to reevaluate and propose additional control measures are, again, based on a

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[503] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 10.

[504] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 12.

[505] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 15.

discretionary decision by the Santa Ana Water Board to require compliance with numeric WLAs expressed in a TMDL."[506]

The claimants further believe that the compliance requirements are new. Citing to case law showing that TMDLs are simply planning tools that require additional action, the claimants contend that "[a]s a legal matter, incorporation of a TMDL constitutes the imposition of additional pollution control requirements for permittees."[507] The claimants then list the following projects completed to comply with the TMDLs, supported by a declaration from James Fortuna, Manager of the North Orange County Watershed Management Area for the Orange County Stormwater Program:

> For example, with respect to the TMDL and associated WLAs for selenium in San Diego Creek and Newport Bay, since the inception of the 2009 Permit, permittees have undertaken projects such as: the design and construction of the Peters Canyon Channel Water Capture and Reuse Pipeline, at an approximate cost of $7,728,000, and the Santa Ana-Delhi Diversion, at an approximate cost of $5,827,000 (Fortuna Decl., ¶ 6.b) as well as various investigations under the Nitrogen and Selenium Management Program Working Group, including a selenium water balance investigation (at an approximate cost of $160,000), studies for developing selenium site specific objectives (at an approximate cost of $349,000) and treatment technology evaluations and additional consultant support (at an approximate cost of $1,058,000) (Fortuna Decl., ¶ 6.c). In addition, the City of Newport Bay undertook restoration and maintenance efforts for Big Canyon Creek (at an approximate cost of $6,674,318 since 2009) and other selenium reduction efforts (at an approximate cost of$3,325,368 since 2009) (Fortuna Decl., ¶ 6.d).
>
> With respect to the TMDL and associated WLAs for organochlorine compounds ("OCs") in Newport Bay and San Diego Creek, permittees have undertaken the preparation of a WLA Evaluation Assessment required to be sent to the San Diego Water Board (at an approximate cost of $44,000) (Fortuna Decl., ¶ 7.b).
>
> With respect to the TMDL and related WLAs for metals in Coyote Creek for wet and dry weather, programs undertaken to comply include monitoring, laboratory and data management costs (at an approximate cost of $1,121,398 since 2011) (Fortuna Decl., ¶ 8.a).
>
> With respect to the TMDL and related WLAs for fecal coliform in Newport Bay, permittees have undertaken projects to complete engineering evaluations and analyses for new potential structural BMP projects at locations that drain into Newport Bay (at an approximate cost of $302,936) (Fortuna Decl., ¶ 9.a) and the development and implementation of a Source Investigation Design Study to

[506] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 16.

[507] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, pages 16-17.

> evaluate human sources of fecal contamination and conduct target source investigations (presently ongoing, at an approximate cost of $200,000 as of 2022) (Fortuna Decl., ¶ 9.b).
>
> In addition to these efforts, permittees, working through the Newport Bay TMDL Partners, which serves as a planning body to discuss additional studies, research, monitoring, reporting, development and revision of programs related to Newport Bay TMDLs generally in the Newport Bay watershed, spent approximately $5,332,960 in reimbursing the labor costs of Orange County personnel since 2009 (Fortuna Decl., ¶ 10).
>
> The Proposed Draft also concludes that the requirement "to monitor metals, pesticides, and constituents which are known to have contributed to impairment of local receiving waters was required by the prior permit and are not new." Proposed Draft at 127. However, as set forth in the Fortuna Declaration, monitoring requirements under the 2009 Permit were substantially upgraded from those under the 2002 Permit in several respects. That upgrading included, for the selenium TMDL, the monitoring of bird egg and fish tissue for the presence of selenium (at an approximately cost of $755,000) since 2010 (Fortuna Decl., ¶ 6.a). With respect to the OCs TMDL, additional monitoring costs were incurred related to the addition of three groups of compounds to the list of analytes (at an approximate cost of $816,264 since 2010) (Fortuna Decl., ¶ 7.a**)** and bird egg and fish tissue monitoring for OCs (at an approximate cost of $755,000 since 2010) (Fortuna Decl., ¶ 7.c).[508]

Finally, the claimants contend that the new requirements provide a governmental service to the public and are uniquely imposed on local government. "The 2009 Permit's requirement that the permittees implement programs to comply with the WLAs were not mere bans or limits on pollutions levels. They were obligations to implement programs to reduce pollutants to the levels set forth in the WLAs."[509] They further argue:

> The WLA requirements in the 2009 Permit are also unique to the MS4 permittees, because those specific WLAs are imposed *only* on local government entities, not private discharges. *See Dept. of Finance II [fn. omitted]* (where a permit applies by its terms only to the local government entities, obligations imposed by it are unique). Moreover, the activities compelled by the WLAs, reduction of pollutants

[508] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, pages 17-18, 111-115. It should be noted that several costs identified in the claimants' comments (those for special studies and a WLA Evaluation Assessment required to be sent to the San Diego Water Board), are not required by the sections of the permit pled.

[509] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 23.

in municipal stormwater discharges, lie solely within the purview of government agencies, not private parties.[510]

Accordingly, any numeric effluent limits derived from "WLAs contained within various TMDLs, go beyond federal law and represent unfunded State mandated programs subject to reimbursement under the California Constitution."[511]

The Cities of Dublin and Union City, and the Alameda Countywide Clean Water Program also urge the Commission to approve reimbursement for the TMDL provisions, arguing that the activities exceed federal law and were imposed at the State's discretion.[512]

The Regional Board contends that the TMDL provisions do not mandate a new program or higher level of service and asserts that "[i]n exercising this limited discretion, the Board simply translated the WLAs directly into effluent limits – so the effluent limitations were exactly the same as the WLAs."[513] And the Regional Board argues that "[a]lthough the [Test Claim] Permit incorporates the WLAs as numeric effluent limitations, the Permit actually requires an iterative BMP-based approach for compliance…"[514]

The Commission finds that the requirement in Sections XVIII.B.8 and XVIII.B.9 of the test claim permit imposes a state-mandated new program or higher level of service to develop and submit to the Regional Board a Cooperative Watershed Program for selenium as a means of implementing the TMDL, and a constituent-specific source control plan for metals to comply with the San Gabriel River metals TMDL. However, the remaining requirements in Sections XVIII.B.4, XVIII.B.8, XVIII.B.9, XVIII.C.1, and XVIII.D.1, to monitor, implement BMPs, and revise BMPs to comply with the WLAs in the TMDLs if an exceedance occurs, do not mandate a new program or higher level of service.

i. *Submission of the Cooperative Watershed Program for Selenium and development of a "constituent-specific source control plan" for copper, lead, and zinc are new, but implementing those plans and the remaining TMDL*

[510] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 21.

[511] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 76.

[512] Exhibit P, Cities of Dublin's and Union City's and Alameda Countywide Clean Water Program's Comments on the Draft Proposed Decision, filed November 4, 2022, pages 2-24.

[513] Exhibit I, Regional Board's Response to the Request for Additional Briefing, filed October 21, 2016, page 5.

[514] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 21.

requirements are not new and, thus, do not mandate a new program or higher level of service.

Courts have repeatedly held that local government entities are not entitled to reimbursement simply because a state law or order increases the costs of providing required services.[515] Rather, reimbursement under article XIII B, section 6 requires that all elements be met, including that the increased costs result from a new program or higher level of service mandated by the state on the local agency.[516] To determine whether a test claim statute imposes a new program or higher level of service, the required activities imposed by the state must be new and impose a program subject to article XIII B, section 6 (by carrying out the governmental function of providing a service to the public, or imposing unique requirements on the local agency).[517]

The requirement in Section XVIII.B.8, to submit a proposed Cooperative Watershed Program that will fulfill applicable requirements of the implementation plan for the 2002 U.S. EPA selenium TMDL within 24 months of adoption of the test claim permit, or one month after approval of the Regional Board selenium TMDLs by OAL, whichever is later, is new and was not required by prior law.

In addition, the requirement in Section XVIII.B.9, to develop a "constituent-specific source control plan" for copper, lead, and zinc, including a monitoring program, to ensure compliance with WLAs for dry and wet weather runoff, pursuant to the 2007 San Gabriel River Metals TMDL jointly developed by the Los Angeles Water Board and U.S. EPA is new. As indicated above, work on that that plan began in 2009 and the plan was adopted in 2010 and was not required by the prior permit.[518]

However, *implementation* of the Cooperative Watershed Program for selenium pursuant to Section XVIII.B.8 and the constituent-specific source control plan for the San Gabriel metals TMDL pursuant to Section XVIII.B.9, as well as compliance with the remaining TMDLs required by Sections XVIII.B.4, XVIII.C.1, and XVIII.D.1, are not new and do not impose a new program or higher level of service.

First, neither the WLAs for fecal coliform, nor the activities required to comply with the WLAs for fecal coliform in accordance with Section XVIII.C.1, are new. As indicated above, the fecal coliform TMDL became effective in 1999, and the test claim permit requires compliance with the WLAs for urban runoff for fecal coliform by December 30, 2013 to protect water contact recreation standards, and by December 30, 2019 to protect shellfish standards. Compliance shall be based on monitoring conducted at representative sampling locations within San Diego Creek

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[515] *San Diego Unified School Dist. v. Commission on State Mandates* (2004) 33 Cal. 4th 859, 877; *City of Richmond v. Commission on State Mandates* (1998) 64 Cal.App.4th 1190, 1196; *Lucia Mar Unified School Dist. v. Honig* (1988) 44 Cal.3d 830, 835.

[516] *Lucia Mar Unified School Dist. v. Honig* (1988) 44 Cal.3d 830, 835.

[517] *San Diego Unified School Dist. v. Commission on State Mandates* (2004) 33 Cal.4th 859, 874-875 (reaffirming the test set out in *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56).

[518] Exhibit Q (19), Orange County ROWD, October 3, 2013, page 134.

and Newport Bay, and the current sampling locations for compliance determination may be used. If the monitoring results indicate an exceedance of the WLAs, the claimants have to reevaluate current BMPs or propose new BMPs, and once a revised plan is approved, implement the revised plan.

The prior permit also identified the WLAs for fecal coliform and imposed the same requirements as the test claim permit. The following specific provisions from the prior permit relating to the fecal coliform TMDL state the following:

- "A fecal coliform TMDL for Newport Bay has also been established. The WLAs from these TMDLs are included in this order. Dischargers to these water bodies are currently implementing these TMDLs. This order specifies the WLAs and includes requirements for the implementation of these WLAs."[519]
- "The permittees shall revise Appendix N of the DAMP [Drainage Area Management Plan] to include *implementation measures* and schedules for further studies related to the TMDL for fecal coliform in Newport Bay, as set forth in the January 2000, March 2000 and April 2000 Newport Bay Fecal Coliform TMDL Technical Reports submitted by the permittees."[520]
- "The permittees shall . . . *monitor* representative areas along the Orange County coastline, as well as a minimum of six inland water bodies/channels, for total coliform, fecal coliform, and Enterococcus in order to determine the impacts of storm water and nonstorm water runoff on loss of beneficial uses to receiving waters. Inland monitoring stations shall be located to include channels/creeks which are currently impaired for pathogens."[521]

The DAMP (mentioned in the second bullet above) is the principal guidance document for urban stormwater management programs in Orange County, and was required to be developed by the claimants to reduce pollutants in urban stormwater runoff to the MEP by the first and second term permits.[522] The prior permit required the claimants to implement management programs, monitoring programs, implementation plans and all BMPs outlined in the DAMP within each respective jurisdiction, and take any other actions as may be necessary to meet the MEP standard.[523] If the permittees detected an exceedance of water quality standards, then the

[519] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 403 [Order No. R8-2002-0010, Finding 19].

[520] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 432 [Order No. R8-2002-0010, Section XVI.3].

[521] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, p. 444 [Order No. R8-2002-0010, Monitoring and Reporting Program, section III.D.1].

[522] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 403, 465 [Order No. R8-2002-0010, Finding 21, and Fact Sheet].

[523] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 410-411 [Order No. R8-2002-0010].

permittees "shall revise the DAMP and monitoring program to incorporate the approved modified BMPs that have been and will be implemented, the implementation schedule, and any additional monitoring required;" and "implement the revised DAMP and monitoring program in accordance with the approved schedule.[524] The prior permit also required the claimants to "demonstrate compliance with all the requirements in this order and specifically with Section III.2 Discharge Limitations and Section IV. Receiving Water Limitations, through timely implementation of their DAMP and any modifications, revisions, or amendments . . . determined by the permittee to be necessary to meet the requirements of this order."[525] The prior permit further required the claimants to "implement additional controls, if any are necessary, to reduce the discharge of pollutants in storm water to the maximum extent practicable as required by this Order."[526] The claimants' 2003 DAMP verifies that

> Once a water quality problem is identified, additional or new Best Management Practices (BMPs) are evaluated for implementation to determine their effectiveness and applicability. Since the field of stormwater management is a dynamic one, it is necessary for the Permittees to continue this systematic and iterative process of revising, adding or deleting BMPs as necessary in order to maintain a successful and responsive program.[527]

Thus, complying with the WLAs for fecal coliform pursuant to Section XVIII.C.1 of the test claim permit is not new, and does not impose a new program or higher level of service.

The remaining provisions in Sections XVIII.B.4, XVIII.B.8, XVIII.B.9, and XVIII.D.1 implement the TMDLs for metals, organochlorine compounds, other pesticides (diazinon and chlorpyrifos), and selenium, which were developed and adopted by U.S. EPA after the prior permit became effective and, thus, the WLAs were not expressly identified in the prior permit. Section XIIIV.B.8, regarding selenium, gives the claimants an option to not comply with the WLA established for selenium as long as they participate in the Cooperative Watershed Program to monitor and implement BMPs. If they choose not to comply with the Cooperative Watershed Program, then the claimants have to comply with the WLA for selenium by individually monitoring, implementing BMPs, and if the monitoring results indicate an exceedance of water quality standards, the claimants are required to reevaluate current BMPs or propose new BMPs, and once approved, implement the revised plan. Compliance with the metals, organochlorine compounds, and pesticides TMDLs also require monitoring, implementing BMPs, and revising

[524] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 414 [Order No. R8-2002-0010].

[525] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 433-434 [Order No. R8-2002-0010].

[526] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 433-434 [Order No. R8-2002-0010].

[527] Exhibit Q (5) DAMP July 1, 2003, Section 3 - Plan Development, page 1.

the BMPs if exceedances occur. The test claim permit expressly allows the claimants to continue to use "current monitoring locations . . . for this purpose."[528] These activities are not new.

TMDLs calculate the maximum amount of each constituent pollutant that the water body can assimilate and still meet water quality standards.[529] The TMDL and the WLAs allocated to dischargers are required by federal law to be established at levels necessary to meet water quality standards.[530] Meeting water quality standards for these pollutants is not new to the claimants; narrative and numeric criteria or objectives existed in the Basin Plan and the CTR before the TMDLs were adopted and compliance with those standards was required under the prior permit by performing the same activities as required by the test claim permit.

As indicated in the Background, the Basin Plan designates the beneficial uses of the waters of the Region and specifies water quality standards intended to protect those uses.[531] The Basin Plan included water quality objectives for enclosed bays and estuaries and for inland surface waters, which stated that "[t]oxic substances shall not be discharged at levels that will bioaccumulate in aquatic resources to levels which are harmful to human health," and that "concentrations of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses."[532] The Basin Plan also contained site-specific objectives for metals and numeric limits for metals in groundwater.[533] The prior permit acknowledged the Basin Plan in the Findings as follows: "A revised Water Quality Control Plan (Basin Plan) was adopted by the Regional Board and became effective on January 24, 1995. The Basin Plan contains water quality objectives and beneficial uses for water bodies in the Santa Ana Region."[534] The Findings in the test claim permit also indicate that the claimants' monitoring showed exceedances of numeric criteria established in the CTR, which "apply to waters identified in the Basin Plan chapters designating beneficial uses for waters within the region."[535] The prior permit noted that if not properly controlled, urban runoff

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[528] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 341, 345, 346, 358 [Order No. R8-2009-0030 ("The permittees shall continue to implement the 2003 Monitoring Program.")].

[529] United States Code, title 33, section 1313(d); Code of Federal Regulations, title 40, section 130.7(c).

[530] Code of Federal Regulations, title 40, section 130.2(h), 130.7(c)(1) ["TMDLs hall be established for all pollutants preventing or expected to prevent attainment of water quality standards"]; *Communities for a Better Environment v. State Water Resources Control Bd.* (2003) 109 Cal.App.4th 1089, 1095–1096.

[531] Federal Code of Regulations, title 40, section 130.7(b)(3).

[532] Exhibit Q (45), Water Quality Control Plan (1995 Basin Plan), pages 63, 70.

[533] Exhibit Q (45), Water Quality Control Plan (1995 Basin Plan), pages 67-68, 72.

[534] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 401 [Order No. R8-2002-0010, Finding 40].

[535] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 281-281 [Order No. R8-2009-0030, Finding 31]; Code of Federal Regulations, title 40, section 131.38(d)(1).

may contain elevated levels of pathogens, pesticides (including diazinon, chlorpyrifos), and heavy metals (cadmium, chromium, copper, lead, zinc), and storm water can carry these pollutants to the receiving waters and that "TMDLs for the Newport Bay watershed are being developed by the Regional Board (for diazinon, chlorpyrifos and selenium) and U.S. EPA (for legacy pesticides and other metals)"[536] The Findings in the prior permit further make clear that the receiving water limitations were included to "assure that the regulated discharge does not violate water quality standards established in the Basin Plan at the point of discharge to waters of the State."[537] Accordingly, the prior permit expressly:

- Required that discharges from the MS4 shall not cause or contribute to exceedances of receiving water quality standards (designated beneficial uses and water quality objectives).[538]
- Prohibited illegal and illicit non-stormwater discharges from entering into the MS4.[539]
- Required that the DAMP and its components be designed to achieve compliance with receiving water limitations through timely implementation of control measures and BMPs.[540]
- Required that if the claimants continue to cause or contribute to an exceedance of water quality standards, the claimants shall promptly notify and submit a report to the Regional Board that describes the BMPs currently implemented and the additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance of water quality standards. Once approved, the claimants shall revise the DAMP and monitoring program to incorporate the approved modified BMPs, and implement the revised program.[541]
- Required the claimants to demonstrate compliance with the discharge limitations and receiving water limitations through timely implementation of their DAMP. "The DAMP,

[536] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 408, 460 [Order No. R8-2002-0010].

[537] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 401 [Order No. R8-2002-0010, Finding 37].

[538] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 413 [Order No. R8-2002-0010].

[539] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 412 [Order No. R8-2002-0010].

[540] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 413 [Order No. R8-2002-0010].

[541] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 414 [Order No. R8-2002-0010].

as included in the Report of Waste Discharge, including any approved amendments thereto, is hereby made an enforceable component of this order." [542]

- Required the claimants to implement "additional controls, if any are necessary, to reduce the discharge of pollutants in storm water to the maximum extent practicable as required by this Order."[543]
- Required the claimants to comply with the Monitoring and Reporting Program (R8-2002-0010), which is attached to the Third Term Permit.[544] This program required the claimants to conduct several types of monitoring, including mass emissions monitoring, in order to determine if the MS4 is contributing to exceedances of water quality objectives or beneficial uses by comparing the results to the CTR, the Basin Plan, the Ocean Plan, or other relevant standards. Dry and wet weather monitoring was required and all samples had to be tested for metals, pesticides, "and constituents which are known to have contributed to impairment of local receiving waters."[545]

The Monitoring and Reporting Program further required the claimants to develop "strategies to evaluate the impact of storm water and non-storm water runoff on all impairments within the Newport Bay watershed and other 303(d) listed bodies."[546] In addition, the Monitoring and Reporting Program states that "[s]ince the 303(d) listing is dynamic, with new waterbodies and new impairments being identified over time, the permittees shall revise their monitoring plan to incorporate new information as it becomes available."[547]

The claimants' Water Quality Monitoring Program was included in their 2003 DAMP, and shows that the claimants monitored for metals, selenium, diazinon and chlorpyrifos, and other pesticides.[548]

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[542] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 433 [Order No. R8-2002-0010].

[543] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 433 [Order No. R8-2002-0010].

[544] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 434, 441 et seq. [Order No. R8-2002-0010].

[545] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 443 [Order No. R8-2002-0010].

[546] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 445 [Order No. R8-2002-0010].

[547] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 445 [Order No. R8-2002-0010].

[548] Exhibit Q (32), Santa Ana Region Water Quality Monitoring Program, February 2003, page 16, https://ocerws.ocpublicworks.com/sites/ocpwocerws/files/2021-03/2003_DAMP_Exhibit-11_III_SantaAnaWaterQualityMonitoring.pdf (accessed November 20, 2022). Section 1187.5(c) of the Commission's regulations provides that "Official notice may be taken in the manner and of the information described in Government Code Section 11515." Government Code section

Thus, despite the claimants' arguments to the contrary, the claimants were required by the prior permit to comply with water quality standards for these pollutants, by monitoring, implementing BMPs, and if the monitoring results indicate an exceedance of water quality standards, the claimants had to reevaluate current BMPs or propose new BMPs, and once approved, implement the revised plan. If water quality standards under the prior permit were not met, the claimants could have been held in violation of that permit.

As explained by the State Water Board, "[w]hen a discharger is shown to be causing or contributing to an exceedance of water quality standards, that discharger is in violation of the permit's receiving water limitations and potentially subject to enforcement by the water boards or through a citizen suit, regardless of whether or not the discharger is actively engaged in the iterative process," as follows:

> We have previously exercised the discretion we have under federal law in favor of requiring compliance with water quality standards, but have required less than strict compliance. We have directed, in precedential orders, that MS4 permits require discharges to be controlled so as not to cause or contribute to exceedances of water quality standards in receiving waters, [fn. omitted] but have prescribed an iterative process whereby an exceedance of a water quality standard triggers a process of BMP improvements. That iterative process involves reporting of the violation, submission of a report describing proposed improvements to BMPs expected to better meet water quality standards, and implementation of these new BMPs.[Fn. omitted.] The current language of the existing receiving waters limitations provisions was actually developed by US EPA when it vetoed two regional water board MS4 permits that utilized a prior version of the State Water Board's receiving water limitations provisions.[Fn. omitted.] In State Water Board Order WQ 99-05, we directed that all regional boards use USEPA's receiving water limitations provisions.
>
> There has been significant confusion within the regulated MS4 community regarding the relationship between the receiving water limitations and the iterative process, in part because the water boards have commonly directed dischargers to achieve compliance with water quality standards by improving control measures through the iterative process. *But the iterative process, as established in our precedential orders and as generally written into MS4 permits adopted by the water boards, does not provide a "safe harbor" to MS4 dischargers. When a discharger is shown to be causing or contributing to an exceedance of water*

11515 states the following: "In reaching a decision official notice may be taken, either before or after submission of the case for decision, of any generally accepted technical or scientific matter within the agency's special field, and of any fact which may be judicially noticed by the courts of this State. Parties present at the hearing shall be informed of the matters to be noticed, and those matters shall be noted in the record, referred to therein, or appended thereto. Any such party shall be given a reasonable opportunity on request to refute the officially noticed matters by evidence or by written or oral presentation of authority, the manner of such refutation to be determined by the agency."

> *quality standards, that discharger is in violation of the permit's receiving water limitations and potentially subject to enforcement by the water boards or through a citizen suit, regardless of whether or not the discharger is actively engaged in the iterative process*.[Fn. omitted.] The position that the receiving water limitations are independent from the provisions that establish the iterative process has been judicially upheld on several occasions.[549]

The courts have upheld this interpretation. In *Building Industry Association of San Diego County v. State Water Resources Control Board*,[550] the Building Industry Association (BIA) challenged a 2001 NPDES stormwater permit issued by the San Diego Regional Water Quality Control Board that expressly prohibited the discharge of pollutants that "cause or contribute to exceedances of receiving water quality objectives," and that "cause or contribute to the violation of water quality standards."[551] The permit contained an enforcement provision that required a municipality to report any violations or exceedances of an applicable water quality standard and describe a process for improvement and prevention of further violations.[552] The permit also contained a provision that "Nothing in this section shall prevent the Regional Water Board from enforcing any provision of this Order while the municipality prepares and implements the above report."[553] BIA, concerned that the permit provisions were too stringent, impossible to satisfy, and would result in all affected municipalities being in immediate violation of the permit and subject to substantial civil penalties because they were not then complying with applicable water quality standards, contended that under federal law, the MEP standard is the exclusive measure that may be applied to municipal storm sewer discharges. BIA asserted that the Regional Board may not require a municipality to comply with a state water quality standard if the required controls exceed the MEP standard.[554] The court, however, rejected BIA's interpretation, and held that the permit provisions requiring compliance with water quality standards are proper under federal law.[555]

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[549] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, pages 58-59 [State Water Board, Order WQ 2015-0075, emphasis added].

[550] *Building Industry Association of San Diego County v. State Water Resources Control Board* (2004) 124 Cal.App.4th 866.

[551] *Building Industry Association of San Diego County v. State Water Resources Control Board* (2004) 124 Cal.App.4th 866, 872, 876-877.

[552] *Building Industry Association of San Diego County v. State Water Resources Control Board* (2004) 124 Cal.App.4th 866, 877.

[553] *Building Industry Association of San Diego County v. State Water Resources Control Board* (2004) 124 Cal.App.4th 866, 877.

[554] *Building Industry Association of San Diego County v. State Water Resources Control Board* (2004) 124 Cal.App.4th 866, 872, 880, 890.

[555] *Building Industry Association of San Diego County v. State Water Resources Control Board* (2004) 124 Cal.App.4th 866, 880; see also, *Defenders of Wildlife v. Browner* (1999) 191 F.3d 1159, 1166-1167, which also held that the US EPA or the state administrator has the authority to

Similarly, in *Natural Resources Defense Council, Inc. v. County of Los Angeles*,[556] the permit prohibited discharges from the MS4 that cause or contribute to the violation of water quality standards and objectives contained in the Basin Plan, the CTR, the NTR, and other state or federal approved surface water quality plans. The permit further provided that the permittees comply with the discharge prohibitions with monitoring and timely implementation of control measures and other actions to reduce pollutants in their discharges.[557] Between 2002 and 2008, annual monitoring reports were published, and identified 140 separate exceedances of the water quality standards for aluminum, copper, cyanide, zinc, and fecal coliform bacteria in the Los Angeles and San Gabriel Rivers.[558] NRDC filed a lawsuit alleging that the permittees violated the Clean Water Act and its causes of actions were based on the following assertions: that the permit incorporated the water quality limits for each receiving water body; that the monitoring stations had recorded pollutant loads in the receiving water bodies that exceed those permitted under the relevant standards; that an exceedance constitutes non-compliance with the permit and, thereby, the CWA; and that the permittees were liable for these exceedances under the CWA.[559] The permittees argued they could not be held liable for violating the permit based solely on monitoring data because the monitoring was not designed or intended to measure compliance of any permittee, and the monitoring data cannot parse out precisely whose discharge contributed to any given exceedance because the monitoring stations manage samples downstream and not at the discharge points.[560] The court disagreed with the permittees, finding that:

> . . . . the data collected at the Monitoring Stations is intended to determine whether the Permittees are in compliance with the Permit. If the District's monitoring data shows that the level of pollutants in federally protected water bodies exceeds those allowed under the Permit, then, as a matter of permit construction, the monitoring data conclusively demonstrates that the County Defendants are not "in compliance" with the Permit conditions. Thus, the County Defendants are liable for Permit violations.[561]

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determine that ensuring strict compliance with state water quality standards is necessary to control pollutants.

[556] *Natural Resources Defense Council, Inc. v. County of Los Angeles* (2013) 725 F.3d 1194.

[557] *Natural Resources Defense Council, Inc. v. County of Los Angeles* (2013) 725 F.3d 1194, 1199.

[558] *Natural Resources Defense Council, Inc. v. County of Los Angeles* (2013) 725 F.3d 1194, 1199, 1200.

[559] *Natural Resources Defense Council, Inc. v. County of Los Angeles* (2013) 725 F.3d 1194, 1199, 1201.

[560] *Natural Resources Defense Council, Inc. v. County of Los Angeles* (2013) 725 F.3d 1194, 1199, 1204-1205.

[561] *Natural Resources Defense Council, Inc. v. County of Los Angeles* (2013) 725 F.3d 1194, 1199, 1206-1207.

The court also found that nothing in the MS4 permitting scheme of federal law relieves permittees of the obligation to monitor their compliance with the permit and the Clean Water Act.[562] "Because the results of County Defendants' pollution monitoring conclusively demonstrate that pollution levels in the Los Angeles and San Gabriel Rivers are in excess of those allowed under the Permit, the County Defendants are *liable* for Permit violations as a matter of law."[563] The court remanded the case to the lower courts to determine the appropriate remedy for the county's violations.[564]

And in *City of Rancho Cucamonga v. Regional Water Quality Control Bd.,* the court noted that there is no statutory right to a "safe harbor" provision to be included as the term of the permit:

> As it did repeatedly below, Rancho Cucamonga maintains the 2002 permit violates section 402(k) of the Clean Water Act (33 U.S.C. § 1342(k)), because the permit does not include "safe harbor" language, providing that, if a permittee is in full compliance with the terms and conditions of its permit, it cannot be found in violation of the Clean Water Act. (*U.S. Public Interest v. Atlantic Salmon* (1st Cir. 2003) 339 F.3d 23, 26; *EPA v. State Water Resources Control Board* (1976) 426 U.S. 200, 205 [48 L.Ed.2d 578, 96 S.Ct. 2022].) The trial court found there was no statutory right to a "safe harbor" provision to be included as the term of the permit. We agree.[565]

Moreover, existing federal law requires the claimants to monitor compliance with the effluent limitations identified in an NPDES permit, implement best management practices to control the pollutants, and report monitoring results at least once per year, or within 24 hours for any noncompliance which may endanger health or the environment.[566]

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[562] *Natural Resources Defense Council, Inc. v. County of Los Angeles* (2013) 725 F.3d 1194, 1199, 1209.

[563] *Natural Resources Defense Council, Inc. v. County of Los Angeles* (2013) 725 F.3d 1194, 1199, 1210, emphasis in original.

[564] *Natural Resources Defense Council, Inc. v. County of Los Angeles* (2013) 725 F.3d 1194, 1199, 1210.

[565] *City of Rancho Cucamonga v. Regional Water Quality Control Bd.* (2006) 135 Cal.App.4th 1377, 1388.

[566] 33 United States Code section 1342(p)(3)(B)(iii) requires that permits for discharges from municipal storm sewers "shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as . . . the State determines appropriate for the control of such pollutants." (Emphasis added.) See also, Code of Federal Regulations, title 40, sections 122.41 (conditions applicable to all permits, including monitoring and reporting requirements); section 122.44(i) (monitoring requirements to ensure compliance with permit limitations); section 122.48 (requirements for recording and reporting monitoring results); and Part 127 (electronic reporting).

Thus, the claimants were subject to water quality standards and criteria for these pollutants under the prior permit, and were required to perform the same activities under both state and federal law. Sections XVIII.B.4, XVIII.B.8, XVIII.B.9, and XVIII.D.1 of the test claim permit do not add any new requirements, or direct how the monitoring and BMP requirements have to be implemented.

Finally, compliance with WLAs for the San Gabriel metals TMDL is not unique to government. WLAs were also established for Publicly Owned Treatment Works (POTWs), and industrial stormwater and construction stormwater dischargers.[567] Thus, both public and private dischargers are required to comply with the WLAs in the San Gabriel metals TMDL and, thus, compliance with that TMDL is not unique to government. In this respect, the TMDL requirements are no different from the alleged mandated activities in *County of Los Angeles v. Department of Industrial Relations*.[568] In that case, the County sought reimbursement for complying with earthquake and fire safety regulations applicable to elevators in public buildings.[569] The "County acknowledges that the elevator safety regulations apply to all elevators, not just those which are publicly owned."[570] The court concluded that therefore the regulations "do not impose a 'unique requirement' on local government, [and] they do not meet the second definition of 'program' established by [County of Los Angeles I]."[571] Similarly, in *City of Richmond*, state law exempted public safety employees from the requirement to pay death benefits to a deceased employee's survivors under workers compensation statutes.[572] After the state repealed the exemption for public safety employees, the city sought reimbursement for the payment of workers compensation death benefits, which had to be made in addition to a PERS death benefit.[573] The court denied reimbursement, finding that the payment of death benefits under the workers compensation statutes was not unique to government. The court agreed with the Commission; "[t]hat [the test claim statute] affects only local government does not compel the conclusion that it imposes a unique requirement on local government."[574]

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[567] Exhibit Q (39), U.S. EPA TMDLs for Metals and Selenium, San Gabriel River and Impaired Tributaries, March 26, 2007, pages 43-49.

[568] *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538, 1545.

[569] *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538, 1545.

[570] *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538, 1545.

[571] *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538, 1545.

[572] *City of Richmond v. Commission on State Mandates* (1998) 64 Cal.App.4th 1190, 1193-1194.

[573] *City of Richmond v. Commission on State Mandates* (1998) 64 Cal.App.4th 1190, 1196.

[574] *City of Richmond v. Commission on State Mandates* (1998) 64 Cal.App.4th 1190, 1197.

Therefore, even if the claimants have incurred increased costs to comply with the TMDLs, the requirements in Sections XVIII.B.4, XVIII.B.8, XVIII.B.9, and XVIII.D.1 of the test claim permit are not new and do not impose a new program or higher level of service.

Accordingly, the Commission finds that Sections XVIII.B.8 and XVIII.B.9 impose the following new requirements:

- Submit a proposed Cooperative Watershed Program that will fulfill applicable requirements of the implementation plan for the 2002 U.S. EPA selenium TMDL within 24 months of adoption of the test claim permit, or one month after approval of the Regional Board selenium TMDLs by OAL, whichever is later. (Section XVIII.B.8.)
- Develop a "constituent-specific source control plan" for copper, lead, and zinc, including a monitoring program, to ensure compliance" with WLAs for dry and wet weather runoff, which were derived from the 2007 San Gabriel River Metals TMDL jointly developed by the Los Angeles Water Board and U.S. EPA. (Section XVIII.B.9.)

The remaining requirements in Sections XVIII.B.4, XVIII.B.8, XVIII.B.9, XVIII.C.1, and XVIII.D.1 of the test claim permit are denied.

ii. *Sections XVIII.B.8 and XVIII.B.9 of the test claim permit impose a state-mandated new program or higher level of service to submit a Cooperative Watershed Program for selenium and to develop a "constituent-specific source control plan" for metals in the San Gabriel River.*

As indicated above, the Commission finds that the following activities are new:

- Submit a proposed Cooperative Watershed Program that will fulfill applicable requirements of the implementation plan for the 2002 U.S. EPA selenium TMDL within 24 months of adoption of the test claim permit, or one month after approval of the Regional Board selenium TMDLs by OAL, whichever is later. (Section XVIII.B.8.)
- Develop a "constituent-specific source control plan" for copper, lead, and zinc, including a monitoring program, to ensure compliance" with WLAs for dry and wet weather runoff, which were derived from the 2007 San Gabriel River Metals TMDL jointly developed by the Los Angeles Water Board and U.S. EPA. (Section XVIII.B.9.)

The Commission further finds that these activities constitute a state-mandated new program or higher level of service.

In the 2016 decision in *Department of Finance v. Commission on State Mandates*, the California Supreme Court identified the following test to determine whether certain conditions imposed by an NPDES stormwater permit issued by the Los Angeles Regional Water Board were mandated by the state or the federal government:

> If federal law compels the state to impose, or itself imposes, a requirement, that requirement is a federal mandate. On the other hand, if federal law gives the state discretion whether to impose a particular implementing requirement, and the state

exercises its discretion to impose the requirement by virtue of a "true choice," the requirement is not federally mandated.[575]

Federal law does not mandate permittees to develop and submit a Cooperative Watershed Program to control selenium or to develop a constituent-specific source control plan for metals. Instead, federal law leaves some discretion to the permitting authority to structure effluent limits consistent with the assumptions and requirements of the applicable WLAs.[576] Additionally, federal law states that permits for MS4s may be issued on a system-wide basis, jurisdiction-wide basis, watershed basis or other appropriate basis, or may issue permits for individual discharges.[577] Thus, with respect to these activities, the Regional Board exercised its discretion to require the claimants to develop and submit to the Regional Board a program to control selenium based on a cooperative watershed approach, and a constituent-specific source control plan for metals. These new requirements are mandated by the state.

Moreover, the requirements impose a new program or higher level of service. A "new program or higher level of service" is defined as "programs that carry out the governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state."[578] These requirement are uniquely imposed on the local government claimants and, thus, they impose a new program or higher level of service.

Accordingly, the Commission finds that the requirements in Section XVIII.B.8 to submit a proposed Cooperative Watershed Program that will fulfill applicable requirements of the selenium TMDL implementation plan, and the requirement in Section XVIII.B.9 to develop a constituent-specific source plan in the San Gabriel River mandate a new program or higher level of service within the meaning of article XIII B, section 6 of the California Constitution.

2. Sections XII.B. – XII.E. of the Test Claim Permit, Which Address Low Impact Development (LID) and Hydromodification Prevention for New Development and Significant Redevelopment Projects, Including Municipal Projects, Do Not Impose a State-Mandated New Program or Higher Level of Service. However, Some of Regulatory Planning Requirements Imposed by These Sections Do Impose a State-Mandated New Program or Higher Level of Service.

The test claim permit seeks to reduce pollutants in the MS4 and in the receiving waters in part by requiring careful planning in the development and redevelopment of urban areas within the watershed. The Permit states that "[u]rban development increases impervious surfaces and storm water runoff volume and velocity and decreases vegetated, pervious surface areas available for

[575] *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 765.

[576] Code of Federal Regulations, title 40, section 122.44(d)(1)(vii).

[577] Code of Federal Regulations, title 40, section 122.26(a)(5).

[578] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56; *Department of Finance v. Commission on State Mandates* (2021) 59 Cal.App.5th 546, 557.

infiltration and evapotranspiration of storm water."[579] The Permit includes a finding that "USEPA has determined that LID [Low Impact Development]/green infrastructure can be a cost-effective and environmentally preferable approach for the control of storm water pollution and will minimize downstream impacts by limiting the effective impervious area of development."[580] The goal of the LID and hydromodification requirements is to restore and preserve the natural hydrologic cycles typically impacted by urbanization and development by requiring appropriate site design and source control BMPs in the approval of development and redevelopment projects: "Recent studies have indicated that low impact development (LID) is one of the most effective ways to minimize any adverse impacts on storm water runoff quality and quantity resulting from urban developments."[581]

The majority of activities in sections XII.B. through XII.E. of the Permit involve incorporating LID and hydromodification prevention considerations into the planning and site design of a new development or significant redevelopment projects. These activities and requirements are directed toward project proponents themselves, including private entities, based on the plain language. The claimants recognize that activities directed toward project proponents are not local government mandates, and accordingly, claimants allege the requirements of the test claim permit, sections XII.B. through XII.E., only "as they are applied to municipal projects."[582] The claimants allege that municipal projects include "municipal yards, recreation centers, civic centers, and road improvements."[583] In addition, claimants have alleged that "hospitals, laboratories, medical facilities, recreational facilities, airfields, parking lots, streets, roads, highways, and freeways" are projects that are "integral to the Permittee's function as municipal entities [sic]."[584] The claimants allege that the following are "mandated activities" set forth in sections XII.B. through XII.E. as they relate to "municipal projects that qualify as "priority development projects" under the 2009 Permit:"

- Develop a program to ensure that water quality protection, including LID principles and "Green Streets" requirements, are incorporated into priority development municipal projects, and implement the program within 18 months of adoption of the test claim permit.

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[579] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 289 [Order No. R8-2009-0030].

[580] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 290 [Order No. R8-2009-0030].

[581] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 387 [Order No. R8-2009-0030, Fact Sheet, Section IX.8].

[582] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 84.

[583] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 88.

[584] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 83.

- Incorporate EPA guidance, "Managing Wet Weather with Green Infrastructure: Green Streets" for all streets, roads, highways and freeways of 5,000 square feet or more of paved surface.
- Include BMPs for source control, pollution prevention, site design, LID implementation and structural treatment control BMPs.
- Infiltrate, harvest and re-use, evapotranspire, or bio-treat the 85th percentile storm event at completed project sites.
- Maintain or replicate the pre-development hydrologic regime through the use of design techniques that create a functionally equivalent post-development hydrologic regime through site preservation techniques and the use of integrated and distributed micro-scale storm water infiltration, retention, detention, evapotranspiration, filtration and treatment systems and water bodies.
- Limit disturbance of natural water bodies and drainage systems; conserve natural areas; preserve trees; minimize compaction of highly permeable soils; protect slopes and channels; and minimize impacts from stormwater and urban runoff on the biological integrity of natural drainage systems and water bodies.
- Minimize changes in hydrology and pollutant loading; require incorporation of controls, including structural and non-structural BMPs, to mitigate the projected increases in pollutant loads and flows; ensure that post-development runoff durations and volumes from a site have no significant adverse impact on downstream erosion and stream habitat; minimize the quantity of storm water directed to impermeable surfaces and the MS4s; minimize paving, minimize runoff by disconnecting roof leader and other impervious areas and directing the runoff to pervious or landscaped areas, minimize directly connected impervious areas; design impervious areas to drain to pervious areas; consider construction of parking lots and walkways with permeable materials; minimize pipes, culverts and engineered systems for stormwater conveyance thereby minimizing changes to time of concentration on site; utilize rain barrels and cisterns to collect and re-use rainwater; maximize the use of rain gardens and sidewalk storage; and maximize the percentage of permeable surfaces distributed throughout the site's landscape to allow more percolation of stormwater into the ground.
- Preserve wetlands, riparian corridors, vegetated buffer zones and establish reasonable limits on the clearing of vegetation from the project site.
- Use properly designed and well-maintained water quality wetlands, bio-retention areas, filter strips and bio-filtration swales; consider replacing curb gutters and conventional stormwater conveyance systems with bio-treatment systems, where such measures are likely to be effective and technically and economically feasible.
- Evaluate whether the project will adversely impact downstream erosion, sedimentation or stream habitat, and develop a hydrograph with pre and post-development time of concentration for a two-year frequency storm event. If the evaluation determines adverse impacts are likely to occur, implement additional site design controls, on-site

management controls, structural treatment controls or in-stream controls to mitigate the impacts.

- If site conditions do not permit infiltration, harvesting and re-use, evapotranspiration, or bio-treatment of the design capture at the project site as close to the source as possible, implement an in lieu/mitigation project, in additional to treatment in the stormwater on site.[585]

The claimants' comments on the Draft Proposed Decision further state that they are seeking reimbursement "to devise plans to incorporate best management practices ("BMPs") regarding Low Impact Development ("LID") and hydromodification principles ("HMP") into PDPs [priority development projects] (defined in Subsection XII.B.2), and then to implement those plans in municipal PDPs."[586] The claimants now identify the following planning requirements:

- Section XII.B.1 requires permittees to "annually review the existing structural treatment control and other BMPs for New Development and submit any changes for review and approval by the Executive Officer." The principal permittee is required to "revise the appropriate tables in the Water Quality Management Plan [for new development projects] with the latest information on BMPs and provide additional clarification regarding their effectiveness and applicability."
- Section XII.C.1 requires permittees to "update the model WQMP to incorporate LID principles (as per Section XII.C) and to address the impact of urbanization on downstream hydrology (as per Section XII.D)" and, within 12 months after the adoption of the 2009 Permit to submit the updated model WQMP "for review and approval by the Executive Officer."
- Section XII.D.5 (which relates to hydromodification) requires permittees to prepare a Watershed Master Plan for each of four identified watersheds, which is required to integrate water quality, hydromodification, water supply, and habitat. The Master Plan must include maps to identify areas susceptible to hydromodification and a hydromodification model to use as a tool for project developers to select storm water preventative and mitigative site BMPs. The permittees are required to submit the maps and a model plan for one watershed to the Santa Ana Water Board Executive Officer by May 22, 2011. Watershed Master Plans for the remaining watersheds were required to be completed 24 months after approval of the model Plan.
- Section XII.E.1 (relating to LID alternatives and in-lieu programs) requires the principal permittee, "in collaboration with the co-permittees," to develop technically-based

[585] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 88-90.

[586] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, pages 24-25.

> feasibility criteria for project evaluation to determine the feasibility of implementing LID BMPs and to submit that to the Executive Officer for approval.[587]

The claimants allege these activities were not addressed in the Draft Proposed Decision, but were properly pled since all of sections XII.B-XII.E were identified. The claimants point to the following sentences in their Test Claim narrative to support their position:

> The Proposed Draft, however, overlooks these requirements in its discussion of Section XII. Proposed Draft at 131-33. The Test Claim included all requirements in Sections XII.B-XII.E and Claimants' Narrative Statement discussed the costs of "developing a State-mandated program," development of a model WQMP, and other permittee-specific planning requirements. *See* Narrative Statement at 31-34. The "Actual Increased Costs of Mandate" section of the Narrative Statement further specifically discussed costs relating to these planning efforts. Narrative Statement at 37. Claimants' Rebuttal Narrative Statement also referenced the LID/HMP planning requirements: "The 2009 Permit requires the Permittees to take immediate actions related to low impact development and hydromodification. These steps include updating the model WQMP to incorporate low impact development and hydromodification principles and developing feasibility criteria for project evaluation to determine the feasibility of implementing low impact development BMPs." Claimants' Rebuttal Narrative Statement at 43.[588]

The Test Claim pleading does not clearly request reimbursement for the planning activities since the Test Claim stated that the claimants were seeking reimbursement for the LID and hydromodification activities as they relate to municipal projects only, and listed only the activities relating directly to the municipal projects as the "mandated activities" identified above. As the claimants admit, the LID and hydromodification planning activities benefit all project developers.[589]

However, the test claim form pleads sections XII.B-XII.E and review of the declarations filed with the Test Claim identifies a couple of the alleged planning activities as follows:

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[587] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, pages 24-25.

[588] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 25.

[589] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, pages 24-25 ["Proposed Sections XII.B through XII.E of the 2009 Permit require Claimants to devise plans to incorporate best management practices ("BMPs") regarding Low Impact Development ("LID") and hydromodification principles ("HMP") *into PDPs"*; "Section XII contains several distinct requirements for Claimants to develop planning documents to govern Water Quality Management Plans ("WQMPs") *used by PDP developers"*; "The [Watershed] Master Plan must include maps to identify areas susceptible to hydromodification and a hydromodification model *to use as a tool for project developers* to select storm water preventative and mitigative site BMPs." Emphasis added.]

- "The permittees . . . collectively retained a consultant team to assist with developing a public agency project element within the *Model* WQMP."
- "The permittees . . . shared the cost of a hydromodification susceptibility analysis of north Orange County's surface water drainage systems. Hydromodification susceptibility maps were prepared and language added to the model WQMP and Technical Guidance Document. The draft map data were verified using mapping and photography and updated as needed."[590]

Thus, this Decision will address the planning activities in sections XII.B.1, XII.C.1, XII.D.5, and XII.E.1. However, this Decision does *not* address other requirements that may be imposed on the principal permittee in section VII.B. since there is no discussion of these activities in the Test Claim and declarations as required by Government Code section 17553.

As described below, the Commission finds that *some* of planning activities required by sections XII.B. through XII.E. are new and that the new activities are mandated by the state, apply uniquely to local government, and therefore mandate a new program or higher level of service.

However, the LID and hydromodification requirements imposed on all priority development projects, including municipal projects, are not mandated by the state because they are triggered by a local decision to develop property, are not unique to government, and therefore do *not* mandate a new program or higher level of service.

a. Sections XII.C.1, XII.D.5, and XII.E.1 of the test claim permit impose new planning requirements that are constitute mandated new programs or higher levels of service. However, the planning requirements in section XII.B.1 are not new.

The specific requirements in sections XII.B.1, XII.C.1, XII.D.5, and XII.E.1 of the test claim permit related to LID and hydromodification planning are under the section of the permit titled "Water Quality Management Plan (WQMP) for Urban Runoff (for New Development/ Significant Redevelopment)," which states the following:

- Annually review the existing structural treatment control and other BMPs for New Developments and submit any changes for review and approval by the Executive Officer. Within 12 months of adoption of this order, the principal permittee shall revise the appropriate tables in the Water Quality Management Plan [WQMP] with the latest information on BMPs and provide additional clarification regarding their effectiveness and applicability. (Section VII.B.1.)[591]
- Within 12 months of adoption of this order, update the model WQMP to incorporate LID principles (as per Section XII.C) and address the impact of urbanization on downstream

[590] See for example, Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 110-111 [Declaration of Richard Boon, Chief of the Orange County Stormwater Program], 122-124 [Declaration of Keith Linker, Principal Civil Engineer for the City of Anaheim], 129-131 [Declaration of Brian M. Ingallinera, Environmental Services Manager for the City of Brea]. Emphasis added.

[591] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 319 [Order No. R8-2009-0030].

hydrology (as per Section XII.D), and submit a copy of the updated model WQMP shall for review and approval by the Executive Officer. (Section VII.C.1.)[592]

- Prepare a Watershed Master Plan to address the hydrologic conditions of concern on a watershed basis. The Watershed Master Plans shall integrate water quality, hydromodification, water supply, and habitat for the following watersheds: Coyote Creek-San Gabriel River; Anaheim Bay-Huntington Harbour; Santa Ana River; and Newport Bay-Newport Coast. Components of the Plan shall include: (1) maps to identify areas susceptible to hydromodification including downstream erosion, impacts on physical structure, impacts on riparian and aquatic habitats and areas where storm water and urban runoff infiltration is possible and appropriate; and, (2) a hydromodification model to make available as a tool to enable proponents of land development projects to readily select storm water preventive and mitigative site BMP measures. The maps shall be prepared within 12 months of the adoption of this order and a model Plan for one watershed shall be prepared within 24 months of adoption of this order. The model Watershed Master Plan shall be submitted to the Executive Officer for approval. Watershed Master Plans shall be completed for all watersheds 24 months after approval of the model Watershed Master Plan. The Watershed Master Plans shall be designed to meet applicable water quality standards and the Federal Clean Water Act. (Section XII.D.5.)[593]
- Within 12 months of adoption of this order, the principal permittee, in collaboration with the co-permittees, shall develop technically-based feasibility criteria for project evaluation to determine the feasibility of implementing LID BMPs (feasibility to be based in part, on the issues identified in Section XII.C). This plan shall be submitted to the Executive Officer for approval. Only those projects that have completed a vigorous feasibility analysis as per the criteria developed by the permittees and approved by the Executive Officer should be considered for alternatives and in-lieu programs. If a particular BMP is not technically feasible, other BMPs should be implemented to achieve the same level of compliance, or if the cost of BMP implementation greatly outweighs the pollution control benefits, a waiver of the BMPs may be granted. All requests for waivers, along with feasibility analysis including waiver justification documentation, must be submitted to the Executive Officer in writing, 30 days prior to permittee approval. (Section XII.E.1.)[594]

As indicated above, the claimants' declarations state they "retained a consultant team to assist with developing a public agency project element within the Model WQMP." The plain language of the test claim permit, however, does not require any specific project elements for public

[592] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 323 [Order No. R8-2009-0030].

[593] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 328 [Order No. R8-2009-0030].

[594] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 328-329 [Order No. R8-2009-0030].

agency projects to be included in the Model WQMP, nor does it require the hiring of a team of consultants. All of the LID and hydromodification planning activities described above relate directly to their regulatory duties over *all* new development and significant redevelopment projects.

i. *The requirements in sections XII.C.1, XII.D.5, and XII.E.1 are new, but the requirements in section XII.B.1 are not.*

Finding 63 of the test claim permit explains that the prior permit required the permittees to develop a model WQMP to be included in their Drainage Area Management Plan (DAMP) to provide a framework to incorporate watershed protection principles into the planning, construction, and post-construction phases of new and redevelopment projects (as defined). The model WQMP had to include site design, source control and treatment control elements to reduce the discharge of pollutants in urban runoff. Finding 63 states in relevant part the following:

> On October 5, 2000, the State Board adopted Order No. WQ-2000-11, which is a precedential order. Order No. WQ-2000-11 required that urban runoff generated by 85th percentile storm events from specific types of development categories should be infiltrated, filtered or treated. The essential elements of this precedential order were incorporated into the Region 8 Orange County third term permit. In accordance with the requirements specified in the third term permit, the permittees developed a model Water Quality Management Plan (WQMP) by amending their Drainage Area Management Plan (DAMP). The model WQMP provides a framework to incorporate watershed protection principles into the permittees planning, construction and post-construction phases of defined new and redevelopment projects. The model WQMP includes site design, source control and treatment control elements to reduce the discharge of pollutants in urban runoff. On September 26, 2003, the Regional Board approved the model WQMP. The permittees have incorporated provisions of the model WQMP into their LIPs. The permittees are requiring new developments and significant redevelopments to develop and implement appropriate project WQMPs.[595]

The prior permit required the following activities:

- Review planning procedures and CEQA review processes to ensure that "runoff-related issues are properly considered and addressed," and review and update their General Plan and Conditions of Approval to ensure that watershed protection principles are considered and incorporated. The review "should include," but not be limited to, the following considerations:
  a. Limit disturbance of natural water bodies and drainage systems; conserve natural areas; protect slopes and channels; and minimize impacts from storm water and urban runoff on the biological integrity of natural drainage systems and water bodies;

[595] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 291 [Order No. R8-2009-0030].

b. Minimize changes in hydrology and pollutant loading; require incorporation of controls, including structural and non-structural BMPs, to mitigate the projected increases in pollutant loads and flows; ensure that post-development runoff rates and velocities from a site have no significant adverse impact on downstream erosion and stream habitat; minimize the quantity of storm water directed to impermeable surfaces and the MS4s; and maximize the percentage of permeable surfaces to allow more percolation of storm water into the ground;

c. Preserve wetlands, riparian corridors, and buffer zones and establish reasonable limits on the clearing of vegetation from the project site;

d. Encourage the use of water quality wetlands, biofiltration swales, watershed-scale retrofits, etc., where such measures are likely to be effective and technically and economically feasible;

e. Provide for appropriate permanent measures to reduce storm water pollutant loads in storm water from the development site; and,

f. Establish development guidelines for areas particularly susceptible to erosion and sediment loss.[596]

- The permittees shall continue to implement the new development BMPs (DAMP, Appendix G).[597]
- Submit a revised WQMP for new development and significant development to include BMPs for source control, pollution prevention, and/or structural treatment BMPs.[598] "The goal of the WQMP is to develop and implement practicable programs and policies to minimize the effects of urbanization on site hydrology, urban runoff flow rates or velocities and pollutant loads."[599]
- During the time that the WQMP is being revised, the permittees shall implement their existing requirements for new development (Appendix G of the DAMP). If the Executive Officer does not approve the revised WQMP by October 1, 2003, as meeting the goals of reducing post development runoff and ensuring that the discharge of any pollutant does not cause an exceedance of receiving water quality objectives, then structural BMPs shall be required for all new and significant redevelopment. Minimum structural BMPs must

[596] Exhibit A, Test Claim, filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 423-424 [Order No. R8-2002-0010].

[597] Exhibit A, Test Claim, filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 424 [Order No. R8-2002-0010].

[598] Exhibit A, Test Claim, filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 424-425 [Order No. R8-2002-0010].

[599] Exhibit A, Test Claim, filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 425 [Order No. R8-2002-0010].

be sized to infiltrate, filter, or treat urban runoff generated by 85th percentile storm events.[600]

- By July 1 of each year, the permittees shall evaluate the DAMP to determine whether any revisions are necessary in order to reduce pollutants in MS4 discharges to the maximum extent practicable.[601]

The Commission finds that the activities required by section VII.B.1, to annually review the existing structural treatment control and other BMPs for New Developments, submit any changes for review and approval by the Executive Officer, revise the appropriate tables in the Water Quality Management Plan [WQMP] with the latest information on BMPs, and provide additional clarification regarding their effectiveness and applicability, are *not* new. As indicated above, the claimants were required by the prior permit to annually evaluate their DAMP, which included the new development BMPs and the WQMP, and to make any necessary revisions in order to reduce pollutants in MS4 discharges to the MEP.[602]

However, the following requirements imposed by sections XII.C.1, XII.D.5, and XII.E.1 of the test claim permit are new:

- Within 12 months of adoption of this order, update the model WQMP to incorporate LID principles (as per Section XII.C) and to address the impact of urbanization on downstream hydrology (as per Section XII.D) and a copy of the updated model WQMP shall be submitted for review and approval by the Executive Officer. (Section VII.C.1.)[603]

  Under the prior permit, the claimants' planning documents "should" have included information on hydrology and requirements to limit disturbances of natural water bodies and drainage systems and to conserve natural areas.[604] However, they were not required to include these principles, or other LID and hydromodification principles in the model plan.

- Prepare a Watershed Master Plan to address the hydrologic conditions of concern on a watershed basis. The Watershed Master Plans shall integrate water quality, hydromodification, water supply, and habitat for the following watersheds: Coyote Creek-San Gabriel River; Anaheim Bay-Huntington Harbour; Santa Ana River; and Newport Bay-Newport Coast. Components of the Plan shall include: (1) maps to identify

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[600] Exhibit A, Test Claim, filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 425-426 [Order No. R8-2002-0010].

[601] Exhibit A, Test Claim, filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 432 [Order No. R8-2002-0010].

[602] Exhibit A, Test Claim, filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 432 [Order No. R8-2002-0010].

[603] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 323 [Order No. R8-2009-0030].

[604] Exhibit A, Test Claim, filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 423-424 [Order No. R8-2002-0010].

areas susceptible to hydromodification including downstream erosion, impacts on physical structure, impacts on riparian and aquatic habitats and areas where storm water and urban runoff infiltration is possible and appropriate; and, (2) a hydromodification model to make available as a tool to enable proponents of land development projects to readily select storm water preventive and mitigative site BMP measures. The maps shall be prepared within 12 months of the adoption of this order and a model Plan for one watershed shall be prepared within 24 months of adoption of this order. The model Watershed Master Plan shall be submitted to the Executive Officer for approval. Watershed Master Plans shall be completed for all watersheds 24 months after approval of the model Watershed Master Plan. The Watershed Master Plans shall be designed to meet applicable water quality standards and the Federal Clean Water Act. (Section XII.D.5.)[605]

- Within 12 months of adoption of this order, the principal permittee, in collaboration with the co-permittees, shall develop technically-based feasibility criteria for project evaluation to determine the feasibility of implementing LID BMPs (feasibility to be based in part, on the issues identified in Section XII.C). This plan shall be submitted to the Executive Officer for approval. Only those projects that have completed a vigorous feasibility analysis as per the criteria developed by the permittees and approved by the Executive Officer should be considered for alternatives and in-lieu programs. If a particular BMP is not technically feasible, other BMPs should be implemented to achieve the same level of compliance, or if the cost of BMP implementation greatly outweighs the pollution control benefits, a waiver of the BMPs may be granted. All requests for waivers, along with feasibility analysis including waiver justification documentation, must be submitted to the Executive Officer in writing, 30 days prior to permittee approval. (Section XII.E.1.)[606]

ii. *The new planning activities required by XII.C.1, XII.D.5, and XII.E.1 are mandated by the state.*

Under federal law, NPDES permits "shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants."[607] Federal regulations define "best management practices" as:

> . . . schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of "waters of the United States." BMPs also include treatment requirements, operating procedures,

[605] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 328 [Order No. R8-2009-0030].

[606] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 328-329 [Order No. R8-2009-0030].

[607] United States Code, title 33, section 1342(p)(3)(B)(iii) (Public Law 100-4).

> and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.[608]

Federal regulations also require that the application for an NPDES permit for large and medium MS4 dischargers to describe a proposed management program that covers the duration of the permit to be considered by the Regional Board when developing permit conditions to reduce pollutants in discharges to the MEP. As relevant here, the proposed management programs shall include the following information:

- A description of planning procedures including a comprehensive master plan to develop, implement, and enforce controls to reduce the discharge of pollutants from MS4s that receive discharges from areas of *new development and significant redevelopment*. The plan shall address controls to reduce pollutants in discharges from MS4s after construction is completed.
- A description of practices for operating and maintaining *public streets, roads, and highways*, and procedures for reducing the impact on receiving waters of discharges from MS4s.
- A description of a program to *implement and maintain structural and non-structural BMPs* to reduce pollutants in stormwater runoff *from construction sites* to the MS4. The description shall include procedures for site planning, which incorporates consideration of potential water quality impacts; requirements for nonstructural and structural BMPs; procedures for identifying priorities for inspecting sites and enforcing control measures that consider the nature of the construction activity, topography, and the characteristics of soils and receiving water quality; and appropriate educational and training measures for construction site owners.[609]

Federal law, however, does not require the specific planning activities required by sections XII.C.1, XII.D.5, and XII.E.1 of the test claim permit.

In *Department of Finance v. Commission on State Mandates*, the California Supreme Court identified the following test to determine whether certain conditions relating to trash and inspection requirements imposed by an NPDES stormwater permit issued by the Los Angeles Regional Board were mandated by the state or by the federal government:

> If federal law compels the state to impose, or itself imposes, a requirement, that requirement is a federal mandate. On the other hand, if federal law gives the state discretion whether to impose a particular implementing requirement, and the state exercises its discretion to impose the requirement by virtue of a "true choice," the requirement is not federally mandated.[610]

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[608] Code of Federal Regulations, title 40, section 122.2.

[609] Code of Federal Regulations, title 40, section 122.26(d)(2)(iv).

[610] *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 765.

The court also held that if the state, in opposition, contends its requirements are federal mandates, the state has the burden to establish the requirements are in fact mandated by federal law.[611]

Applying that test to the permit issued by the Los Angeles Regional Board in the *Department of Finance* case, the court found that the Regional Board was not required by federal law to impose any specific permit conditions, including the requirements to install and maintain trash, and inspect commercial, industrial, and construction sites. The court explained that the Clean Water Act broadly directs the Board to issue permits with conditions designed to reduce pollutant discharges to the MEP, and the federal regulations give broad discretion to the Boards to determine which specific controls are necessary to meet the MEP standard.[612] The court also found that the Commission did not have to defer to the Regional Board's conclusion that the challenged requirements were federally mandated since the determination is largely a question of law. However, "[h]ad the Regional Board found, when imposing the disputed permit conditions, that those conditions were the *only means* by which the maximum extent practicable standard could be implemented, deference to the board's expertise in reaching that finding would be appropriate."[613]

In 2017, the Third District Court of Appeal applied the Supreme Court's test to an NPDES permit issued by the San Diego Regional Water Board, which contained LID and hydromodification planning requirements similar to the test claim permit at issue in this case.[614] The court held that there is no dispute that Clean Water Act and its regulations grant the San Diego Regional Board discretion to meet the MEP standard. "The CWA requires NPDES permits for MS4's to 'require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions *as the Administrator or the State determines appropriate* for the control of such pollutants."[615] The US EPA regulations also describe the discretion the State will exercise to meet the MEP standard. The regulations require a permit application by an MS4 to propose a management program, as specified, which "*will be*

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[611] *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 769.

[612] *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 767-768, citing to Code of Federal Regulations, title 40, section 122.26(d)(2)(iv).

[613] *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 769-770, emphasis added.

[614] *Department of Finance v. Commission on State Mandates* (2017) 18 Cal.App.5th 661, which challenged the Commission's Decision in *Discharge of Stormwater Runoff- Order No. R9-2007-0001*, 07-TC-09, adopted March 26, 2010, San Diego Regional Board Order No. R9-0007-0001.

[615] *Department of Finance v. Commission on State Mandates* (2017) 18 Cal.App.5th 661, 681, citing to United States Code, title 33, section 1342(p)(3)(B)(iii) (emphasis in original).

considered by the Director when developing permit conditions to reduce pollutants in discharges to the maximum extent practicable."[616]

Despite this language, the state argued in that case that the Regional Board "really did not exercise discretion" in imposing the challenged requirements since the Regional Board made a finding that its requirements were "necessary" to reduce pollutant discharges to the MEP. The state also contended that it did not make a true choice because the requirements were based on proposals in the application, which were modified by the Regional Board to achieve the federal standard.[617]

The court disagreed with the state's arguments. The court held that the state misconstrued the Supreme Court's decision in the 2016 case, where the Supreme Court made it clear that "except where a regional board finds the conditions are the *only means* by which the 'maximum extent practicable' standard can be met, the State exercises a true choice by determining what controls are necessary to meet the standard."[618] "That the San Diego Regional Board found the permit requirements were 'necessary' to meet the standard establishes only that the San Diego Regional Board exercised its discretion."[619]

With respect to the hydromodification plan requirements in the permit, the state claimed the requirement arises from U.S. EPA regulations (40 C.F.R. 122.26(d)(2)(iv)(A)(2)) requiring the permit applicant to include in its application a description of planning procedures to develop and enforce controls to reduce the discharge of pollutants from MS4s that receive discharges from areas of new development and significant redevelopment. The court held, however, that the federal regulation does not require a hydromodification plan, nor does it restrict the Regional Board from exercising its discretion to require a specific type of plan to address the impacts of new development. The hydromodification plan requirements were held to be mandated by the state.[620]

The LID provisions in that case required the permittees to implement specified LID BMPs at most new development and redevelopment projects, and required the permittees to develop a model SUSMP to establish LID BMPs that meet or exceed the requirements. The state, relying on the same federal regulation cited in the paragraph above, argued that the requirements were necessary to achieve federal law. The court held that "nothing in the application regulation

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[616] *Department of Finance v. Commission on State Mandates* (2017) 18 Cal.App.5th 661, 681, citing to Code of Federal Regulations, title 40, section 122.26(d)(2)(iv) (emphasis in original).

[617] *Department of Finance v. Commission on State Mandates* (2017) 18 Cal.App.5th 661, 681-682.

[618] *Department of Finance v. Commission on State Mandates* (2017) 18 Cal.App.5th 661, 682 citing *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 768, emphasis added.

[619] *Department of Finance v. Commission on State Mandates* (2017) 18 Cal.App.5th 661, 682.

[620] *Department of Finance v. Commission on State Mandates* (2017) 18 Cal.App.5th 661, 684.

required the San Diego Regional Board to impose these specific requirements. As a result, they are state mandates subject to [article XIII B] section 6."[621]

The same analysis and findings apply to the planning activities required sections XII.C.1, XII.D.5, and XII.E.1 of the test claim permit. Accordingly, the Commission finds that these activities are newly mandated by the state.

iii. *The new mandated activities required by XII.C.1, XII.D.5, and XII.E.1 constitute a new program or higher level of service.*

Article XIII B, section 6 requires reimbursement whenever the Legislature or any state agency mandates a new program or higher level of service that results in costs mandated by the state. "New program or higher level of service" is defined as "programs that carry out the governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state."[622] Only one of these alternatives is required to establish a new program or higher level of service.[623]

Here, the new mandated activities cited above are expressly directed toward the local agency claimants under their regulatory authority, and thus are unique to local government. "The intent of the WQMP, . . .and other programs and policies incorporated into this order is to minimize the impact from the project on water quality and the environment."[624] Moreover, "[t]he challenged requirements are not bans or limits on pollution levels, they are mandates to perform specific actions" designed to reduce pollution entering stormwater drainage systems and receiving waters.[625] Thus, the new mandated activities also provide a governmental service to the public.

b. <u>The LID and hydromodification requirements imposed on municipal priority development project proponents do not impose a state-mandated new program or higher level of service.</u>

The LID and hydromodification prevention requirements imposed on project proponents are triggered at the planning stages of all new development and significant re-development projects, which the permit deems *priority* development projects.[626] *Priority projects* are defined by their scale and their potential to contribute pollutants in section XII.B.2, and include private and municipal priority development projects, as follows:

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[621] *Department of Finance v. Commission on State Mandates* (2017) 18 Cal.App.5th 661, 685.

[622] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56.

[623] *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521, 537; *Department of Finance v. Commission on State Mandates* (2021) 59 Cal.App.5th 546, 557.

[624] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 292 [Order No. R8-2009-0030, Finding 65].

[625] *Department of Finance v. Commission on State Mandates* (2021) 59 Cal.App.5th 546, 560.

[626] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 319 [Order No. R8-2009-0030].

- Significant redevelopment including the addition or replacement of 5,000 square feet or more of impervious surface, *but not including* routine maintenance that preserves the original line and grade, hydraulic capacity, original purpose of the facility; and not including emergency redevelopment activity required to protect public health and safety;
- New development projects creating 10,000 square feet or more of impervious surface;
- Automotive repair shops;
- Restaurants where the area of development is 5,000 square feet or more;
- Hillside developments on 5,000 square feet or more, located on areas with known erosive soil conditions or where the slope is twenty-five percent or more;
- Developments of 2,500 square feet of impervious surface or more, adjacent to or discharging directly into environmentally sensitive areas, such as areas designated in the Ocean Plan as Areas of Special Biological Significance or waterbodies listed on the CWA Section 303(d) list;
- Parking lots of 5,000 square feet or more of impervious surface exposed to stormwater;
- Streets, roads, highways and freeways of 5,000 square feet or more of paved surface used for transportation of automobiles, trucks, motorcycles and other vehicles (excluding routine road maintenance where the footprint is not changed) shall incorporate USEPA guidance, "Managing Wet Weather with Green Infrastructure: Green Streets"[627] in a manner consistent with the maximum extent practicable standard;
- Retail gasoline outlets of 5,000 square feet or more with a projected average daily traffic of 100 or more vehicles;
- Emergency and public safety projects may be excluded if the delay to prepare a WQMP compromises public safety, public health and/or environmental protection.[628]

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[627] See Exhibit Q (41), U.S. EPA, Managing Wet Weather with Green Infrastructure Municipal Handbook, Green Streets (December 2008), page 4. [This guidance document provides a number of pollutant control techniques to consider when developing roads, including narrower streets (less impervious area); vegetated roadside swales; bioretention curb extensions and planters; permeable pavement; and sidewalk trees and tree boxes. The guidance states:

> Although the design and appearance of green streets will vary, the functional goals are the same: provide source control of stormwater, limit its transport and pollutant conveyance to the collection system, restore predevelopment hydrology to the extent possible, and provide environmentally enhanced roads. Successful application of green techniques will encourage soil and vegetation contact and infiltration and retention of stormwater.].

[628] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 319-320 [Order No. R8-2009-0030].

The requirements imposed by Sections XII.B. through XII.E. of the Permit on priority development projects include the following:

- Preparing a Water Quality Management Program (WQMP) for the proposed development project, which "shall include BMPs for source control, pollution prevention, site design, LID implementation…and structural treatment control BMPs." (Section XII.B.3-5.)
- Infiltrating, harvesting and re-using, evapotranspiring, or bio-treating the 85th percentile storm event. (Section XII.C.2.)
- Incorporating LID principles in the design of the site to reduce runoff "to maintain or replicate the pre-development hydrologic regime through the use of design techniques that create a functionally equivalent post-development hydrologic regime through site preservation techniques and the use of integrated and distributed micro-scale storm water infiltration, retention, detention, evapotranspiration, filtration and treatment systems as close as feasible to the source of runoff," as specified. (Section XII.C.3.)
- Ascertaining the impact of the development on the site's hydrologic regime, and identifying any potential for adverse impacts (hydrologic condition[s] of concern). If a hydrologic condition of concern exists, then the WQMP shall include an evaluation of whether the project will adversely impact downstream erosion, sedimentation or stream habitat. If the evaluation determines adverse impacts are likely to occur, the project proponent shall implement additional site design controls, on-site management controls, structural treatment controls and/or in-stream controls to mitigate the impacts. (Section XII.D.1-3.)
- Where applicable (such as when a particular BMP is not technically feasible or the cost of BMP implementation outweighs the pollution control benefits), implementing alternatives and in-lieu requirements, as defined by the permittees. (Section XII.E.1.)[629]

i. *Some of the requirements imposed on priority development projects are new, and some are not.*

Some of these requirements are new, and some are not.

The prior permit identified most of the same priority development projects, except that the test claim permit expands the list to now include the following new priority development projects:

- New development projects creating 10,000 square feet or more of impervious surface.
- The prior permit defined priority development projects to include "All hillside developments on 10,000 square feet or more, which are located on areas with known erosive soil conditions or where the natural slope is twenty-five percent or more."[630] The

[629] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 319-330 [Order No. R8-2009-0030].

[630] Exhibit A, Test Claim, filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 425 [Order No. R8-2002-0010].

test claim permit has expanded that to "hillside developments on 5,000 square feet or more."

Thus, hillside developments between 5,000 and 9,999 square feet that are located on areas with known erosive soil conditions or where the natural slope is twenty-five percent or more are now newly defined as a priority development project.

- Streets, roads, highways and freeways of 5,000 square feet or more of paved surface used for transportation of automobiles, trucks, motorcycles and other vehicles (excluding routine road maintenance where the footprint is not changed) shall incorporate USEPA guidance, "Managing Wet Weather with Green Infrastructure: Green Streets" in a manner consistent with the maximum extent practicable standard.

Thus, with respect to these new priority projects, all of the following required activities are new:

- Preparing a Water Quality Management Program (WQMP) for the proposed development project, which "shall include BMPs for source control, pollution prevention, site design, LID implementation…and structural treatment control BMPs." (Section XII.B.3-5.)
- Infiltrating, harvesting and re-using, evapotranspiring, or bio-treating the 85th percentile storm event. (Section XII.C.2.)
- Incorporating LID principles in the design of the site to reduce runoff "to maintain or replicate the pre-development hydrologic regime through the use of design techniques that create a functionally equivalent post-development hydrologic regime through site preservation techniques and the use of integrated and distributed micro-scale storm water infiltration, retention, detention, evapotranspiration, filtration and treatment systems as close as feasible to the source of runoff," as specified. (Section XII.C.3.)
- Ascertaining the impact of the development on the site's hydrologic regime, and identifying any potential for adverse impacts (hydrologic condition[s] of concern). If a hydrologic condition of concern exists, then the WQMP shall include an evaluation of whether the project will adversely impact downstream erosion, sedimentation or stream habitat. If the evaluation determines adverse impacts are likely to occur, the project proponent shall implement additional site design controls, on-site management controls, structural treatment controls and/or in-stream controls to mitigate the impacts. (Section XII.D.1-3.)
- Where applicable (such as when a particular BMP is not technically feasible or the cost of BMP implementation outweighs the pollution control benefits), implementing alternatives and in-lieu requirements, as defined by the permittees. (Section XII.E.1.)[631]

However, the following priority development projects are not new and were identified in both the prior permit and the test claim permit and, thus the copermittees are only newly required to perform the new activities added by the test claim permit with respect to these projects:

[631] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 319-330 [Order No. R8-2009-0030].

- Significant redevelopment including the addition or replacement of 5,000 square feet or more of impervious surface, *but not including* routine maintenance that preserves the original line and grade, hydraulic capacity, original purpose of the facility; and not including emergency redevelopment activity required to protect public health and safety.
- Developments of 2,500 square feet of impervious surface or more, adjacent to or discharging directly into environmentally sensitive areas, such as areas designated in the Ocean Plan as Areas of Special Biological Significance or waterbodies listed on the CWA Section 303(d) list;
- Parking lots of 5,000 square feet or more of impervious surface exposed to stormwater.

The prior permit required these specified categories of priority development projects to prepare a WQMP for the proposed development project that includes source control, pollution prevention, and/or structural treatment BMPs, including minimum structural BMPs that are sized to infiltrate, filter, or treat urban runoff generated by 85th percentile storm events. In addition, the prior permit allowed a waiver to these requirements and alternatives or in-lieu requirements where a particular BMP is not technically feasible or the cost of BMP implementation outweighs the pollution control benefits.[632] Thus, these activities are not new for the categories of priority development projects specified in the prior permit. However, the following activities are new for all priority development projects, including those categories specified in the prior permit:

- Incorporating LID principles in the design of the site to reduce runoff "to maintain or replicate the pre-development hydrologic regime through the use of design techniques that create a functionally equivalent post-development hydrologic regime through site preservation techniques and the use of integrated and distributed micro-scale storm water infiltration, retention, detention, evapotranspiration, filtration and treatment systems as close as feasible to the source of runoff," as specified. (Section XII.C.3.)
- Ascertaining the impact of the development on the site's hydrologic regime, and identifying any potential for adverse impacts (hydrologic condition[s] of concern). If a hydrologic condition of concern exists, then the WQMP shall include an evaluation of whether the project will adversely impact downstream erosion, sedimentation or stream habitat. If the evaluation determines adverse impacts are likely to occur, the project proponent shall implement additional site design controls, on-site management controls, structural treatment controls and/or in-stream controls to mitigate the impacts. (Section XII.D.1-3.)

However, as described below, there is no legal requirement imposed by the state for local government to undertake municipal priority development projects, and therefore the LID and hydromodification prevention requirements of the test claim permit with respect to municipal priority development projects are not state-mandated. In addition, the activities are not unique to local government and do not provide a peculiarly governmental service to the public within the meaning of article XIII B, section 6, and, thus, do not impose a new program or higher level of service.

[632] Exhibit A, Test Claim, pages 425-427 [Order No. R8-2002-0010].

ii. *The LID and hydromodification requirements imposed on priority development project proponents are not mandated by the state.*

To determine whether a requirement is mandated by the state, the requirement must be legally compelled by state law; that is, the law creates a mandatory legal obligation to comply with the requirements.[633] In the absence of legal compulsion, the courts have acknowledged the possibility that a state mandate can be found if local government can show that it faces "certain and severe penalties, such as double taxation or other draconian consequences," leaving local government no choice but to comply with the conditions established by the state.[634]

All costs incurred by a municipality as a project proponent under the LID and hydromodification sections of the test claim permit can be analogized to *City of Merced v. State* (1984) 153 Cal.App.3d 777 and *Department of Finance v. Commission on State Mandates* (*Kern*) (2003) 30 Cal.4th 727. In *City of Merced*, the statute at issue required a local government when exercising the power of eminent domain to compensate a business owner for the loss of business goodwill, as part of compensating for the property subject to the taking.[635] The court found that nothing *required* the local entity to exercise the power of eminent domain, and thus any costs experienced as a result of the requirement to compensate for business goodwill was the result of an initial discretionary act.[636]

In *Kern*, the statute at issue required certain local school committees to comply with notice and agenda requirements in conducting their public meetings.[637] There, the Court held that the underlying school site councils and advisory committees were part of several separate voluntary grant-funded programs, and therefore any notice and agenda costs were an incidental impact of participating or continuing to participate in those programs.[638] The Court acknowledged that the district was already participating in the underlying programs, and "as a practical matter, they feel they must participate in the programs, accept program funds, and…incur expenses necessary to comply with the procedural conditions imposed on program participants."[639] However, the Court held that "[c]ontrary to the situation that we described in *City of Sacramento* [*v. State*

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[633] *Coast Community College Dist. v. Commission on State Mandates* (2022) 13 Cal.5th 800, 815 [". . . legal compulsion is present when the local entity has a mandatory, legally enforceable duty to obey. This standard is similar to the showing necessary to obtain a traditional writ of mandate, which requires the petitioning party to establish the respondent has "a clear, present, and usually ministerial duty to act. ... Mandate will not issue if the duty is ... mixed with discretionary power."].

[634] *Coast Community College Dist. v. Commission on State Mandates* (2022) 13 Cal.5th 800, 816-817.

[635] *City of Merced v. State* (1984) 153 Cal.App.3d 777, 782.

[636] *City of Merced v. State* (1984) 153 Cal.App.3d 777, 783.

[637] *Department of Finance v. Commission on State Mandates* (*Kern*) (2003) 30 Cal.4th 727, 732.

[638] *Department of Finance v. Commission on State Mandates* (*Kern*) (2003) 30 Cal.4th 727, 744-745.

[639] *Department of Finance v. Commission on State Mandates* (*Kern*) (2003) 30 Cal.4th 727, 753.

(1990)] 50 Cal.3d 51, a claimant that elects to discontinue participation in one of the programs here at issue does not face 'certain and severe…penalties' such as 'double…taxation' or other 'draconian' consequences, but simply must adjust to the withdrawal of grant money along with the lifting of program obligations."[640]

The claimants specifically dispute the application of *City of Merced* and *Kern*, stating "the 2009 Permit is not a voluntary program, yet it requires the Permittees to incur costs related to low impact development and hydromodification on any municipal project."[641] Furthermore, the claimants argue that "since issuing the *Kern High School Dist*. Decision, the California Supreme Court has rejected application of *City of Merced* in circumstances beyond those strictly present in Kern High School Dist. [sic]."[642] The claimants cite *San Diego Unified School Dist. v. Commission* (2004) 33 Cal.4th 859, 887-888, in which the Court stated "there is reason to question an extension of the holding of *City of Merced* so as to preclude reimbursement…whenever an entity makes an initial discretionary decision that in turn triggers mandated costs."[643]

Claimants misinterpret *San Diego Unified*, and place too much emphasis on dicta. In *San Diego Unified* the Court discussed the example of *Carmel Valley Fire Protection Dist. v. State* (1987) 190 Cal.App.3d 521, in which an executive order requiring that county firefighters be provided with protective clothing and safety equipment was held to impose a reimbursable state mandate for the costs of the clothing and equipment.[644] The *San Diego Unified* Court reasoned that under a strict application of the rule of *City of Merced* "such costs would not be reimbursable for the simple reason that the local agency's decision to employ firefighters involves an exercise of discretion concerning, for example, how many firefighters are needed to be employed, etc."[645] In a footnote the Court acknowledged the argument made by amici and discussed by the Court of Appeal, below, that based on a school district's legal obligation to maintain a safe educational environment for both students and staff, it is inevitable that at least *some* expulsion proceedings

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[640] *Department of Finance v. Commission on State Mandates* (*Kern*) (2003) 30 Cal.4th 727, 754 [citing *City of Sacramento v. State* (1990) 50 Cal.3d 51, 74 (The "certain and severe…penalties" and "double…taxation" referred to the situation in *City of Sacramento* in which the state was compelled, by the potential loss of *both* federal tax credits *and* subsidies provided to businesses statewide, to impose mandatory unemployment insurance coverage on public agencies consistent with a change in federal law.)].

[641] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 83.

[642] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 83.

[643] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 83 [citing *San Diego Unified School Dist. v. Commission on State Mandates* (2004) 33 Cal.4th 859, 887-888].

[644] *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521.

[645] *San Diego Unified School Dist. v. Commission on State Mandates* (2004) 33 Cal.4th 859, 887-888.

will occur, and thus the hearing procedures should not be said to be entirely the result of voluntary or discretionary activity.[646] However, the Court did not decide *San Diego Unified* on that ground, finding instead that hearing costs incurred relating to so-called discretionary expulsion proceedings under the Education Code were adopted to implement a federal due process mandate, and were, in context, de minimis, and were therefore nonreimbursable.[647] Therefore the language cited by claimants is merely dicta, and in any case does not reach a *conclusion* with respect to the prospective application of the *City of Merced* and *Kern* rules.

The Court of Appeal for the Third District addressed the bounds of the *Kern* rule in greater detail, holding that following *City of Merced*, *Kern*, and *San Diego Unified*, there may be activities that involve the exercise of discretion but are nevertheless inevitable in the administration of a mandatory program.[648] The issue in *POBRA* was whether the alleged mandated costs spring from a local entity's "essential and basic function."[649] In *POBRA*, the alleged mandate pertained to due process protections required to be extended to all peace officers in the state, and the question was whether those costs constituted a reimbursable state mandate with respect to school districts, which were authorized, but not required, to employ peace officers. The court held that school districts "do not have provision of police protection as an essential and basic function," and therefore the decision to employ peace officers entitled to the protections of POBRA was a discretionary act that led the district to incur the costs alleged.[650] The court concluded that employing peace officers is not essential unless there is a showing that, as a practical matter, exercising the authority to hire peace officers is the only reasonable means to carry out their core mandatory functions."[651] The court found that it was "not manifest on the face of the statutes cited nor is there any showing in the record that hiring its own peace officers, rather than relying upon the county or city in which it is embedded, is the only way as a practical matter to comply."[652] The court emphasized that practical compulsion requires a *concrete* showing that a failure to engage in the activities at issue will result in certain and severe penalties

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[646] *San Diego Unified School Dist. v. Commission on State Mandates* (2004) 33 Cal.4th 859, 887, Fn. 22.

[647] *San Diego Unified School Dist. v. Commission on State Mandates* (2004) 33 Cal.4th 859, 888 ["As we shall explain, we conclude, regarding the reimbursement claim that we face presently, that all hearing procedures set forth in Education Code section 48918 properly should be considered to have been adopted to implement a federal due process mandate, and hence that all such hearing costs are nonreimbursable under article XIII B, section 6…"].

[648] *Department of Finance v. Commission* (2009) 170 Cal.App.4th 1355 (*POBRA*).

[649] *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355, 1368 (*POBRA*).

[650] *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355, 1368 (*POBRA*).

[651] *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355, 1368 (*POBRA*).

[652] *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355, 1367 (*POBRA*).

or other draconian consequences, leaving districts no choice but to comply.[653] As recognized by the concurring opinion in that case, "instinct is insufficient to support a legal conclusion."[654]

Therefore, based on *Kern*, *POBRA*, and *Coast Community College Dist.* where statutory or regulatory requirements result from an apparently or facially *discretionary* decision, and are therefore not *legally* compelled, they may be *practically* compelled if the failure to act would subject the claimant to "certain and severe…penalties" such as "double…taxation" or other "draconian" consequences, which may occur if the discretionary act is "the only reasonable means to carry out [the claimant's] core mandatory functions.[655] Substantial evidence in the record is required to make a finding of practical compulsion.[656]

Here, claimants assert, without support, that certain municipal projects, including roads and streets "are not optional."[657] Rather, "[t]hey are integral to the Permittee's function as municipal entities [*sic*], and the failure to make necessary repairs, upgrades, and extensions can expose the Permittees to liability."[658] This amounts to asserting *both* that the projects are "the only reasonable means to carry out their core mandatory functions"[659] *and* that potential tort liability constitutes "certain and severe…penalties" or other "draconian" consequences.[660]

The claimants' position is not supported by the law or any evidence in the record. First, the requirements detailed in the test claim permit do not apply to maintenance activities, based on the plain language of the order.[661] Section XII.B.2.a. defines significant redevelopment projects triggering the planning requirements as those "that include the *addition or replacement* of 5,000 square feet or more of impervious surface on a developed site…" and explicitly *excludes*

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[653] *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355, 1367 (*POBRA*).

[654] *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355, 1369 (*POBRA*).

[655] *Department of Finance v. Commission on State Mandates* (*Kern*) (2003) 30 Cal.4th 727, 754 [citing *City of Sacramento v. State* (1990) 50 Cal.3d 51, 74]; *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355, 1368 (*POBRA*).

[656] *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355, 1368-1369 (*POBRA*); Government Code section 17559; California Code of Regulations, title 2, section 1187.5.

[657] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 83.

[658] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 83.

[659] *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355, 1368 (*POBRA*).

[660] *Department of Finance v. Commission on State Mandates* (*Kern*) (2003) 30 Cal.4th 727, 754.

[661] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 319-320 [Order No. R8-2009-0030].

"routine maintenance activities that are conducted to maintain the original line and grade, hydraulic capacity, original purpose of the facility, or emergency redevelopment activity required to protect public health and safety."[662] Moreover, and specifically relevant to roads, streets, and highways, applying the "Green Streets" guidance is *not* required for "any road maintenance activities where the footprint is not changed."[663] Therefore, the costs that claimants allege related to municipal projects involving roads can only be those that involve *expanding* the footprint of existing roads or constructing *new* roads. *Maintaining* roads, the failure of which claimants allege would result in significant liability, is not the type of activity that triggers the test claim permit's alleged mandated requirements.

In addition, there is nothing in state statute or case law that imposes a legal obligation on local agencies to develop or redevelop property, construct new buildings or new roads, or to expand or improve roads or buildings, and without such duty, there can be no liability, as asserted by the claimants.[664]

Moreover, there is no evidence in the record that local agencies are practically compelled, as the only reasonable means necessary to carry out core mandatory functions, to develop or redevelop priority municipal projects, including roads, and therefore comply with the downstream new requirements.[665] Nor is there evidence in the record that a failure to develop or redevelop

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[662] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 319 [Order No. R8-2009-0030] (emphasis added).

[663] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 320 [Order No. R8-2009-0030].

[664] *Coast Community College Dist. v. Commission on State Mandates* (2022) 13 Cal.5th 800, 815. See also, Government Code section 23004 (counties *may* purchase, receive by gift or bequest, and hold land within its limits, or elsewhere when permitted by law; and manage, sell, lease, or otherwise dispose of its property as the interests of its inhabitants require); Government Code sections 37350-37353 (cities *may* purchase, lease, receive, hold, and enjoy real and personal property, and control and dispose of it for the common benefit; may erect and maintain buildings for municipal purposes; and may acquire property for parking motor vehicles, and for opening and laying out any street; Government Code 37111 ("When the legislative body deems it necessary that land purchased for park or other purposes be used for construction of public buildings or creation of a civic center, it *may* adopt an ordinance by a four-fifths vote declaring the necessity and providing for such use"); Streets and Highways Code, sections 1800 ["The legislative body of any city *may* do any and all things necessary to lay out, acquire, and construct any section or portion of any street or highway within its jurisdiction as a freeway, and to make any existing street or highway a freeway."]; 1801 ["The legislative body of any city *may* close any street or highway within its jurisdiction at or near the point of its intersection with any freeway, or may make provision for carrying such street or highway over, under, or to a connection with the freeway, and *may* do any and all necessary work on such street or highway."].

[665] *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355, 1368 (POBRA).

priority municipal projects would subject the claimant to "certain and severe…penalties" such as "double…taxation" or other "draconian" consequences.[666]

In response to the Draft Proposed Decision, the claimants assert that they are mandated to comply with the new requirements since they have constructed a centralized civic center and a transitional housing project for the homeless, which they allege were the only reasonable means to carry out their core mandatory functions.[667] The claimants submit the staff reports supporting the approval of the new civic center and the homeless shelter.[668] The staff report for the civic center indicates that the "the Civic Center FSP anticipates the renovation of several existing facilities and the replacement of several older facilities with new construction. These activities would result in the replacement of older facilities with approximately 700,000 square feet of newly constructed government office uses within the Civic Center FSP area."[669] The staff report for the homeless shelter indicates that project was a redevelopment project "for the construction of improvements on County-owned property located at 2229 South Yale Street, Santa Ana for the Yale Transitional Center for individuals experiencing homelessness" and was going to "shelter up to 425 individuals experiencing homelessness."[670] Thus, both of these projects were defined as priority development projects under the prior permit ("All significant re-development projects, where significant re-development is defined as the addition of 5,000 or more square feet of impervious surface on an already developed site") and, therefore, only the following new activities are at issue with these projects:

- Incorporating LID principles in the design of the site to reduce runoff "to maintain or replicate the pre-development hydrologic regime through the use of design techniques that create a functionally equivalent post-development hydrologic regime through site preservation techniques and the use of integrated and distributed micro-scale storm water infiltration, retention, detention, evapotranspiration, filtration and treatment systems as close as feasible to the source of runoff," as specified. (Section XII.C.3.)
- Ascertaining the impact of the development on the site's hydrologic regime, and identifying any potential for adverse impacts (hydrologic condition[s] of concern). If a hydrologic condition of concern exists, then the WQMP shall include an evaluation of whether the project will adversely impact downstream erosion, sedimentation or stream habitat. If the evaluation determines adverse impacts are likely to occur, the project proponent shall implement additional site design controls, on-site management controls,

[666] *Department of Finance v. Commission on State Mandates* (*Kern)* (2003) 30 Cal.4th 727, 754 [citing *City of Sacramento v. State* (1990) 50 Cal.3d 51, 74].

[667] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 26.

[668] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, pages 122-128, 144-149.

[669] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 124.

[670] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, pages 145-146.

structural treatment controls and/or in-stream controls to mitigate the impacts. (Section XII.D.1-3.)

The claimants also submit a declaration from Robert Rodarte, an Administrative Manager for the County of Orange overseeing the Green Infrastructure Program, to support their contentions.[671] Mr. Rodarte's declaration describes the projects the claimants are relying on, and states that "the goals" of the civic center were to "improve the delivery of County services to the community by grouping similar and related services; to improve efficiencies through these departmental adjacencies; reduce energy costs by capitalizing on the Central Utilities Facility; and to improve space usage which will result in lower long-term operating and maintenance costs for the County."[672] Mr. Rodarte declares that the "Yale Transitional Center is focused on '[p]roviding emergency shelter and access to wrap around supportive services will assist individuals experiencing homelessness ... in accessing the appropriate resources to improve their overall health and stability' and also to 'meet a critical need for individuals experiencing homelessness as well as the broader community, while also addressing a pressing social issue that is deeply affecting local businesses and neighborhoods.'"[673]

However, the declaration does not identify why it was necessary to redevelop new projects, or the alternatives discussed when the Board of Supervisors approved these projects, or show that the County had no other reasonable choice but to redevelop these new projects to carry out core functions.[674] Moreover, the transitional housing project for the homeless was the result of a *settlement agreement* between Orange County and attorneys representing the homeless ("The settlement also addresses homeless advocates' complaints about the unsanitary conditions of county-funded homeless shelters. The county reaffirmed its commitments to providing facilities that are accessible, clean, safe and pest-free.")[675] Thus, although the decisions to redevelop these projects may have been good policy decisions, there is no evidence in the record that the County would have suffered certain and severe…penalties" such as "double…taxation" or other "draconian" consequences if it failed to develop these properties and comply with the new required activities.

Accordingly, the Commission finds that the requirements of the test claim permit, sections XII.B. through XII.E., as applied to municipal project proponents for priority development or re-development projects are not mandated by the state.

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[671] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, pages 117-120.

[672] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 118.

[673] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 119.

[674] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, pages 117-120.

[675] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 109.

iii. *The LID and hydromodification prevention requirements imposed on priority development project proponents are not unique to local government and do not provide a peculiarly governmental service to the public within the meaning of article XIII B, section 6, and therefore do not constitute a new program or higher level of service subject to article XIII B, section 6 of the California Constitution.*

Article XIII B, section 6 requires reimbursement whenever the Legislature or a state agency mandates a new program or higher level of service that results in costs mandated by the state.

The California Supreme Court explained in *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, that a new program or higher level of service means "programs that carry out the governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local government and do not apply generally to all residents and entities in the state," as follows:

> Looking at the language of section 6 then, it seems clear that by itself the term "higher level of service" is meaningless. It must be read in conjunction with the predecessor phrase "new program" to give it meaning. Thus read, it is apparent that the subvention requirement for increased or higher level of service is directed to state mandated increases in the services provided by local agencies in existing "programs." But the term "program" itself is not defined in article XIII B. What programs then did the electorate have in mind when section 6 was adopted? We conclude that the drafters and the electorate had in mind the commonly understood meanings of the term – *programs that carry out the governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state*.[676]

The Court further held that "the intent underlying section 6 was to require reimbursement to local agencies for the costs involved in carrying out functions *peculiar to government*, not for expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities."[677] The law at issue in the *County of Los Angeles* case addressed increased worker's compensation benefits for government employees, and the Court concluded that:

> …section 6 has no application to, and the state need not provide subvention for, the costs incurred by local agencies in providing to their employees the same increase in worker's compensation benefits that employees of private individuals or organizations receive. Workers' compensation is *not* a program administered by local agencies to *provide service to the public*.[678]

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[676] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56 (emphasis added).

[677] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56-57 (emphasis added).

[678] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 57-58 (emphasis added).

The Court also concluded that the statute did not impose unique requirements on local government:

> Although local agencies must provide benefits to their employees either through insurance or direct payment, they are indistinguishable in this respect from private employers. In no sense can employers, public or private, be considered to be administrators of a program of workers' compensation or to be providing services incidental to administration of the program. Workers' compensation is administered by the state through the Division of Industrial Accidents and the Workers' Compensation Appeals Board. [Citation omitted.] Therefore, although the state requires that employers provide workers' compensation for nonexempt categories of employees, increases in the cost of providing this employee benefit are not subject to reimbursement as state-mandated programs or higher levels of service within the meaning of section 6.[679]

In *City of Sacramento*, the Court considered whether a state law extending mandatory unemployment insurance coverage to include local government employees imposed a reimbursable state mandate.[680] The Court followed *County of Los Angeles*, holding that "[b]y requiring local governments to provide unemployment compensation protection to their own employees, the state has not compelled provision of new or increased 'service to the public' at the local level…[nor] imposed a state policy 'uniquely' on local governments."[681] Rather, the Court observed that most employers were already required to provide unemployment protection to their employers, and "[e]xtension of this requirement to local governments, together with the state government and nonprofit corporations, merely makes the local agencies 'indistinguishable in this respect from private employers.'"[682]

A few other examples are instructive. In *Carmel Valley*, the claimants sought reimbursement from the state for protective clothing and equipment required by regulation, and the State argued that private sector firefighters were also subject to the regulations, and thus the regulations were not unique to government.[683] The court rejected that argument, finding that "police and fire protection are two of the most essential and basic functions of local government."[684] And since there was no evidence on that point in the trial court, the court held "we have no difficulty in

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[679] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56, 58.

[680] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51.

[681] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 67.

[682] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 67. See also, *City of Richmond v. Commission on State Mandates* (1998) 64 Cal.App.4th 1190 [Finding that statute eliminating local government exemption from liability for worker's compensation death benefits for public safety employees "simply puts local government employers on the same footing as all other nonexempt employers"].

[683] *Carmel Valley Fire Protection District v. State of California* (1987) 190 Cal.App.3d 521.

[684] *Carmel Valley Fire Protection District v. State of California* (1987) 190 Cal.App.3d 521, 537 [quoting *Verreos v. City and County of San Francisco* (1976) 63 Cal.App.3d 86, 107].

concluding as a matter of judicial notice that the overwhelming number of fire fighters discharge a classic governmental function."[685] Thus, the court found that the regulations requiring local agencies to provide protective clothing and equipment to firefighters carried out the governmental function of providing services to the public. The court also found that the requirements were uniquely imposed on government because:

> The executive orders manifest a state policy to provide updated equipment to all fire fighters. Indeed, compliance with the executive orders is compulsory. The requirements imposed on local governments are also unique because fire fighting is overwhelmingly engaged in by local agencies. Finally, the orders do not generally apply to all residents and entities in the State but only to those involved in fire fighting.[686]

Later, in *County of Los Angeles*, counties sought reimbursement for elevator fire and earthquake safety regulations that applied to all elevators, not just those that were publicly owned.[687] The court found that the regulations were plainly not unique to government.[688] The court also found that the regulations did not carry out the *governmental* function of providing a service to the public, despite declarations by the county that without those elevators, "no peculiarly governmental functions and no purposes mandated on County by State law could be performed in those County buildings . . . ."[689] The court held that the regulations did not constitute an increased or higher level of service, because "[t]he regulations at issue do not mandate elevator service; they simply establish safety measures."[690] The court continued:

> In determining whether these regulations are a program, the critical question is whether the mandated program carries out the governmental function of providing services to the public, not whether the elevators can be used to obtain these services. Providing elevators equipped with fire and earthquake safety features simply is not "a governmental function of providing services to the public." [FN 5 This case is therefore unlike *Lucia Mar, supra*, 44 Cal.3d 830, in which the court found the education of handicapped children to be a governmental function (44

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[685] *Carmel Valley Fire Protection District v. State of California* (1987) 190 Cal.App.3d 521, 537.

[686] *Carmel Valley Fire Protection District v. State of California* (1987) 190 Cal.App.3d 521, 538.

[687] *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538.

[688] *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538, 1545.

[689] *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538, 1545.

[690] *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538, 1546.

> Cal.3d at p. 835) and *Carmel Valley, supra*, where the court reached a similar conclusion regarding fire protection services. (190 Cal.App.3d at p. 537.)[691]

Here, the claimants have alleged the LID and hydromodification prevention requirements *as applied to municipal projects*, including "municipal yards, recreation centers, civic centers, and road improvements."[692] In addition, the claimants have alleged that "hospitals, laboratories, medical facilities, recreational facilities, airfields, parking lots, streets, roads, highways, and freeways" are projects that are "integral to the Permittee's function as municipal entities [sic]."[693] However, the LID and hydromodification prevention requirements applicable to all priority development projects are not uniquely imposed on government. Many of the categories of "priority development projects" in the test claim permit, especially automotive repair shops, parking lots, restaurants, and gas stations, contemplate a private person or entity as the project proponent, rather than a municipal entity. The LID and hydromodification prevention requirements are triggered based on the size and impact of a development project, not whether its proponent is a private or government entity.[694] In this respect, the requirements of the test claim permit are not unique to government, but apply only *incidentally* to the permittees, when the permittees are themselves the proponent of a project that meets the criteria of the Permit. This is no different from the situation addressed in the *County of Los Angeles I* and *City of Sacramento* cases; in each of those cases the alleged mandate applied to the local government as an employer, and applied in substantially the same manner as to all other employers, and for that reason the law at issue was not considered a "program" uniquely imposed on local government within the meaning of article XIII B.[695] An even closer analogy is seen in *County of Los Angeles v. Department of Industrial Relations*, in which the regulations complained of applied to publicly- and privately-owned elevators alike, and the court found that this did not constitute a unique requirement imposed on local government.[696] The LID and hydromodification prevention requirements apply equally to both municipal and private development projects.

Based on the foregoing, the Commission finds that requirements of sections XII.B., through XII.E., applicable to priority development projects are not unique to government and do not provide a peculiarly governmental service to the public within the meaning of article XIII B, section 6 and, thus, the claimants' request for reimbursement to comply with the LID and

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[691] *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538, 1546, Footnote 5.

[692] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 88.

[693] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 83.

[694] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 319-320 [Order No. R8-2009-0030].

[695] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 67 [citing *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 58].

[696] *County of Los Angeles v. Dept. of Industrial Relations* (1989) 214 Cal.App.3d 1538.

hydromodification requirements for municipal projects in sections XII.B., through XII.E., of the test claim permit is denied.

3. Section XI.4 of the Test Claim Permit Regarding the Residential Program Imposes a State-Mandated New Program of Higher Level of Service to Develop a Pilot Program to Control Pollutant Discharges from Common Interest Areas and Areas Managed by Homeowner Associations or Management Companies. All Other Provisions of Section XI. Are Either Not New, or Not Required.

Section XI. of the test claim permit requires permittees to "develop and implement" a program to reduce discharges of pollutants from residential areas, and the plain language of this section contains a series of "shalls" and "shoulds" when stating the activities as follows:[697]

1. Each permittee *shall* develop and implement a residential program to reduce the discharge of pollutants from residential facilities to the MS4s consistent with the maximum extent practicable standard so as to prevent discharges from the MS4s from causing or contributing to a violation of water quality standards in the receiving waters.
2. The permittees *should* identify residential areas and activities that are potential sources of pollutants and develop Fact Sheets/BMPs. At a minimum, this *should* include: residential auto washing and maintenance activities; use and disposal of pesticides, herbicides, fertilizers and household cleaners; and collection and disposal of pet wastes. The permittees *shall* encourage residents to implement pollution prevention measures. The permittees should work with sub-watershed groups (e.g., the Serrano Creek Conservancy) to disseminate latest research information, such as the UC Master Gardeners Program [fn. omitted] and USDA's Backyard Conservation Program. [Fn. omitted.]
3. The permittees, collectively or individually, *shall* facilitate the proper collection and management of used oil, toxic and hazardous materials, and other household wastes. Such facilitation *should* include educational activities, public information activities, and establishment of curbside or special collection sites managed by the permittees or private entities, such as solid waste haulers.
4. Within 18 months of adoption of this order, the permittees *shall* develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies. The permittees *should* evaluate the applicability of programs such as the Landscape Performance Certification Program to encourage efficient water use and to minimize runoff. [Fn. omitted.]
5. The permittees *shall* enforce their Water Quality Ordinance for all residential areas and activities. The permittees should encourage new developments to

[697] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 316 [Order No. R8-2009-0030, Section XI.1].

use weather-based evapotranspiration (ET) irrigation controllers. [Fn. omitted.]

6. Each permittee *shall* include an evaluation of its Residential Program in the annual report starting with the first annual report after adoption of this order.[698]

The claimants contend that all of these activities mandate a new program or higher level of service.[699] The claimants point to the Fact Sheet, which states in relevant part the following:

> The Fourth Term Permit has also added a residential program to be implemented by the permittees. This element *improves upon* the existing requirements within the third term permit, by *adding specific criteria associated with developing a more successful means* of reducing the discharge of pollutants from residential areas into the MS4 to the maximum extent practicable.[700]

The claimants also contend that the activities that "should" be done are in fact requirements imposed by the permit. In this respect, the claimants point to case law stating that the words should be interpreted in context, and they rely on the Fact Sheet to the test claim permit, which states that some "should" activities are requirements as follows: "The addition of the Residential Program to the fourth term permit includes requirements for permittees to identify residential areas and activities therein that are potential sources of pollutants and to develop Fact Sheets/BMPs for each and encourage residents to implement the pollution prevention measures."[701]

The Regional Board contends that Section XI. does not impose a state-mandated new program or higher level of service, and argues as follows:

> That the 2009 Permit, which is a fourth-term permit, contains additional or better-tailored requirements as necessary to achieve the federal MEP standard does not mean that the Permit is going beyond federal law, or imposing a new program or higher level of service. Indeed, the fact that the ROWD clearly states that a Model Residential Program exists in compliance with the prior term San Diego MS4 Permit strongly indicates that a challenged provisions requiring such a program

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[698] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 316-317 [Order No. R8-2009-0030, Section XI.] (emphasis added).

[699] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 96-97.

[700] Exhibit M, Claimants' Comments on Draft Proposed Decision, filed November 4, 2022, page 29, referring to Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 387 [Order No. R8-2009-0030, Fact Sheet (discussion of Municipal Inspection Program)].

[701] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 30, referring to Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 381 [Order No. R8-2009-0030, Fact Sheet (discussion of k. Public Education)].

for the areas within the Santa Ana Water Board's jurisdiction are consistent with the iterative nature of the federal MEP standard.[702]

The Commission finds that section XI. of the test claim permit imposes a state-mandated new program or higher level of service to develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies. All other provisions of section XI. are either not new, or not required, as described below.

a. Except for the requirement to develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowners associations, all other activities are not new, but are required by federal law and the prior permit, or are discretionary.

i. *Federal law requires that the stormwater program address discharges from residential areas, including prohibiting non-stormwater discharges and educational activities for the proper management and disposal of used oil and toxic materials.*

Federal law requires that permits for discharges from municipal storm sewers "shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants."[703] Federal regulations define "best management practices" as:

> . . . schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of "waters of the United States." BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.[704]

Federal regulations implementing the CWA require that all applicants for a MS4 permit have a management program that includes stormwater discharges from residential areas as follows:

- The program shall include "structural and source control measures to reduce pollutants from runoff from commercial *and residential areas*…," and the claimants acknowledge this federal law.[705] This shall include "A description of a program to reduce to the maximum extent practicable, pollutants in discharges from municipal separate storm sewers associated with the application of

[702] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 38.

[703] United States Code, title 33, section 1342(p)(3)(B)(iii) (Public Law 100-4).

[704] Code of Federal Regulations, title 40, section 122.2.

[705] Code of Federal Regulations, title 40, section 122.26(d)(2)(iv)(A); Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 96.

pesticides, herbicides and fertilizer which will include, as appropriate, controls such as educational activities . . . ."[706]

- "A description of a program, including inspections, to implement and enforce an ordinance…[which] shall address all types of illicit discharges; however the following category of non-storm water discharges or flows shall be addressed *where such discharges are identified by the municipality as sources of pollutants… landscape irrigation…lawn watering*, *individual residential car washing*…"[707]
- "A description of educational activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials."[708]
- Permittees are required by federal law to have adequate legal authority established by ordinance that prohibits illicit discharges to the MS4, and controls the discharge of spills, dumping, or disposal of materials other than stormwater to the MS4.[709]

The federal regulations thus require each permittee to have structural and source control measures to reduce runoff from residential areas; ordinances prohibiting illicit discharges, including irrigation and watering when identified as a source of pollutants, and residential auto washing, and "all [other] types of illicit discharges;" and an educational program to facilitate the proper management and disposal of used oil and toxic materials.

The federal regulations also require the permittees to assess the controls to estimate "reductions in loadings of pollutants from discharges of municipal storm sewer constituents from municipal storm sewer systems expected as the result of the municipal storm water quality management program."[710] In addition, federal law requires the submission of an annual report that describes the "status of implementing the components of the storm water management program that are established as permit conditions," "[p]roposed changes to the storm water management programs," and any "[r]evisions, if necessary, to the *assessment* of controls. . . ."[711, 712]

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[706] Code of Federal Regulations, title 40, section 122.26(d)(2)(iv)(A)(6).

[707] Code of Federal Regulations, title 40, section 122.26(d)(2)(iv)(B).

[708] Code of Federal Regulations, title 40, section 122.26(d)(2)(iv)(B)(6).

[709] Code of Federal Regulations, title 40, section 122.26(d)(2)(i).

[710] Code of Federal Regulations, title 40, section 122.26(d)(2)(v).

[711] Code of Federal Regulations, title 40, section 122.26(d)(2)(v); Code of Federal Regulations, title 40, section 122.42(c).

[712] In this respect, the claimant incorrectly states that federal law simply requires the reporting of the status of the components of the stormwater program. (Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 28.) Federal law also requires the

ii. *The prior permit addressed discharges from residential areas and claimants' 2003 DAMP, which was made enforceable by the prior permit, contained a residential program consistent with federal law.*

The claimant is correct that the prior permit did not have a section called "Residential Program," but the prior permit did impose requirements on the claimants to address discharges from residential areas as required by federal law. The claimants' 2003 DAMP and 2006 ROWD acknowledge there were residential program requirements in the prior permit, but they were stated in more general terms: "It should be noted that while the San Diego permit explicitly outlines a residential component, the Santa Ana permit is more general about residential requirements."[713] In fact, the claimants had a "model residential program" in their 2003 DAMP that fulfilled the requirements of the prior permit (Order No. R8-2002-0010) and the permit imposed by the San Diego Regional Water Quality Control Board (R9-2002-0001 governing the southern part of the county), which is discussed further below.[714]

The Findings in the prior permit recognized that "[u]rban runoff contains pollutants from privately owned and operated facilities, such as *residences*, businesses, private and/or public institutions, and commercial establishments."[715] Thus, Finding 15 of the prior permit states that it regulates urban storm water runoff from residential areas as follows:

> This order regulates urban storm water runoff from areas under the jurisdiction of the permittees. Urban storm water runoff includes those discharges from *residential*, commercial, industrial and construction areas within the permitted area and excludes discharges from feedlots, dairies, and farms (also see Finding 16). Storm water discharges consist of surface runoff generated from various land uses in all the hydrologic drainage areas that discharge into the water bodies of the U.S. The quality of these discharges varies considerably and is affected by land use activities, basin hydrology and geology, season, the frequency and duration of storm events, and the presence of illicit disposal practices and illegal connections.[716]

The first and second term permits (Order Nos. 90-71, 96-31) required the claimants to develop and implement a drainage area management plan (DAMP) to reduce pollutants in urban storm

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reporting of any revisions necessary to meet the MEP standard following the assessment of stormwater controls.

[713] Exhibit Q (7), DAMP, July 1, 2003, Section 9 – Existing Development, page 47 (Model Residential Program); Exhibit Q (18) Orange County ROWD, July 21, 2006, page 13.

[714] Exhibit Q (7), DAMP, July 1, 2003, Section 9 – Existing Development, page 47.

[715] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 405 [Order No. R8-2002-0010, Finding 28].

[716] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 402 [Order No. R8-2002-0010, Finding 15].

water runoff to the MEP.[717] As explained earlier, the DAMP is the principal guidance document for urban stormwater management programs in Orange County, and as described below, the claimants were required to continue implementing the programs and BMPs described in the DAMP under the prior permit. The prior permit states the following:

> 2. The purpose of this Order is to require the implementation of best management practices to reduce, to the maximum extent practicable, the discharge of pollutants from the MS4 in order to support reasonable further progress towards attainment of water quality objectives.
>
> *Permittees shall demonstrate compliance with all the requirements in this order* and specifically with Section III.2 Discharge Limitations and Section IV. Receiving Water Limitations, *through timely implementation of their DAMP* and any modifications, revisions, or amendments developed pursuant to this order approved by the Executive Officer or determined by the permittee to be necessary to meet the requirements of this order. *The DAMP, as included in the Report of Waste Discharge, including any approved amendments thereto, is hereby made an enforceable component of this order.*
>
> 3. *The permittees shall, at a minimum, implement all elements of the DAMP*. Where the dates in the DAMP are different than those of this order, the dates in this order shall prevail. Any proposed revisions to the DAMP shall be submitted with the Annual Report to the Executive Officer of the Regional Board for review and approval. All approved revisions to the DAMP shall be implemented as per the time schedules approved by the Executive Officer. In addition to those specific controls and actions required by (1) the terms of this Order and (2) the DAMP, each permittee shall implement additional controls, if any are necessary, to reduce the discharge of pollutants in storm water to the maximum extent practicable as required by this Order.[718]

The prior permit therefore required the permittees to:

- Implement management programs, monitoring programs, implementation plans and all BMPs outlined in the DAMP within each respective jurisdiction, and take any other actions as may be necessary to meet the MEP standard.
- Coordinate among their internal departments and agencies, as appropriate, to facilitate the implementation of this Order and the DAMP.
- Establish and maintain adequate legal authority, as required by the Federal Storm Water Regulations.

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[717] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 403, 465 [Order No. R8-2002-0010, Finding 21 and Fact Sheet].

[718] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 433-434 [Order No. R8-2002-0010] (emphasis added).

- Conduct storm drain system inspections and maintenance in accordance with the criteria developed by the principal permittee. Take appropriate enforcement actions for illicit discharges to the MS4 system owned or controlled by the copermittee.
- Respond to emergency situations, such as accidental spills, leaks, illicit discharges and illegal connections, etc., to prevent or reduce the discharge of pollutants to storm drain systems and waters of the U.S.
- Monitor the implementation of the plans and programs required by this order and determine their effectiveness in protecting beneficial uses.[719]

In addition, all permittees were required to prohibit non-stormwater discharges from entering into the MS4 in accordance with federal regulations.[720] The permittees were also required to review their water quality ordinances and provide a report on the effectiveness of these ordinances and associated enforcement programs, in prohibiting the following types of discharges (including residential discharges) to the MS4s: discharges resulting from the cleaning, repair, or maintenance of any type of equipment, machinery, or facility, including motor vehicles, and concrete mixing equipment; runoff from material storage areas or uncovered receptacles that contain chemicals, fuels, grease, oil, or other hazardous materials; discharges of runoff from the washing of toxic materials from paved or unpaved areas; discharges of pool or fountain water containing chlorine, biocides, or other chemicals; pool filter backwash containing debris and chlorine; and pet waste, yard waste, litter, debris, sediment, etc.[721]

In addition, all permittees were required to comply with receiving water limitations through the DAMP:

> The DAMP and its components shall be designed to achieve compliance with receiving water limitations. It is expected that compliance with receiving water limitations will be achieved through an iterative process and the application of increasingly more effective BMPs. The permittees shall comply with Sections III.2 and IV of this order through timely implementation of control measures and other actions to reduce pollutants in urban storm water runoff in accordance with the DAMP and other requirements of this order, including any modifications thereto.[722]

If the permittees detected an exceedance of water quality standards, then the permittees "shall revise the DAMP and monitoring program to incorporate the approved modified BMPs that have been and will be implemented, the implementation schedule, and any additional monitoring

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[719] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 410-411 [Order No. R8-2002-0010].

[720] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 412-413 [Order No. R8-2002-0010].

[721] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 415 [Order No. R8-2002-0010].

[722] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 413 [Order No. R8-2002-0010].

required;" and "implement the revised DAMP and monitoring program in accordance with the approved schedule."[723]

The prior permit further required the permittees to "continue to implement the public education efforts already underway and shall implement the most effective elements of the comprehensive public and business education strategy contained in the Report of Waste Discharge/DAMP."[724] "The goal of the public and business education program shall be to target 100% of the *residents*, including businesses, commercial and industrial establishments."[725]

By July 1, 2002, the permittees had to "develop public education materials to encourage the public to report (including a hotline number and web site to report) illegal dumping and unauthorized, non-storm water discharges from *residential*, industrial, construction and commercial sites into public streets, storm drains and other waterbodies; clogged storm drains; faded or missing catch basin stencils and general storm water and BMP information. This hotline and web site shall be included in the public and business education program and shall be listed in the governmental pages of all regional phone books."[726]

By July 1, 2003, the permittees had to "develop BMP guidance for the control of those potentially polluting activities not otherwise regulated by any agency including guidelines *for the household use of fertilizers, pesticides, herbicides and other chemicals*, and guidance for mobile vehicle maintenance, carpet cleaners, commercial landscape maintenance, and pavement cutting. These guidance documents shall be distributed to the public, trade associations, etc., through participation in community events, trade association meetings and/or mail."[727]

By July 1 of each year, the permittees were required to evaluate the DAMP to determine whether any revisions are necessary in order to reduce pollutants in MS4 discharges to the maximum extent practicable.[728]

The claimants' 2003 DAMP, section 9 on Existing Development, complies with these requirements and addresses discharges from residential development, common interest areas, and homeowners' associations.[729] "Model programs were developed for residential and homeowner

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[723] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 414 [Order No. R8-2002-0010].

[724] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 427 [Order No. R8-2002-0010].

[725] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 428 [Order No. R8-2002-0010].

[726] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 428 [Order No. R8-2002-0010].

[727] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 428 [Order No. R8-2002-0010].

[728] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 432-433 [Order No. R8-2002-0010].

[729] Exhibit Q (7), DAMP, July 1, 2003, Section 9 – Existing Development, page 1.

association discharges to address pollution prevention, source identification, prioritization, BMP implementation, inspection, monitoring, enforcement, and program report and assessment."[730] The "Model Residential Program" begins on page 47 of the 2003 DAMP, which was developed to comply with the prior permit in this case (Order No. R8-2002-0010):

> The Residential Model Program provides a framework and a process for a municipality to follow consistent procedures for implementing existing residential development components, including:
>
> • Development of a source identification procedure and prioritize residential areas bases on proximity to ESAs within the Permittee's jurisdiction.
>
> • Identification of Best Management Practices (BMPs) most appropriate for each area, based on residential activities.
>
> • Implementation of program, focusing on public outreach and education, but including enforcement activities.
>
> • Reporting program for the assessment of program effectiveness.[731]

Section 9.5.3.1 of the DAMP addresses BMPs designated for high threat residential areas and activities and states the following:

> A set of BMPs has been designated for high threat residential areas and activities. All high priority activities are assumed to occur in all residential areas and that no other residential activities are known to be a significant threat to receiving water quality. As part of the program assessment, Permittees will review available data to determine if additional activities should be considered high threat, if the designated set of BMPs should be expanded, and whether additional residential areas should be considered for enhanced implementation.
>
> Where residential areas and activities generate pollutants for which the receiving water is 303(d) listed, the Permittees may require the implementation of optional BMP controls as part of their enhanced implementation program (see Section 9.5.4). For residential areas directly adjacent to or directly discharging to ESAs, including coastal waters, the Permittees may also be required to implement additional controls to sufficiently reduce pollutant loads. [732]

Section 9.5.3.2 states that BMP Fact Sheets have been prepared for the following residential activities: automobile repair and maintenance; automobile washing; automobile parking; home and garden care; disposal of pet wastes; disposal of green waste; household hazardous waste; and water conservation.[733]

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[730] Exhibit Q (7), DAMP, July 1, 2003, Section 9 – Existing Development, page 2.

[731] Exhibit Q (7), DAMP, July 1, 2003, Section 9 – Existing Development, page 48.

[732] Exhibit Q (7), DAMP, July 1, 2003, Section 9 – Existing Development, page 56.

[733] Exhibit Q (7), DAMP, July 1, 2003, Section 9 – Existing Development, page 57.

The DAMP further states that public education and outreach activities designed to inform residents about BMPs are critical components to the implementation of the residential program. "Pollution prevention BMPs for the residential program rely on public education and outreach to affect change in behavior, either in curtailing activities generating pollutants, or to purchase alternative products with lower risk of contaminating runoff."[734]

Section 9.5.4.3 of the DAMP contains the enforcement provisions as follows: "Because enforcement will be conducted in steps for specific residences, the Permittee must provide for an inventorying of violations, and where a particular resident is in the enforcement scheme. The enforcement steps include: Notice of Non-compliance; Administrative Compliance Order; Cease and Desist Orders; Infractions and Misdemeanors."[735]

Section 9.5.5 of the DAMP addresses assessment and reporting and states that "Each Permittee is required to prepare a program report regarding their efforts in the residential program. The residential program report will in turn become part of the Permittee's Annual Report submitted to the Principle Permittee and the appropriate RWQCB."[736] Section 9.5.5.2 addresses the effectiveness assessment strategy, which results in an annual assessment and a report for the residential program.[737]

Section 6 of the DAMP addresses the claimants' public education program.[738] That section recognizes that "federal regulations require, as part of the DAMP, a description of educational activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials."[739] An Exhibit to the DAMP states that "The County of Orange has a significant household hazardous waste collection program and a used oil recycling outreach program, both of which deliver messages that directly affect the volume of pollutants that end up in the storm drain system."[740] Section 6 further explains that the "First, Second, and Third Term Permits similarly specified that the Permittees continue to implement the public education efforts already underway, participate in joint outreach efforts to ensure that a consistent message on stormwater pollution prevention is brought to the public, encourage the public to report illegal dumping, and develop BMP guidance for the control of those potentially polluting activities not otherwise regulated by any agency."[741] That section also states that "[o]ne of the focuses of during the third term permit was "Outreach for residential

[734] Exhibit Q (7), DAMP, July 1, 2003, Section 9 – Existing Development, page 57.

[735] Exhibit Q (7), DAMP, July 1, 2003, Section 9 – Existing Development, page 61.

[736] Exhibit Q (7), DAMP, July 1, 2003, Section 9 – Existing Development, page 61.

[737] Exhibit Q (7), DAMP, July 1, 2003, Section 9 – Existing Development, page 63.

[738] Exhibit Q (6), DAMP, July 1, 2003, Section 6 – Public Education.

[739] Exhibit Q (6), DAMP, July 1, 2003, Section 6 – Public Education, page 1.

[740] Exhibit Q (8), DAMP, July 1, 2003, Exhibit 6.1. Recommendations for Expanding the Outreach Program, page 13.

[741] Exhibit Q (6), DAMP, July 1, 2003, Section 6 – Public Education, page 1.

areas and activities focusing on the main types of problems created by residential activities and the BMPs that can be employed to reduce those problems."[742]

iii. *Except for the requirement to develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowners associations, all other activities required by section XI. of the test claim permit are not new, but are required by federal law and the prior permit.*

Section XI. states that the permittees "shall" perform the following required activities:

- Develop and implement a residential program to reduce the discharge of pollutants from residential facilities to the MS4s consistent with the maximum extent practicable standard, in order to prevent discharges from the MS4s from causing or contributing to a violation of water quality standards in the receiving waters.
- Encourage residents to implement pollution prevention measures.
- Collectively or individually facilitate the proper collection and management of used oil, toxic and hazardous materials, and other household wastes.
- Within 18 months of adoption, develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies.
- Enforce water quality ordinances for all residential areas and activities.
- Include an evaluation of the residential program in the annual reporting.[743]

Except for the requirement to develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations, the remaining activities are not new.

As indicated above, federal law explicitly requires that the permit application contain a description of structural and source control measures to reduce pollutants from residential areas; a description of a program to facilitate reporting of illicit discharges (including illegal dumping and activities such as residential car washing, landscape irrigation, and lawn watering); a description of educational activities, public information activities, and other appropriate activities to facilitate proper management and disposal of used oil and toxic materials; adequate legal authority though the adoption of local ordinances to control and prohibit illicit discharges to the MS4; and an assessment of all program areas and an annual report on the status of implementation of the residential program activities and any revisions necessary following the assessment.[744]

The prior permit also required the claimants to prohibit all non-stormwater discharges (which includes used oil, toxic and hazardous materials, and other household wastes); implement

[742] Exhibit Q (6), DAMP, July 1, 2003, Section 6 – Public Education, page 10.

[743] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 316-317 [Order No. R8-2009-0030, Section XI.].

[744] Code of Federal Regulations, title 40, section 122.26(d)(2).

management programs, monitoring programs, implementation plans and all BMPs outlined in the DAMP, and take any other actions as may be necessary to meet the MEP standard to meet the receiving water limitations and discharge prohibitions; continue to implement public education efforts that targeted residents; develop public education materials to encourage the public to report (including a hotline number and web site to report) illegal dumping and unauthorized, non-storm water discharges; develop BMP guidance for the control of those potentially polluting activities not otherwise regulated by any agency including guidelines for the household use of fertilizers, pesticides, herbicides and other chemicals; and annually evaluate the DAMP to determine whether any revisions are necessary in order to reduce pollutants in MS4 discharges to the MEP.[745] And the claimants' 2003 DAMP, made enforceable by the prior permit, complied with this prior law.[746]

Accordingly, the following permit terms are required by prior state and federal law, and are *not* new:

- Develop and implement a residential program to reduce the discharge of pollutants from residential facilities to the MS4s consistent with the maximum extent practicable standard, in order to prevent discharges from the MS4s from causing or contributing to a violation of water quality standards in the receiving waters.
- Encourage residents to implement pollution prevention measures.
- Collectively or individually facilitate the proper collection and management of used oil, toxic and hazardous materials, and other household wastes.
- Enforce water quality ordinances for all residential areas and activities.
- Include an evaluation of the residential program in the annual reporting.[747]

However, there are no provisions in federal law or the prior permit requiring the claimants to develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies. Thus, this requirement is new.

Section XI. of the test claim permit also identifies activities that the claimants "should" perform:

- As part of the program, permittees "should" identify residential areas and activities that are potential sources of pollutants and develop Fact Sheets and BMPs. This "should" include, at a minimum, residential auto washing and maintenance activities; use and

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[745] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 410-433 [Order No. R8-2002-0010].

[746] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 433-434 [Order No. R8-2002-0010]; Exhibit Q (7), DAMP, July 1, 2003, Section 9 – Existing Development; Exhibit Q (6), DAMP, July 1, 2003, Section 6 – Public Education; Exhibit Q (8), DAMP, July 1, 2003, Exhibit 6.1, Recommendations for Expanding the Outreach Program.

[747] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 316-317 [Order No. R8-2009-0030, Section XI.].

disposal of pesticides, herbicides, fertilizers and household cleaners; and collection and disposal of pet waste.

- When encouraging residents to implement pollution prevention measures, permittees "should" work with sub-watershed groups to disseminate the latest research information, such as the UC Master Gardeners Program and USDA's Backyard Conservation Program.
- When facilitating the proper collection and management of used oil, toxic and hazardous materials, and other household wastes, permittees "should" include educational activities, public information activities, and establish curbside or special collection sites managed by the permittees or private entities, such as solid waste haulers.
- When developing the pilot program to control pollutant discharges from common areas and areas managed by associations or companies, the permittees "should" evaluate the applicability of programs such as the Landscape Performance Certification Program to encourage efficient water use and to minimize runoff.[748]

The claimants contend that "should" really means "shall" when reviewed in context of the regulatory scheme.[749] The Commission agrees that these provisions have to be read in context, and that the first bullet above (which encourages the identification residential areas and activities that are potential sources of pollutants and the development of Fact Sheets and BMPs for the list of residential discharges) falls within the requirements of existing federal law and the prior permit. Federal law requires the stormwater program to have "structural and source control measures to reduce pollutants from runoff from commercial *and residential areas*…."[750] The prior permit required the claimants to implement the BMPs outlined in the DAMP within each respective jurisdiction, and take any other actions as may be necessary to meet the MEP standard. The prior permit also required the claimants, by July 1, 2003, to "develop BMP guidance for the control of those potentially polluting activities not otherwise regulated by any agency including guidelines for the household use of fertilizers, pesticides, herbicides and other chemicals."[751] And Section 9.5.3.2 of the DAMP, which was made enforceable by the prior permit, states that BMP Fact Sheets have been prepared for automobile repair and maintenance; automobile washing; automobile parking; home and garden care; disposal of pet wastes; disposal of green waste; household hazardous waste; and water conservation.[752]

Similarly, parts of the third bullet above ("when facilitating the proper collection and management of used oil, toxic and hazardous materials, and other household wastes, permittees

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[748] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 316-317 [Order No. R8-2009-0030, pp. 46-47, Section XI.].

[749] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 30.

[750] Code of Federal Regulations, title 40, section 122.26(d)(2)(iv)(A)(6).

[751] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 410-411, 428, 433-434 [Order No. R8-2002-0010].

[752] Exhibit Q (7), DAMP, July 1, 2003, Section 9 – Existing Development, page 57.

'should' include educational activities, public information activities . . ."), are already required by federal law. Federal law requires that the program include "educational activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials."[753] The claimants' report that "The County of Orange has a significant household hazardous waste collection program and a used oil recycling outreach program, both of which deliver messages that directly affect the volume of pollutants that end up in the storm drain system."[754] Thus, these "should" activities are already required by federal law and the prior permit, and are not new.

The remaining "should" activities are truly discretionary. There is nothing in the law and no evidence in the record that would support a finding that the remaining "should" activities are required by the test claim permit or by federal law. Thus, the word "should" needs to be interpreted based on its plain and ordinary meaning.

> In the first step of the interpretive process we look to the words of the statute themselves. [Citations.] The Legislature's chosen language is the most reliable indicator of its intent because ' "it is the language of the statute itself that has successfully braved the legislative gauntlet." ' [Citation.] We give the words of the statute 'a plain and commonsense meaning' unless the statute specifically defines the words to give them a special meaning.[755]

Webster's II New College Dictionary states that the word "should" is used to express a probability or an expectation, or to express conditionality or contingency.[756] Thus, while the Regional Board expects the permittees to perform the required residential program activities in the manner outlined in Section XI. of the permit, there is nothing in the law or any evidence in the record to support a finding that that the remaining "should" activities are mandated by the test claim permit. Instead, it is up to the permittees to decide how best to perform the required activities under their residential program in order to reduce pollutants consistently with the Clean Water Act.

Accordingly, the only new requirement imposed by section XI. of the test claim permit is the following:

- Within 18 months of adoption, develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies.

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[753] Code of Federal Regulations, title 40, section 122.26(d)(2)(iv)(B)(6).

[754] Exhibit Q (8), DAMP, July 1, 2003, Exhibit 6.1., Exhibit 6.1, Recommendations for Expanding the Outreach Program.

[755] *MacIsaac v. Waste Management Collection & Recycling, Inc.* (2005) 134 Cal.App.4th 1076, 1082–1083.

[756] Webster's II New College Dictionary, page 1022.

b. The new requirement to develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies is mandated by the state.

Federal law does not explicitly require a "pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies." It may be that the pilot program for common interest area discharges is related to the proper use of fertilizers or excess irrigation or lawn watering discharges, but there is no evidence in the record establishing such link, and no findings by the Regional Board directly on point. Instead, the record shows that in response to comments the Regional Board replaced the pollution prevention requirements for common interest areas with a "pilot program."[757]

Applying the Supreme Court's dual test articulated in *Department of Finance*, the Commission finds that the pilot program requirement is neither explicitly required nor fairly implied by the plain language of the federal regulations; and, there is no evidence in the record that this permit term is the only means by which to comply with federal law to reduce the discharge of pollutants.[758] Without such findings, the Commission is not required to defer to the Regional Board's determination of what permit terms are necessary to satisfy federal law, including the maximum extent practicable standard.[759, 760]

Thus, the Commission finds that the following requirement is mandated by the state:

- Within 18 months of adoption, develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies.[761]

c. The new requirement to develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies constitutes a new program or higher level of service.

Article XIII B, section 6 requires reimbursement whenever the Legislature or any state agency mandates a new program or higher level of service that results in costs mandated by the state. "New program or higher level of service" is defined as "programs that carry out the

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[757] Compare Exhibit Q (14), First Draft of Tentative Order No. R8-2008-0030, page 45 [Administrative Record on Permit No. R8-2009-0030, Part I] with Exhibit Q (15), Fourth Draft of Permit, Order No. R8-2009-0030, page 46 [Administrative Record on Permit No. R8-2009-0030, Part III].

[758] *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 768; 771.

[759] *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 769 ["The State, however, provides no authority for the proposition that, absent such a finding, the Commission should defer to a state agency as to whether requirements were state or federally mandated."].

[760] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 38.

[761] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 316-317 [Order No. R8-2009-0030].

governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state."[762]

The Regional Board argues that the test claim permit, as a whole, is not subject to article XIII B, section 6 because the permit does not impose requirements unique to local government. The Board asserts that the entire test claim permit is a law of general application, in that (1) NPDES permits are required for all public and private dischargers; (2) the requirements of NPDES stormwater permits are more stringent for private dischargers than for MS4 permittees; and (3) "the government requirements apply to all governmental entities that operate MS4s, including state, Tribal, and federal facilities; local government is not singled out."[763]

The Commission disagrees and finds that this requirement imposes a new program or higher level of service. The challenged requirement is unique to local government. The test claim "permit applies by its terms only to the local governmental entities identified in the permit; no one else is bound by it."[764] Moreover, the requirement to develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies imposes a governmental service to the public "because it, together with other requirements, will reduce pollution entering stormwater drainage systems and receiving waters." This requirement is expressly intended "to reduce the discharge of pollutants from residential facilities to the MS4s consistent with the maximum extent practicable standard so as to prevent discharges from the MS4s from causing or contributing to a violation of water quality standards in the receiving waters."[765]

Accordingly, the Commission finds that the activity to develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies imposes a new program or higher level of service within the meaning of article XIII B, section 6 of the California Constitution.

4. Sections XIII.1, XIII.4, and XIII.7 of the Test Claim Permit Impose a State-Mandated New Program or Higher Level of Service For Specified New Public Education and Outreach Requirements.

Section XIII. of the Permit states that permittees "shall continue to implement the public education efforts already underway and…[b]y July 1, 2012, the permittees shall complete a public awareness survey to determine the effectiveness of the current public and business education strategy and any need for changes to the current multimedia public education

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[762] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56; *Department of Finance v. Commission on State Mandates* (2021) 59 Cal.App.5th 546, 629.

[763] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 17.

[764] *Department of Finance v. Commission on State Mandates* (2021) 59 Cal.App.5th 546, 630; Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 273 [Order No. R8-2009-0030].

[765] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 316 [Order No. R8-2009-0030].

efforts."[766] "The findings of the survey and any proposed changes to the current program shall be included in the annual report for 2011-2012."[767] The Permit further provides that permittees "shall sponsor or staff a storm water table or booth at community, regional, and/or countywide events to distribute public education materials to the public."[768] Additionally, permittees shall continue to participate in the Public Education Committee, which shall meet at least twice per year, and shall continue to make recommendations for any changes to the public and business education program.[769] The Permit requires permittees to "continue their outreach and other public education activities," and states that "[e]ach permittee should try to the reach the following sectors: manufacturing facilities; mobile service industry; commercial, distribution and retail sales industry; residential/commercial landscape construction and services industry; residential and commercial construction industry; and residential and community activities."[770] And, the Permit requires permittees to administer individual or regional workshops for each of the aforementioned sectors by July 1, 2010 and annually thereafter, and directs commercial and industrial facility inspectors to distribute educational information (Fact Sheets) during their inspection visits.[771] The Permit also requires permittees to "further develop and maintain public education materials to encourage the public to report illegal dumping and unauthorized, non-storm water discharges from residential, industrial, construction and commercial sites into public streets, storm drains and to surface waterbodies and their tributaries; clogged storm drains; faded or missing catch basin stencils and general storm water and BMP information."[772] The Permit requires, within 12 months of adoption, the permittees "shall further develop and maintain BMP guidance for the control of those potentially polluting activities identified during the previous permit cycle, which are not otherwise regulated by any agency…" including household use of fertilizers and pesticides, mobile vehicle maintenance, carpet cleaning services, commercial landscape maintenance, and pavement cutting; the guidance documents "shall be distributed to the public, trade associations, etc., through participating in community events, trade association

[766] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 332 [Order No. R8-2009-0030, Section XIII.1].

[767] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 332 [Order No. R8-2009-0030, Section XIII.1].

[768] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 332 [Order No. R8-2009-0030, Section XIII.2].

[769] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 332 [Order No. R8-2009-0030, Section XIII.3].

[770] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 332 [Order No. R8-2009-0030, Section XIII.4].

[771] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 332 [Order No. R8-2009-0030, Section XIII.4].

[772] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 333 [Order No. R8-2009-0030, Section XIII.5].

meetings, and/or by mail."[773] Finally, Section XIII. of the permit requires the principal permittee, in collaboration with the co-permittees, to develop and implement a mechanism for public participation in the updating and implementation of DAMPs, WQMP guidance, and Fact Sheets for "various activities," and the public shall be informed of the availability of these documents through public notices in local newspapers, County or city websites, local libraries, city halls, or courthouses.[774]

a. Some of the requirements of the Public Education and Outreach Program are new, as compared with the prior permit.

The claimants acknowledge that the public education requirements of the test claim permit are largely similar to the public education requirements of the prior permit:

> The 2002 Permit established many of the programs in the 2009 Permit. The 2009 Permit, however, includes several new requirements that were either suggested in the 2002 Permit, or not included in the 2002 Permit.[775]

However, the claimants allege that the test claim permit "imposes at least six new public education requirements…" These include: (1) a public awareness survey, to be completed by July 1, 2012; (2) recommendations and " a reevaluation of audiences and key messages" by the Public Education Committee; (3) administering individual or regional workshops beginning July 1, 2010 and annually thereafter; (4) "further develop and maintain public education materials" including a hotline number and web site to report illegal dumping and illicit discharges; (5) "further develop and maintain BMP guidance for the control of those potentially polluting activities identified during the previous permit cycle; and (6) develop a mechanism for public participation in the updating and implementation of DAMPs, WQMP guidance, and Fact Sheets, and publicize the availability of those documents in local newspapers.[776]

Some of the activities identified by the claimants are new, but some are substantially the same as the Third Term Permit. The Third Term Permit required the permittees to "continue to implement the public education efforts already underway and…implement the most effective elements of the comprehensive public and business education strategy…"[777] Therefore the existence of the public education program is established by the Third Term Permit.

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[773] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 333 [Order No. R8-2009-0030, Section XIII.6].

[774] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 333 [Order No. R8-2009-0030, Section XIII.7].

[775] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 93.

[776] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 93-94.

[777] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 427 [Order No. R8-2002-0010].

The Third Term Permit also required a public education survey: by July 1, 2002, permittees "shall complete a public awareness survey to determine the effectiveness of the current public and business education strategy."[778] The plain language of the Third Term Permit indicates that this was to be a one-time activity, and the test claim permit requires permittees to repeat the activity. The additional public awareness survey required by July 1, 2012 under the test claim permit and the requirement to include the findings of the survey and any proposed changes to the current program in the annual report for 2011-2012, constitute new activities.

The Third Term Permit also required permittees, "[w]hen feasible," to participate in joint outreach with other programs, and provided that permittees "shall sponsor or staff a storm water table or booth" at community or regional events.[779] Accordingly, the activity of sponsoring or staffing a table or booth at community events is not new.

The Third Term Permit required establishment of a Public Education Committee, which is required to meet at least twice per year, and which "shall make recommendations for any changes to the public and business education program."[780] The Public Education Committee was required, by July 1, 2002, to develop BMP guidance for restaurants, automotive service centers, and gas stations, which industrial facility inspectors would distribute during inspections.[781] The test claim permit, as noted above, requires permittees to *continue to participate* in the Public Education Committee, and to *continue to make recommendations* for any changes to the public and business education program.[782] These requirements are not new, based on the plain language. Further, the test claim permit requires permittees to "continue their outreach and other public education activities," and states that "[e]ach permittee should try to the reach the following sectors: manufacturing facilities; mobile service industry; commercial, distribution and retail sales industry; residential/commercial landscape construction and services industry; residential and commercial construction industry; and residential and community activities."[783] This provision, based on the plain language, suggests an expansion of the scope of the public

[778] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 427 [Order No. R8-2002-0010].

[779] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 427 [Order No. R8-2002-0010].

[780] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 428 [Order No. R8-2002-0010].

[781] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 428 [Order No. R8-2002-0010].

[782] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 332 [Order No. R8-2009-0030].

[783] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 332 [Order No. R8-2009-0030].

education program; however, the phrase "should try to reach…" is not mandatory.[784] This does not, therefore, constitute a new required activity.

The Third Term Permit required permittees to "develop public education materials to encourage the public to report (including a hotline number and web site to report) illegal dumping and unauthorized, non-storm water discharges…clogged storm drains; faded or missing catch basin stencils and general storm water and BMP information."[785] The Third Term Permit required permittees, by July 1, 2003, to develop BMP guidance "for the control of those potentially polluting activities not otherwise regulated by any agency," including household use of fertilizers or pesticides, mobile vehicle maintenance, carpet cleaners, commercial landscape maintenance, and pavement cutting."[786] The Third Term Permit stated that "[t]hese guidance documents shall be distributed to the public, trade associations, etc., through participation in community events, trade association meetings and/or mail."[787] The test claim permit states that permittees shall "*further develop and maintain* public education materials to encourage the public to report illegal dumping and unauthorized, non-storm water discharges…"[788] And, the test claim permit requires that within 12 months of adoption, the permittees "shall *further develop and maintain* BMP guidance for the control of those potentially polluting activities identified during the previous permit cycle, which are not otherwise regulated by any agency…"[789] These activities are substantially the same as under the prior permit, and to continue to develop and maintain activities previously required does not increase the level of service provided to the public.

Based on a comparison between the Third Term Permit and the test claim permit, the following requirements of the Public Education Program are new:

- By July 1, 2012, the one-time activity to complete a public awareness survey to determine the effectiveness of the current public and business education strategy, and to

[784] Webster's II New College Dictionary states that the word "should" is used to express a probability or an expectation, or to express conditionality or contingency. (Webster's II New College Dictionary, page 1022.) The word "should" is not mandatory.

[785] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 428 [Order No. R8-2002-0010].

[786] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 428 [Order No. R8-2002-0010].

[787] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 428 [Order No. R8-2002-0010].

[788] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 333 (emphasis added) [Order No. R8-2009-0030].

[789] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 333 (emphasis added) [Order No. R8-2009-0030].

include the findings of the survey and any proposed changes to the current program in the annual report for 2011-2012.[790]

- Permittees shall administer individual or regional workshops for each of the specified sectors (manufacturing facilities; mobile service industry; commercial, distribution, and retail sales industry; residential/commercial landscape construction and service industry; residential and commercial construction industry; and residential and community activities) by July 1, 2010 and annually thereafter, and commercial and industrial facility inspectors shall distribute educational information (Fact Sheets) during their inspection visits.[791]
- The principal permittee, in collaboration with the co-permittees, shall develop and implement a mechanism for public participation in the updating and implementation of DAMPs, WQMP guidance, and Fact Sheets for "various activities." The public shall be informed of the availability of these documents through public notices in local newspapers, county or city websites, local libraries, city halls, or courthouses.[792]

b. The new requirements of the Public Education Program are mandated by the state, and constitute a new program or higher level of service.

The claimants acknowledge that the federal regulations "provide general public education requirements for large municipal stormwater permits," but "do not, however, require anywhere near the level of specificity that the Santa Ana RWQCB has included in the 2009 Permit," and, thus they assert the activities are mandated by the state:[793]

> Title 40, sections 122.26(d)(2)(iv)(A)(6), (B)(6), and (D)(4) of the Code of Federal Regulations provide general public education requirements for large municipal stormwater permits. These Federal Regulations require MS4 Permits to require a public education program. The elements that federal regulations require be part of a public education program are very limited, namely educational activities to facilitate the proper management and disposal of used oil and toxic materials, and appropriate educational and training measures for construction site operators. The regulations do not specifically require workshops for the development of each of the documents required by the 2009 Permit, nor do they require the industry workshop mandated by the 2009 Permit. Because of the lack of specific requirements related to the public education program in the federal regulations, federal law grants Permittees latitude to determine the most

[790] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 332 [Order No. R8-2009-0030, Section XIII.1].

[791] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 332 [Order No. R8-2009-0030, Section XIII.4].

[792] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 333 [Order No. R8-2009-0030, Section XIII.7].

[793] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 92.

> efficient and effective way to solicit that public participation. The prescriptive requirements contained in the 2009 Permit go well beyond what federal law requires.[794]

The claimants further assert that while the prior permit included a public education component, the findings of the test claim Permit "do not set forth any facts to suggest that the additional Public Education Requirement[s] of the [the test claim] Permit were necessary to address any deficiencies of the existing program."[795] Responding specifically to the Supreme Court's test articulated in *Department of Finance*, the claimants argue:

> The specificity and scope of the public education requirements in the Permit similarly go well beyond federal regulatory authority, and demonstrate that the SAWB was exercising its discretion to impose state mandated requirements on the permittees. As the Rebuttal notes, the SAWB set forth no findings that the additional public education requirements were required "to address any deficiencies of the existing program" or were "necessary to address specific pollutants of concern…" Rebuttal at 45. Given the lack of such findings, it cannot be argued the additional public education conditions "were the only means by which the [MEP] standard could be implemented," where deference to the board's expertise in reaching that finding would be appropriate. Slip op. at 22.[796]

The Regional Board argues that federal regulations require the co-permittees to include a description of public education efforts in their permit application (here, their ROWD), and that "[w]hen translating these application requirements into permit terms, the [Regional Board] must comply with the MEP standard."[797] The Regional Board reasons that because MEP is an "iterative, evolving standard," it is expected that "the 2009 Permit, which is a fourth-term permit, contains additional or better-tailored requirements as necessary to achieve the federal MEP standard."[798] The Regional Board holds that this "does not mean that the Permit is going beyond federal law, or imposing a new program or higher level of service."[799] Further, the Regional Board argues that the Order contains "few discernible differences" from the prior permit: "the 2009 Permit generally requires continuation and fine-tuning of the ongoing efforts developed pursuant to the 2002 Permit."[800] Responding specifically to *Department of Finance*, the Regional Board argues that the decision "has limited applicability because, unlike the 2001 Los

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[794] Exhibit E, Claimants' Rebuttal Comments, Volume 1, filed June 17, 2011, page 51 [citing 40 C.F.R. §§ 122.26(d)(2)(iv)(A)(6); 122.26(d)(2)(iv)(B)(6); 122.26(d)(2)(iv)(D)(4)].

[795] Exhibit E, Claimants' Rebuttal Comments, Volume 1, filed June 17, 2011, page 51.

[796] Exhibit J, Claimants' Response to the Request for Additional Briefing, filed October 21, 2016, page 13.

[797] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 37.

[798] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 38.

[799] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 38.

[800] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 38.

Angeles Permit, the 2009 Permit includes a finding that the requirements implement only federal law."[801] The Regional Board cites Finding 3, which states:

> In accordance with Section 402(p) (2) (B) (iii) of the CWA and its implementing regulations, this order requires permittees to develop and implement programs and policies necessary to reduce the discharge of pollutants in urban storm water runoff to waters of the US to the maximum extent practicable (MEP).[802]

In addition, the Regional Board argues that because it has made such findings, it is entitled to deference on the question of the scope of the federal mandate underlying the Permit.[803]

As discussed above, *Department of Finance* requires the Commission to analyze whether each disputed permit term (i.e., each requirement) is expressly required by federal law or, alternatively, is required to reduce pollutants to the maximum extent practicable. In this, the Commission is not required to defer to the Regional Board's determinations on what is required to be included in the permit unless the Regional Board has made findings that the disputed permit terms are the only means by which MEP can be satisfied.[804]

Here, there is nothing in federal law that is sufficiently specific as to require the new permit requirements. As the claimants acknowledge, federal law contains general requirements regarding public education in 40 C.F.R Part 122.26(d)(iv)(A)(6); (B)(6); and (D)(4).[805] Those provisions state, respectively:

> [122.26(d)(iv)(A)] Proposed management programs shall describe priorities for implementing controls. Such programs shall be based on:
>
> [¶…¶]
>
> (6) A description of a program to reduce to the maximum extent practicable, pollutants in discharges from municipal separate storm sewers associated with the application of pesticides, herbicides and fertilizer which will include, as appropriate, controls such as educational activities, permits, certifications and

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[801] Exhibit I, Regional Board's Response to the Request for Additional Briefing, filed October 21, 2016, page 2.

[802] See Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 272 [Order No. R8-2009-0030].

[803] Exhibit I, Regional Board's Response to the Request for Additional Briefing, filed October 21, 2016, page 3.

[804] *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 768 ["Had the Regional Board found, when imposing the disputed permit conditions, that those conditions were the only means by which the maximum extent practicable standard could be implemented, deference to the board's expertise in reaching that finding would be appropriate."].

[805] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 92.

other measures for commercial applicators and distributors, and controls for application in public right-of-ways and at municipal facilities.[806]

[122.26(d)(iv)(B)] A description of a program, including a schedule, to detect and remove (or require the discharger to the municipal separate storm sewer to obtain a separate NPDES permit for) illicit discharges and improper disposal into the storm sewer. The proposed program shall include:

[¶…¶]

(6) A description of educational activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials; and[807]

[122.26(d)(iv)(D)] A description of a program to implement and maintain structural and non-structural best management practices to reduce pollutants in storm water runoff from construction sites to the municipal storm sewer system, which shall include:

[¶…¶]

(4) A description of appropriate educational and training measures for construction site operators.[808]

Nothing in these provisions, nor anywhere else in the federal law, requires the specific activities challenged in this Test Claim. Moreover, there is no evidence in the record that *these requirements* are the only means by which MEP can be met.[809]

Accordingly, the Commission finds that the following activities are new state-mandated activities:

- By July 1, 2012, the one-time activity to complete a public awareness survey to determine the effectiveness of the current public and business education strategy, and to include the findings of the survey and any proposed changes to the current program in the annual report for 2011-2012.[810]
- Permittees shall administer individual or regional workshops for each of the specified sectors (manufacturing facilities; mobile service industry; commercial, distribution, and

[806] Code of Federal Regulations, title 40, section 122.26(d)(iv)(A).

[807] Code of Federal Regulations, title 40, section 122.26(d)(iv)(B).

[808] Code of Federal Regulations, title 40, section 122.26(d)(iv)(D).

[809] *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 768 ["Had the Regional Board found, when imposing the disputed permit conditions, that those conditions were the only means by which the maximum extent practicable standard could be implemented, deference to the board's expertise in reaching that finding would be appropriate."].

[810] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 332 [Order No. R8-2009-0030, Section XIII.1].

retail sales industry; residential/commercial landscape construction and service industry; residential and commercial construction industry; and residential and community activities) by July 1, 2010 and annually thereafter, and commercial and industrial facility inspectors shall distribute educational information (Fact Sheets) during their inspection visits.[811]

- The principal permittee, in collaboration with the co-permittees, shall develop and implement a mechanism for public participation in the updating and implementation of DAMPs, WQMP guidance, and Fact Sheets for "various activities." The public shall be informed of the availability of these documents through public notices in local newspapers, County or city websites, local libraries, city halls, or courthouses.[812]

In addition, the Commission finds that these state-mandated activities are uniquely imposed on the local government permittees, and provide a governmental service to the public to reduce the discharge of pollution in stormwater runoff from the MS4s.[813] Therefore, the requirements impose a new program or higher level of service within the meaning of article XIII B, section 6 of the California Constitution.

5. Sections IX.1, X.1-3, X.5, and X.8 of the Test Claim Permit Impose a State-Mandated New Program or Higher Level of Service For Specified New Activities Relating to Municipal Inspections of Industrial and Commercial Facilities.

The test claim permit requires each permittee to maintain an inventory of industrial and commercial facilities within its jurisdiction that are subject to inspection. The inventory must include "all [industrial] sites that have the potential to discharge pollutants to the MS4…regardless of whether the facility is subject to business permits"[814] and "the types of commercial facilities/businesses listed," including, for example, automotive repair, maintenance, fueling, or cleaning; airplane maintenance, fueling, or cleaning; marinas and boat maintenance, fueling, or cleaning; pest control service facilities; animal facilities such as petting zoos and boarding and training facilities; landscape and hardscape installation; golf courses; and any commercial sites or sources that are tributary to and within 500 feet of an area defined by the Ocean Plan as an Area of Special Biological Significance.[815] The inventory must be maintained in a computer-based database system, and inclusion of a Geographical Information System

[811] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 332 [Order No. R8-2009-0030, Section XIII.4].

[812] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 333 [Order No. R8-2009-0030, Section XIII.7].

[813] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56; *Department of Finance v. Commission on State Mandates* (2021) 59 Cal.App.5th 546, 629-630.

[814] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 311 [Order No. R8-2009-0030].

[815] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 313 [Order No. R8-2009-0030].

(GIS), as specified, is required.[816] Then, based on each facility's priority ranking, determined by the threat posed to water quality, permittees are required to conduct regular inspections, reviewing the facility's material handling and storage practices, BMP implementation, any evidence of a violation that might cause a threat to water quality.[817] A report on high priority industrial inspections and a copy of the databases for industrial and commercial facilities shall be included in the annual report, and all inspectors are required to be trained.[818] The test claim permit also requires the principal permittee to "continue" to maintain a restaurant inspection program.[819] And the test claim permit requires permittees to develop a mobile business pilot program.[820]

a. Some of the requirements of the Inspections of Industrial and Commercial Facilities program are new, as compared with prior law.

The prior permit required permittees to maintain an inventory of industrial and commercial facilities in a computer-based database, and to inspect those facilities on a schedule based on their potential to impact water quality.[821] At a minimum, high priority sites were required to be inspected at least once by July 1, 2004.[822] In addition, the prior permit required that high priority industrial inspections and a copy of the databases for industrial and commercial facilities (*as identified in the prior permit*) be included in the annual report, and that inspectors be trained.[823] The prior permit also required the principal permitted to develop a restaurant inspection program.[824] Those elements of the program are not new.

However, the test claim permit now requires that inventory to include "a Geographical Information System (GIS), with latitude, longitude (in decimals) or NAD83/WGS84 compatible

[816] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 311; 313 [Order No. R8-2009-0030].

[817] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 312; 314 [Order No. R8-2009-0030].

[818] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 314 [Order No. R8-2009-0030].

[819] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 315 [Order No. R8-2009-0030, Section X.9].

[820] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 315 [Order No. R8-2009-0030].

[821] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 418-421 [Order No. R8-2002-0010].

[822] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 421 [Order No. R8-2002-0010].

[823] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 419-422 [Order No. R8-2002-0010].

[824] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 416 [Order No. R8-2002-0010, Section VI.7].

formatting…"[825] In addition, the categories of commercial facilities subject to inspection are expanded by the test claim permit,[826] and the Permit requires a new "prioritization and inspection schedule," which must include "proximity and sensitivity of receiving waters, material used and wastes generated at the site."[827] Until that prioritization and inspection schedule is approved, at least ten percent of commercial sites are to be ranked "high" priority in terms of the frequency of inspections, and twenty percent to be ranked "medium" priority.[828] The priority rankings also determine the frequency of inspection: high priority sites must be inspected annually, medium priority sites must be inspected every two years, and low priority sites must be inspected at least once during the permit term.[829] And, the permit requires permittees to develop a mobile business pilot program, to address one category of mobile business, such as mobile auto washing/detailing; carpet, drape, and furniture cleaning; or mobile high pressure or steam cleaning. The pilot program must include outreach materials for the business and an

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[825] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 311; 313 [Order No. R8-2009-0030].

[826] The new categories of commercial facilities subject to inspection, as compared with the Third Term Permit, are as follows:

a) Transport, storage or transfer of pre-production plastic pellets.

c) Airplane maintenance, fueling or cleaning;

d) Marinas and boat maintenance, fueling or cleaning;

e) Equipment repair, maintenance, fueling or cleaning;

f) Automobile impound and storage facilities;

g) Pest control service facilities;

h) Eating or drinking establishments, including food markets and restaurants;

j) Building materials retail and storage facilities;

k) Portable sanitary service facilities;

m) Animal facilities such as petting zoos and boarding and training facilities;

q) Golf courses.

(Compare Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, p. 313 [Order No. R8-2009-0030] with pp. 420-421 [Order No. R8-2002-0010].)

[827] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 314 [Order No. R8-2009-0030].

[828] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 314 [Order No. R8-2009-0030].

[829] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 314 [Order No. R8-2009-0030].

enforcement strategy and BMPs for the business type.[830] These activities are newly required, including the inspections for the newly-added categories of commercial facilities, and the increased frequency of inspections that follows from the quotas imposed on facility priority rankings.

b. The new requirements of the Inspections of Industrial and Commercial Facilities program are state-mandated.

The claimants argue that the 2002 permit did not require GIS as a part of the inventory for commercial and industrial facilities, and "there is no express requirement or mention of the use of GIS as part of municipal inspection of commercial facilities in the CWA or the federal regulations."[831] The claimants further argue that "[t]he Regional Board provides no legal justification or authority stating that these 11 new categories [of commercial facilities] pose a significant water quality threat to the MS4," and therefore there is "no legal authority warranting the inclusion of these 11 new categories of commercial facilities and no evidence that these 11 categories are significant non-point source polluters."[832] With respect to costs, the claimants allege that they must purchase equipment and software, and hire consultants to "prepare aerial digital photographs of the Permittees' jurisdictions;" "develop a GIS browser;" "digitize all stormdrain systems and develop a storm drain system digital map [sic];" and "develop a GIS layer that includes all commercial, industrial, and restaurant facilities that are inspected for stormwater compliance."[833]

The Regional Board asserts that the claimants' 2007 DAMP, submitted along with its ROWD, "proposed the prioritization methodology for industrial and commercial facilities inspections," which "specifically identifies *the distance between the facility and a sensitive waterbody* as one of the major factors in the prioritization ranking."[834] The Regional Board accordingly states: "It is difficult to envision how this information would be calculated, recorded and documented for verification without the use of GIS. Thus, the challenged permit provisions flow directly from Claimants' proposal."[835] With respect to the quotas applied to priority rankings on which inspection frequency is based, the Regional Board stated:

> During the third permit term, the permittees were given the opportunity to design a commercial facility ranking system based on a number of criteria including type/size of activity, potential for pollutant discharge and history of pollutant

[830] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 315 [Order No. R8-2009-0030].

[831] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 102.

[832] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 102.

[833] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 103.

[834] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 39.

[835] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 39.

> discharges. Despite this opportunity, in the most recent annual report, some permittees are reporting few or no high priority commercial sites out of hundreds to thousands of sites that met one or more of the 11 categories listed in the third term permit. The 10/40/50 breakdown should be used to ensure that the 10% of commercial facilities with the highest potential for pollutant discharge be ranked 'high' and be inspected annually, similarly for the medium and low priority rankings.[836]

As discussed above, the claimants are required to submit a ROWD before the end of each permit term, and that submission is required to contain proposed additional measures that can be taken to promote water quality in the region. Government Code section 17565 states: "If a local agency … at its option, has been incurring costs which are subsequently mandated by the state, the state shall reimburse the local agency … for those costs incurred after the operative date of the mandate." Thus, even if the permittees "proposed the prioritization methodology," or were already employing GIS in their inventory of commercial and industrial facilities, the inclusion of these requirements in the test claim permit adopted by the Regional Board still may constitute a new state-mandated activity. Moreover, the claimants' ROWD [DAMP 2007] contains no reference to the expansion of commercial facility categories subject to inspection; nor any plan to impose *quotas* for priority rankings; and, the ROWD/DAMP clearly states that GIS information would remain an *optional* element of each permittee's inventory.[837] Accordingly, the Commission cannot, in the context of a mandates analysis, find that measures proposed in good faith in the ROWD, a planning document that the claimants are required by the applicable provisions of the CWA and the regulations, and by the prior permit, to submit, are not mandated by the state when the measures are then adopted and made mandatory as part of the Regional Board's final permit.[838]

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[836] Exhibit Q (30), Regional Board's Response to Comments on Draft Permit, page 17 [Administrative Record on Order No. R8-2009-0030, Part III].

[837] Exhibit C, Regional Board's Attachments to Comments on the Test Claim, filed March 9, 2011, page 1103.

[838] See, e.g., Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 434 [Order No. R8-2002-0010 ("This order expires on January 18, 2007 and the permittees must file a Report of Waste Discharge (permit application) no later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.")]; see also, *Department of Finance v. Commission on State Mandates* (2021) 59 Cal.App.5th 546, 632, which found as follows:

> Although the storm sewer system operator must propose "management practices; control techniques; and system, design, and engineering methods to reduce the discharge of pollutants to the maximum extent practicable," it is the "permit-issuing agency" that "determine[s] which practices, whether or not proposed by the applicant, will be imposed as conditions." (*Ibid.*) Thus, as the Commission concluded, in contrast to the school districts' participation in educational programs in *Kern High School District*, the local governments in the instant case "[did] not voluntarily participate" in applying for a permit to operate their

Furthermore, the Commission finds that the new required activities are mandated by the state. As discussed above, when considering whether a permit condition is state-mandated or federally-mandated, the Commission must analyze whether each permit condition is required by federal law and implemented by the state without discretion, or is the only means by which federal law, including the maximum extent practicable standard of the CWA, can be met.[839] Alternatively, if "the state exercises its discretion to impose the requirement by virtue of a 'true choice,' the requirement is not federally mandated."[840]

At the time the test claim permit was adopted, federal law did not require GIS or any other electronic or computerized mapping, or impose quotas on priority rankings for commercial inspection sites, or a pilot program for mobile businesses.[841] References in federal regulations to a "map" include only a site map for individual industrial and construction activity permits (§§ 122.26(c)(1)(i)(A) & 122.26(c)(1)(ii)(A)); a "USGS 7.5 minute topographic map" identifying the boundaries of an MS4 covered by the permit application (§ 122.26(d)(1)(iii)(A)); a "drainage system map" of an MS4 used for assigning field screening locations (§ 122.26(d)(1)(iv)(D)(1, 6, 7); and a map showing areas served by combined sewer systems, for purposes of petitioning to reduce the Census estimates of the population served by storm sewer systems proportionally to the ratio of combined sewers to municipal separate storm sewers. (§ 122.26(f)(3)).

The Regional Board cites to part 112.26(d)(2)(F) for its authority to dictate inspection requirements, but this citation is in error, and was most likely intended to have been part 122.26(d)(2)(i)(F).[842] That provision states that a permit application must demonstrate adequate legal authority to "Carry out all inspection, surveillance and monitoring procedures necessary to determine compliance and noncompliance with permit conditions including the prohibition on illicit discharges to the municipal separate storm sewer."[843] In addition, section 122.26(d)(2)(iv)(C)(1) requires that the permit include a management program to monitor and control pollutants in stormwater discharges to MS4s from industrial facilities, and the program is required to identify priorities and procedures for inspections and establishing and implementing control measures for such discharges. These provisions therefore suggest that inspections are required to ensure compliance with the permit, including prohibitions on illicit discharges; however, they do not demonstrate that the challenged permit conditions, which describe how the state complies with the federal requirement to inspect, and which increased the scope, frequency, and cost of the inspections program(s) are required by federal law.

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stormwater drainage systems; they were required to do so under state and federal law and the challenged requirements were mandated by the Regional Board.

[839] *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 768; 771.

[840] *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 765.

[841] See Code of Federal Regulations, title 40, section 122.26 (7-1-08 Edition).

[842] Exhibit Q (30), Regional Board's Response to Comments on Draft Permit, page 13 [Administrative Record on Order No. R8-2009-0030, Part III].

[843] Code of Federal Regulations, title 40, section 122.26(d)(2)(i)(F) (July 1, 2005 Edition).

The Regional Board also argues that the requirements of the inspection programs are required to meet MEP:

> Additionally, as explained above, MEP is an iterative, evolving standard that requires new and more specific controls that reflect increased understanding of pollution problems and associated control measures. That the 2009 Permit, which is a fourth-term permit, contains additional or better-tailored requirements as necessary to achieve the federal MEP standard does not mean that the Permit is going beyond federal law, or imposing a new program or higher level of service.[844]

But as discussed above, the Supreme Court has made clear that unless the Board made express findings that a permit term is the only means by which MEP can be satisfied, the Commission is not required to defer to the Board's judgment on the federal mandate question.[845] Here, no such specific findings are evident in the record; the Board simply advances the general argument that MEP is an iterative standard and that the test claim permit "contains additional or better-tailored requirements as necessary to achieve the federal MEP standard."[846] The Board does not show why these requirements are necessary to meet MEP, offering only: "During the [Third Term Permit], MS4 Audits conducted by Regional Board staff indicated the need for more regimented oversight regarding commercial inventory management."[847]

Further, as the Supreme Court noted in the *Department of Finance* case, which also addressed permit requirements to inspect commercial and industrial facilities, "state law made the Regional Board responsible for regulating discharges of waste within its jurisdiction…" and "[t]his regulatory authority included the power to 'inspect the facilities of any person to ascertain whether…waste discharge requirements are being complied with.'"[848] The Court further noted: "Finally, there was evidence the Regional Board offered to pay the County to inspect industrial facilities. There would have been little reason to make that offer if federal law required the County to inspect those facilities."[849] The Court concluded that the Los Angeles Regional Board in that case "had primary responsibility for inspecting these facilities and sites…" but "shifted that responsibility to the Operators by imposing these permit conditions."[850] "Under the

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[844] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 39.

[845] *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 768 ["Had the Regional Board found, when imposing the disputed permit conditions, that those conditions were the only means by which the maximum extent practicable standard could be implemented, deference to the board's expertise in reaching that finding would be appropriate."].

[846] Exhibit B, Regional Board's Comments on the Test Claim, filed March 9, 2011, page 39.

[847] Exhibit Q (30), Regional Board's Response to Comments on Draft Permit, page 17 [Administrative Record on Order No. R8-2009-0030, Part III].

[848] *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 770 [citing Water Code §§ 13260; 13267].

[849] *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 770.

[850] *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 771.

reasoning of *Hayes*, the inspection requirements were not federal mandates."[851] That holding applies here.

Accordingly, the Commission finds the following new requirements of the inspection programs are state-mandated, rather than federally-mandated:

- Include *GIS mapping* (with latitude/longitude (in decimals) or NAD83/WGS84), in the inventories of:
    - All industrial facilities within the jurisdiction that have the potential to discharge pollutants to the MS4, regardless of whether the facility is subject to business permits, licensing, the State's General Industrial Permit or other individual NPDES permit. (Section IX.1.)[852]
    - Fixed commercial facilities within its jurisdiction, including

      a) Transport, storage or transfer of pre-production plastic pellets.

      b) Automobile mechanical repair, maintenance, fueling or cleaning;

      c) Airplane maintenance, fueling or cleaning;

      d) Marinas and boat maintenance, fueling or cleaning;

      e) Equipment repair, maintenance, fueling or cleaning;

      f) Automobile impound and storage facilities;

      g) Pest control service facilities;

      h) Eating or drinking establishments, including food markets and restaurants;

      i) Automobile and other vehicle body repair or painting;

      j) Building materials retail and storage facilities;

      k) Portable sanitary service facilities;

      l) Painting and coating;

      m) Animal facilities such as petting zoos and boarding and training facilities;

      n) Nurseries and greenhouses;

      o) Landscape and hardscape installation;

      p) Pool, lake and fountain cleaning;

      q) Golf courses;

      r) Other commercial sites/sources that the permittee determines may contribute a significant pollutant load to the MS4; and,

[851] *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 771.

[852] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 311 [Order No. R8-2009-0030, Section IX.1].

s) Any commercial sites or sources that are tributary to and within 500 feet of an area defined by the Ocean Plan as an Area of Special Biological Significance. (Section X.1.)[853]

- Conduct, or require to be completed, inspections of the following *new* categories of commercial facilities, and provide a copy of the database for the *new* categories of commercial facilities to the Regional Board with each annual report:

  a) Transport, storage or transfer of pre-production plastic pellets.

  c) Airplane maintenance, fueling or cleaning;

  d) Marinas and boat maintenance, fueling or cleaning;

  e) Equipment repair, maintenance, fueling or cleaning;

  f) Automobile impound and storage facilities;

  g) Pest control service facilities;

  h) Eating or drinking establishments, including food markets and restaurants;

  j) Building materials retail and storage facilities;

  k) Portable sanitary service facilities;

  m) Animal facilities such as petting zoos and boarding and training facilities;

  q) Golf courses. (Sections X.1 and X.5)[854]

- Within 12 months of adoption of the Order, develop a prioritization and inspection schedule for the commercial facilities in section X.1. Until that plan is approved, the following minimum criteria must be met: 10% of commercial sites (not including restaurants/food markets) must be ranked "high" (where there are fewer than 100 sites within a municipality, at least ten sites must be ranked "high"); 20% of commercial sites (not including restaurants/food markets) must be ranked "medium;" and the remainder may be ranked "low." (Section X.2.)[855]

- Conduct, or require to be completed, commercial facilities inspections, at frequencies as determined by the threat to water quality prioritization; high priority sites shall be inspected at least once a year, medium priority sites shall be inspected at least every two

[853] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 313 [Order No. R8-2009-0030, Section X.1].

[854] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 313-314 [Order No. R8-2009-0030, Sections X.1, X.5].

[855] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 314 [Order No. R8-2009-0030, Section X.2].

years, and low priority sites shall be inspected at least once per permit cycle. (Section X.3.)[856]

- Within 12 months of adoption of this order, the permittees shall develop a mobile business pilot program. The pilot program shall address one category of mobile business from the following list: mobile auto washing/detailing; equipment washing/cleaning; carpet, drape and furniture cleaning; mobile high pressure or steam cleaning. The pilot program shall include at least two notifications of the individual businesses operating within the County regarding the minimum source control and pollution prevention measures that the business must implement. The pilot program shall include outreach materials for the business and an enforcement strategy to address mobile businesses. The permittees shall also develop and distribute the BMP Fact Sheets for the selected mobile businesses. At a minimum, the mobile business Fact Sheets should include: laws and regulations dealing with urban runoff and discharges to storm drains; appropriate BMPs and proper procedure for disposing of wastes generated. (Section X.8.)[857]

    c. <u>The new state-mandated requirements under the Inspections for Commercial and Industrial Facilities program constitute new programs or higher levels of service.</u>

Article XIII B, section 6 of the California Constitution requires subvention only for costs incurred to implement a new program or higher level of service. The Court in *County of Los Angeles* held: "We conclude that the drafters and the electorate had in mind the commonly understood meanings of the term—programs that carry out the governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state."[858]

Here, the activities identified above as being new, compared with the prior permit, are uniquely imposed on local government (the permittees) and provide a governmental service the public. "The inspection requirements provide a [new program or] higher level of service because they promote and enforce third party compliance with environmental regulations limiting the amount of pollutants that enter storm drains and receiving waters."[859] Therefore these activities constitute a new program or higher level of service within the meaning of article XIII B, section 6.

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[856] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 314 [Order No. R8-2009-0030, Section X.3].

[857] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 315 [Order No. R8-2009-0030, Section X.8].

[858] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56.

[859] *Department of Finance v. Commission on State Mandates* (2021) 59 Cal.App.5th 546, 630.

C. <u>There are Costs Mandated by the State to Comply with Sections XVIII.8-9, XIII.1, XIII.4, XIII.7, and XI.4 of the Test Claim Permit to Submit a Proposed Cooperative Watershed Program for the Selenium TMDL, Develop A Constituent-Specific Source Control Plan for the San Gabriel Metals TMDL, Comply with the New Public Education Activities, and Develop a Pilot Program to Control Pollutant Discharges From Common Interest Areas and Areas Managed By Homeowner Associations or Management Companies, Only from June 1, 2009, through December 31, 2017. There Are *No* Costs Mandated by the State for the Remaining New Mandated Activities.</u>

As indicated above, the following activities constitute mandated new programs or higher levels of service:

- Submit a proposed Cooperative Watershed Program that will fulfill applicable requirements of the selenium TMDL implementation plan within 24 months of adoption of the test claim permit, or one month after approval of the Regional Board selenium TMDLs by OAL, whichever is later. (Section XVIII.B.8.)[860]
- Develop a "constituent-specific source control plan" for copper, lead, and zinc, including a monitoring program, to ensure compliance" with WLAs for dry and wet weather runoff, which were derived from the 2007 San Gabriel River Metals TMDL jointly developed by the Los Angeles Water Board and U.S. EPA. (Section XVIII.B.9.)[861]
- LID and hydromodification Planning Requirements for Development:
    - Within 12 months of adoption of this order, update the model WQMP to incorporate LID principles (as per Section XII.C) and to address the impact of urbanization on downstream hydrology (as per Section XII.D) and a copy of the updated model WQMP shall be submitted for review and approval by the Executive Officer. (Section VII.C.1.)[862]
    - Prepare a Watershed Master Plan to address the hydrologic conditions of concern on a watershed basis. The Watershed Master Plans shall integrate water quality, hydromodification, water supply, and habitat for the following watersheds: Coyote Creek-San Gabriel River; Anaheim Bay-Huntington Harbour; Santa Ana River; and Newport Bay-Newport Coast. Components of the Plan shall include: (1) maps to identify areas susceptible to hydromodification including downstream erosion, impacts on physical structure, impacts on riparian and aquatic habitats and areas where storm water and urban runoff infiltration is possible and appropriate; and, (2) a hydromodification model to make available as a tool to

[860] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 343 [Order No. R8-2009-0030, Section XVIII.B.8].

[861] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 343 [Order No. R8-2009-0030, Section XVIII.B.9].

[862] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 323 [Order No. R8-2009-0030].

enable proponents of land development projects to readily select storm water preventive and mitigative site BMP measures. The maps shall be prepared within 12 months of the adoption of this order and a model Plan for one watershed shall be prepared within 24 months of adoption of this order. The model Watershed Master Plan shall be submitted to the Executive Officer for approval. Watershed Master Plans shall be completed for all watersheds 24 months after approval of the model Watershed Master Plan. The Watershed Master Plans shall be designed to meet applicable water quality standards and the Federal Clean Water Act. (Section XII.D.5.)[863]

- Within 12 months of adoption of this order, the principal permittee, in collaboration with the co-permittees, shall develop technically-based feasibility criteria for project evaluation to determine the feasibility of implementing LID BMPs (feasibility to be based in part, on the issues identified in Section XII.C). This plan shall be submitted to the Executive Officer for approval. Only those projects that have completed a vigorous feasibility analysis as per the criteria developed by the permittees and approved by the Executive Officer should be considered for alternatives and in-lieu programs. If a particular BMP is not technically feasible, other BMPs should be implemented to achieve the same level of compliance, or if the cost of BMP implementation greatly outweighs the pollution control benefits, a waiver of the BMPs may be granted. All requests for waivers, along with feasibility analysis including waiver justification documentation, must be submitted to the Executive Officer in writing, 30 days prior to permittee approval. (Section XII.E.1.)[864]

- Inspection of industrial and commercial facilities:
  - Distribute educational information (Fact Sheets) during commercial and industrial facility inspection visits. (Section XIII.4.)[865]
  - Include GIS mapping in the inventories of industrial and commercial facilities. (Section X.1.)[866]

[863] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 328 [Order No. R8-2009-0030].

[864] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 328-329 [Order No. R8-2009-0030].

[865] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 332 [Order No. R8-2009-0030, Section XIII.4].

[866] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 311 [Order No. R8-2009-0030, section IX.1]; Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 313 [Order No. R8-2009-0030, Section X.1].

- Conduct inspections of the new categories of commercial facilities, and provide a copy of the database for the *new* categories of commercial facilities to the Regional Board with each annual report. (Sections X.1., X.3., and X.5).[867]
- Develop a prioritization and inspection schedule. (Section X.2.)[868]
- Develop a mobile business pilot program. (Section X.8.)[869]

- Public education program:
  - By July 1, 2012, the one-time activity to complete a public awareness survey to determine the effectiveness of the current public and business education strategy, and to include the findings of the survey and any proposed changes to the current program in the annual report for 2011-2012. (Section XIII.1.)[870]
  - Permittees shall administer individual or regional workshops for each of the specified sectors (manufacturing facilities; mobile service industry; commercial, distribution, and retail sales industry; residential/commercial landscape construction and service industry; residential and commercial construction industry; and residential and community activities) by July 1, 2010 and annually thereafter. (Section XIII.4.)[871]
  - The principal permittee, in collaboration with the co-permittees, shall develop and implement a mechanism for public participation in the updating and implementation of DAMPs, WQMP guidance, and Fact Sheets for "various activities." The public shall be informed of the availability of these documents through public notices in local newspapers, County or city websites, local libraries, city halls, or courthouses. (Section XIII.7.)[872]

[867] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 313-314 [Order No. R8-2009-0030, Sections X.1., X.5]; Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 314 [Order No. R8-2009-0030, Section X.3].

[868] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 314 [Order No. R8-2009-0030, Section X.2].

[869] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 315 [Order No. R8-2009-0030, Section X.8].

[870] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 332 [Order No. R8-2009-0030, Section XIII.1].

[871] Exhibit A, Joint Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 332 [Order No. R8-2009-0030, Section XIII.4].

[872] Exhibit A, Joint Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 333 [Order No. R8-2009-0030, Section XIII.7].

- Within 18 months of adoption, develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies. (Section XI.4.)[873]

The last issue is whether these activities result in increased costs mandated by the state. Government Code section 17514 defines "costs mandated by the state" as any increased costs that a local agency or school district incurs as a result of any statute or executive order that mandates a new program or higher level of service. Government Code section 17564(a) further requires that no claim shall be made nor shall any payment be made unless the claim exceeds $1,000. Increased costs mandated by the state requires a showing of "increased actual expenditures of limited tax proceeds that are counted against the local government's spending limit."[874]

In addition, a finding of costs mandated by the state means that none of the exceptions in Government Code section 17556 apply to deny the claim. As relevant here, Government Code section 17556(d) states that the Commission shall not find costs mandated by the state when

> The local agency or school district has the authority to levy service charges, fees, or assessments sufficient to pay for the mandated program or increased level of service. This subdivision applies regardless of whether the authority to levy charges, fees, or assessments was enacted or adopted prior to or after the date on which the statute or executive order was enacted or issued.

The claimants contend that the mandated activities result in increased costs mandated by the state within the meaning of article XIII B, section 6 and Government Code section 17514, and that none of the exceptions to reimbursement apply to deny this claim. Finance and the Regional Board contend that the claimants have not shown they have been forced to spend proceeds of taxes on this program and that local agencies possess fee authority within the meaning of section 17556(d), and therefore reimbursement is not required.

As explained in the analysis below, the new state-mandated activities result in costs mandated by the state for some of the activities based on the following findings:

- There is substantial evidence in the record, as required by Government Code section 17559, that the claimants incurred increased costs exceeding $1,000 and used their local "proceeds of taxes" to comply with the new state-mandated activities.[875]
- Pursuant to article XIII C, section 1(e)(3) of the California Constitution, *Department of Finance v. Commission on State Mandates* (2021) 59 Cal.App.5th 546, and other cases, the claimants have the authority under their police powers and by statute to impose

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[873] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 316-317 [Order No. R8-2009-0030, Section XI.4].

[874] *County of Sonoma v. Commission on State Mandates* (2000) 84 Cal.App.4th 1264, 1283; *County of Los Angeles v. Commission on State Mandates* (2003) 110 Cal.App.4th 1176, 1185 (emphasis added).

[875] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, pages 151-304.

regulatory fees to comply with Sections XIII.4 (the portion requiring inspectors to distribute educational information (Fact Sheets) during their inspections of commercial and industrial facilities), IX.1, X.1-3, X.5, and X.8 of the test claim permit related to the inspection of industrial and commercial facilities, and Sections VII.C.1, XII.D.5, and XII.E.1 of the test claim permit related to LID and hydromodification planning, which are sufficient as a matter of law to cover the costs of these activities pursuant to Government Code section 17556(d) and, thus, there are no costs mandated by the state for these activities.

- The claimants have the authority under their police powers and by statute to impose stormwater fees on property owners to comply with Sections XVIII.8-9, XIII.1, XIII.4, XIII.7, and XI.4 of the test claim permit to submit a proposed Cooperative Watershed Program for the selenium TMDL, develop a constituent-specific source control plan to for the San Gabriel metals TMDL, comply with the new mandated public education activities, and develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies. However, from June 1, 2009 through December 31, 2017 only, and based on the court's holding in *Howard Jarvis Taxpayers Association v. City of Salinas* (2002) 98 Cal.App.4th 1351 (*City of Salinas),* which interpreted article XIII D of the California Constitution as requiring the voter's approval before any stormwater fees can be imposed, there are costs mandated by the state for these activities. When voter approval is required by article XIII D, the claimants do *not* have the authority to levy fees sufficient as a matter of law to cover the costs of these activities within the meaning of Government Code section 17556(d).
- Beginning January 1, 2018, and based on *Paradise Irrigation District* case and the Legislature's enactment of Government Code sections 57350 and 57351 (which overturned *Howard Jarvis Taxpayers Association v. City of Salinas* (2002) 98 Cal.App.4th 1351), there are *no* costs mandated by the state to comply with the new requirements imposed by Sections XVIII.8-9, XIII.1, XIII.4, XIII.7, and XI.4 of the test claim permit to develop and submit a proposed Cooperative Watershed Program to comply with the selenium TMDL, the public education program, and the requirement to develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies, because claimants have constitutional and statutory authority to charge property-related fees for these costs subject only to the voter protest provisions of article XIII D, which is sufficient as a matter of law to cover the costs of the mandated activities within the meaning of Government Code section 17556(d).

1. **There is Substantial Evidence in the Record, as Required by Government Code Section 17559, that the Claimants Incurred Increased Costs Exceeding $1,000 and Used Their Local "Proceeds of Taxes" to Comply with the New State-Mandated Activities.**

    a. The reimbursement requirement in article XIII B, section 6 was included because of the tax and spend limitations in articles XIII A and XIII B, and is triggered only when the state forces the expenditure of local proceeds of taxes; section 6 was not intended to reach beyond taxation or to protect nontax sources.

In 1978, the voters adopted Proposition 13, which added article XIII A to the California Constitution. Article XIII A reduced the authority of local government to impose property taxes by providing that "the maximum amount of any ad valorem tax on real property shall not exceed one percent (1%) of the full cash value of such property," and that the one percent (1%) tax was to be collected by counties and "apportioned according to law to the districts within the counties…"[876] In addition to limiting the property tax, section 4 also restricts a local government's ability to impose special taxes by requiring a two-thirds approval by voters.[877]

Article XIII B was adopted by the voters as Proposition 4, less than 18 months after the addition of article XIII A to the state Constitution, and was billed as "the next logical step to Proposition 13."[878] While article XIII A is aimed at controlling ad valorem property taxes and the imposition of new special taxes, "the thrust of article XIII B is toward placing certain limitations on the growth of appropriations at both the state and local government level; in particular, article XIII B places limits on the authorization to expend the 'proceeds of taxes.'"[879] "Proceeds of taxes," in turn, includes "all tax revenues," as well as proceeds from "regulatory licenses, user charges, and user fees to the extent those proceeds *exceed* the costs reasonably borne by that entity in providing the regulation, product, or service," and proceeds from the investment of tax revenues.[880] And, with respect to local governments, the section reiterates that "proceeds of taxes" includes state subventions other than mandate reimbursement, and, with respect to the State's spending limit, excludes such state subventions.[881] Article XIII B does *not* restrict the growth in appropriations financed from nontax sources, such as "user fees based on reasonable

[876] California Constitution, article XIII A, section 1 (effective June 7, 1978).

[877] California Constitution, article XIII A, section 4 (effective June 7, 1978).

[878] *County of Placer v. Corin* (1980) 113 Cal.App.3d 443, 446.

[879] *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 762; *County of Placer v. Corin* (1980) 113 Cal.App.3d 443, 446.

[880] California Constitution, article XIII B, section 8(c) (added, Nov. 7, 1979; amended by Proposition 111, June 5, 1990) (emphasis added).

[881] California Constitution, article XIII B, section 8(c) (added, Nov. 7, 1979; amended by Proposition 111, June 5, 1990).

costs."[882] And appropriations subject to limitation do not include "[a]ppropriations for debt service." [883]

Proposition 4 also added article XIII B, section 6, which was specifically "designed to protect the tax revenues of local governments from state mandates that would require the expenditure of such revenues."[884] The California Supreme Court, in *County of Fresno v. State of California*,[885] explained:

> Section 6 was included in article XIII B in recognition that article XIII A of the Constitution severely restricted the taxing powers of local governments. (See *County of Los Angeles I, supra,* 43 Cal.3d at p. 61.) The provision was intended to preclude the state from shifting financial responsibility for carrying out governmental functions onto local entities that were ill equipped to handle the task. (*Ibid.*; see *Lucia Mar Unified School Dist. v. Honig* (1988) 44 Cal.3d 830, 836, fn. 6.) Specifically, it was designed to protect the tax revenues of local governments from state mandates that would require expenditure of such revenues. Thus, although its language broadly declares that the "state shall provide a subvention of funds to reimburse ... local government for the costs [of a state-mandated new] program or higher level of service," read in its textual and historical context section 6 of article XIII B requires subvention only when the costs in question can be recovered *solely from tax revenues*.[886]

Most recently, the California Supreme Court concluded that articles XIII A and XIII B work "in tandem," for the purpose of precluding "the state from shifting financial responsibility for carrying out governmental functions to local agencies, which are 'ill equipped' to assume increased financial responsibilities *because of the taxing and spending limitations that articles XIII A and XIII B impose*."[887] Accordingly, reimbursement under article XIII B, section 6 is only required when a mandated new program or higher level of service forces local government to

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[882] *County of Fresno v. State of California* (1991) 53 Cal.3d 482, 487; see also, *County of Placer v. Corin* (1980) 113 Cal.App.3d 443, 451 (finding that revenues from a local special assessment for the construction of public improvements are not "proceeds of taxes" subject to the appropriations limit).

[883] California Constitution, article XIII B, section 9 (added, Nov. 7, 1979; amended by Proposition 111, June 5, 1990).

[884] *County of Fresno v. State of California* (1991) 53 Cal.3d 482, 487.

[885] *County of Fresno v. State of California* (1991) 53 Cal.3d 482.

[886] *County of Fresno v. State of California* (1991) 53 Cal.3d 482, 487, emphasis in original.

[887] *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 763, emphasis added.

incur "increased actual expenditures of limited tax proceeds that are counted against the local government's spending limit."[888]

b. There is substantial evidence in the record that the claimants incurred increased costs exceeding $1,000 and used their local "proceeds of taxes" to comply with the new state-mandated activities.

Consistent with these constitutional principles, reimbursement under article XIII B, section 6 is only required if the claimants show, with substantial evidence in the record,[889] that they have incurred increased costs mandated by the state within the meaning of Government Code section 17514. When alleged mandated activities do not compel the increased expenditure of a local agency's "proceeds of taxes," then reimbursement under section 6 is not required.[890] Government Code section 17514 defines "costs mandated by the state" as any increased costs that a local agency or school district incurs as a result of any statute or executive order that mandates a new program or higher level of service. Government Code section 17564(a) further requires that no claim shall be made nor shall any payment be made unless the claim exceeds $1,000.

All of the claimants have declared they have incurred costs exceeding $1,000. The County of Orange, in a declaration signed by the Chief of the Orange County Stormwater Program, further states that "in addition to its General Fund, [the County] had sources other than County funding, including landfill gate fees and special district funding, for certain Permit obligations. To the extent such fees were employed and/or such funds were appropriated for such obligations, they would not be available for other County obligations."[891] In a second declaration filed by Orange County with the Test Claim, it is declared that the County was designated the principal permittee and the County and the City permittees have a cost-sharing agreement for compliance with the test claim permit.[892] To the extent the County receives funds from other sources, including from fees, grant funding, and from the other copermittees under an agreement, those funds are *not* the

[888] *County of Sonoma v. Commission on State Mandates* (2000) 84 Cal.App.4th 1264, 1283; *County of Los Angeles v. Commission on State Mandates* (2003) 110 Cal.App.4th 1176, 1185 (emphasis added).

[889] Government Code section 17559.

[890] *County of Fresno v. State of California* (1991) 53 Cal.3d 482, 487 [Reimbursement is required only when "the costs in question can be recovered solely from tax revenues."].

[891] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 114 (Declaration of Richard Boon, Chief of the Orange County Stormwater Program, dated December 19, 2016).

[892] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 117-118 (Declaration of Richard Boon, Chief of the Orange County Stormwater Program, dated December 19, 2016).

County's proceeds of taxes. These funds received by the County are not taxes levied by or for the County, and are not counted against the County's appropriations limit.[893]

The Cities each state that they are unaware of any state or federal funding, and believe that only General Fund revenues are available to cover the costs of any mandated activities.[894]

The record shows, however, that the claimants have a number of different revenue streams with which to fund stormwater pollution control activities, and the record indicates a mix of different revenues being applied throughout the County to pay for the activities required by the Third Term Permit and the test claim permit.

The administrative record for the test claim permit contains the ROWD filed by the permittees to apply for the test claim permit, which is dated July 21, 2006.[895] A more recent ROWD, dated October 3, 2013, (submitted for a Fifth Term Permit renewal) is now available.[896] Both the 2006 ROWD, which reflects the activities and costs under the Third Term Permit, and the 2013 ROWD, which discusses the activities and costs under the test claim permit, include a graphic representation of countywide costs for compliance with the NPDES stormwater MS4 permits.[897] The 2006 ROWD states that "[t]he purpose of this document is to comply with the requirement of the Third Term Permits, Regional Water Quality Control Board Orders R8-2002-0010 (Santa Ana Regional Board) and R9-2002-0001 (San Diego Regional Board) to submit a Report of Waste Discharge 180 days prior to permit expiration."[898] During the period of the fourth term permit the County appears to have discontinued the practice of submitting a ROWD to both

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[893] California Constitution, article XIII B, section 8; *Bell Community Redevelopment Agency v. Woosley* (1985) 169 Cal.App.3d 24, 32.

[894] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 125 (Declaration of Keith Linker for the City of Anaheim), 132 (Declaration of Brian M. Ingallinera for the City of Brea), 139 (Declaration of David Jacobs for the City of Buena Park), 147 (Declaration of Baltazar Mejia for the City of Costa Mesa), 154 (Declaration of Gonzalo Vasquez for the City of Cypress), 161 (Declaration of Steven Hauerwass for the City of Fountain Valley), 168 (Declaration of Trung Chanh Phan for the City of Fullerton), 173 (Declaration of Travis Hopkins for the City of Huntington Beach), 181 (Declaration of Thomas Lo for the City of Irvine), 189 (Declaration of Devin Slaven for the City of Lake Forest), 197 (Declaration of John Kappeler for the City of Newport Beach), 204 (Declaration of Luis Estevez for the City of Placentia), 211 (Declaration of Michael Ho for the City of Seal Beach), 217 (Declaration of Jarad Hildenbrand for the City of Villa Park).

[895] Exhibit Q (18), Orange County ROWD, July 21, 2006, page 1 [Administrative Record on Order No. R8-2009-0030, Part I].

[896] Exhibit Q (19), Orange County ROWD, October 3, 2013.

[897] Exhibit Q (18), Orange County ROWD, July 21, 2006, Fig. 2.2, page 31 [Administrative Record on Order No. R8-2009-0030, Part I]; Exhibit Q (19), Orange County ROWD, October 3, 2013, page 153.

[898] Exhibit Q (18), Orange County ROWD, July 21, 2006, page 9 [Administrative Record on Order No. R8-2009-0030, Part I].

Regional Boards simultaneously. The 2013 ROWD states that it is intended to comply only with Order No. R8-2009-0030 (the test claim permit).[899] The relevant graphics are shown here:

Figure 2.2: 2004-05 Funding Sources

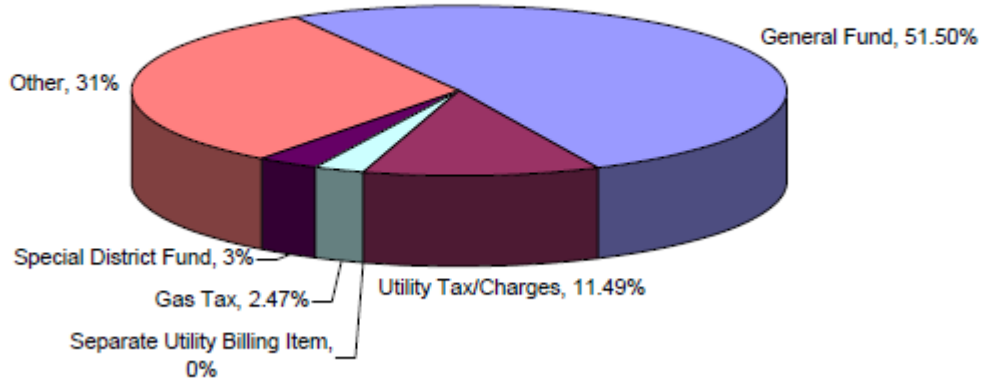

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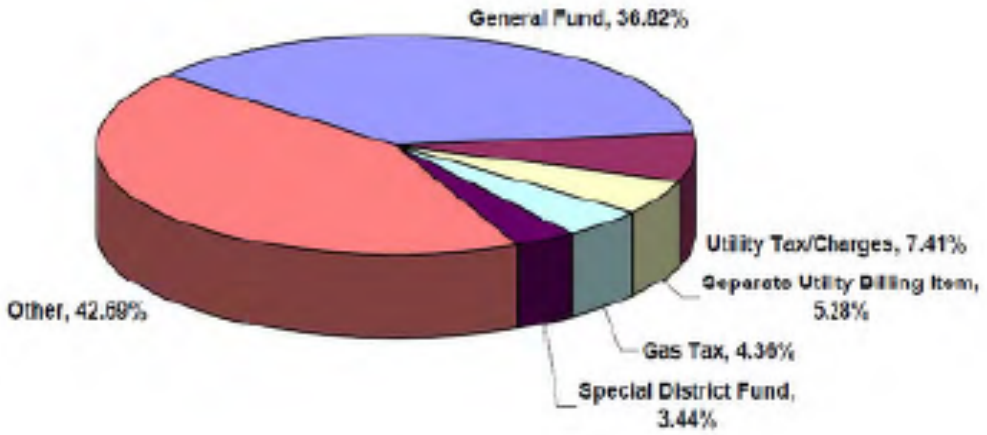
Figure 6.2: FY2011-12 Funding Sources



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A few notable pieces of information about the claimants' costs and funding sources applied to their stormwater programs (which include, but are not limited to, the test claim permit activities) can be gleaned from these two ROWDs. First, the 2006 ROWD shows that countywide costs in

[899] Exhibit Q (19), Orange County ROWD, October 3, 2013, page 3.

[900] Exhibit Q (18), Orange County ROWD, July 21, 2006, Fig. 2.2, page 31 [Administrative Record on Order No. R8-2009-0030, Part I].

[901] Exhibit Q (19), Orange County ROWD, October 3, 2013, page 153.

the fiscal year prior to filing (fiscal year 2004-2005) were approximately $73 million.[902] This amount is not broken down by individual city permittees, or by program area, or by watershed, and therefore includes permittees under the San Diego Third Term Permit, Order Number R9-2002-0001. And, because the 2006 ROWD predates the test claim permit that is the subject of this Test Claim, the $73 million constitutes the cost of the program prior to any of the alleged test claim activities. Projected costs for 2005-2006 are stated to be $91.8 million for all city permittees across the county (and for both the Santa Ana and San Diego permit requirements).[903] The ROWD also generally describes some of the funding sources available:

> The funding sources used by the Permittees include: General Fund, Utility Tax, Separate Utility, Gas Tax, and Special District Fund, Others (Sanitation Fee, Fleet Maintenance, Community Services District, Water Fund, Sewer and Storm Drain Fee, Grants, and Used Oil Recycling Grants).[904]

The graph above indicates that 51.5 percent of funds used for NPDES activities under the prior permit (fiscal year 2004-2005 figures) are from "General Fund" revenues.[905] A full 31 percent of funding sources for NPDES activities is identified as "Other," while the remaining funds are identified as "Special District Fund" (3%), "Utility Tax/Charges (11.49%), and "Gas Tax" (2.47%).[906] It is unclear what revenues are included in the designation "Other," or whether "Utility Tax/Charges" would fall within a locality's "proceeds of taxes" subject to the protection of article XIII B, section 6. Neither is it clear in this record the origin of "Special District Fund[s]." However, the local entities' "General Fund" revenues should typically include local tax revenues and state subventions that fall within the conventional definition of "proceeds of taxes."[907] In addition, the "Gas Tax" revenues, though collected by the state and allocated to the counties by statute, fall within the definition of "proceeds of taxes," being a state subvention

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[902] Exhibit Q (18), Orange County ROWD, July 21, 2006, Fig. 2.3, pages 32 [Administrative Record on Order No. R8-2009-0030, Part I].

[903] Exhibit Q (18), Orange County ROWD, July 21, 2006, Section 2.2.5, page 26 [Administrative Record on Order No. R8-2009-0030, Part I].

[904] Exhibit Q (18), Orange County ROWD, July 21, 2006, Section 2.2.5, page 26 [Administrative Record on Order No. R8-2009-0030, Part I].

[905] Exhibit Q (18), Orange County ROWD, July 21, 2006 page 31 [Administrative Record on Order No. R8-2009-0030, Part I].

[906] Exhibit Q (18), Orange County ROWD, July 21, 2006, Fig. 2.2, page 31 [Administrative Record on Order No. R8-2009-0030, Part I].

[907] California Constitution, article XIII C ["All taxes imposed by any local government shall be deemed to be either general taxes or special taxes. Special purpose districts or agencies, including school districts, shall have no power to levy general taxes."]; *City and County of San Francisco v. Farrell* (1982) 32 Cal.3d 47, 57 [Defining special taxes to mean "taxes which are levied for a specific purpose rather than, as in the present case, a levy placed in the general fund to be utilized for general governmental purposes."]

other than a subvention under section 6.[908] Thus the 2006 ROWD provides a snapshot of funding sources prior to the test claim permit, showing that a substantial portion, but not all, of the funds used to pay for stormwater activities countywide (including, but not necessarily limited to, activities required under the Third Term Permit) are from permittees' general fund revenues and from the state-allocated gas tax. These are, facially, appropriations subject to limitation, eligible for protection under article XIII B, section 6. The nature of the remaining revenues and their eligibility for reimbursement is unknown.

The October 3, 2013 ROWD, indicates a similar breakdown in funding sources, and a significant increase in the overall cost of the program. Although the 2013 ROWD is addressed only to the Santa Ana Regional Board, the May 2014 ROWD submitted to the San Diego Regional Board presents exactly the same information, in both narrative and numeric descriptions of the county's program funding.[909] The 2013 ROWD states that countywide costs for Orange County's stormwater programs reached $95 million in fiscal year 2011-2012 (again, that includes all 36 separate municipal entities, and all stormwater activities - not just those newly required by the test claim permit and mandated by the state). And similarly to the 2006 ROWD, the 2013 ROWD states:

> In FY2011-12, the funding sources used by the Permittees to meet these costs included: General Fund, Utility Tax, Separate Utility, Gas Tax, and Special District Fund, Others (Sanitation Fee, Fleet Maintenance, Community Services District, Water Fund, Sewer & Storm Drain Fee, Grants, and Used Oil Recycling Grants) (See Figure 6.2). While increasingly more stringent regulatory obligations prompt consideration being given to creation of dedicated stormwater funding, there are significant obstacles to overcome.[910]

The 2013 ROWD shows a significantly smaller share of program activities funded from "General Fund" (36.82%) and a significantly larger share of activities funded from "Other" (42.69%).[911] It is still unclear what revenues are encompassed within "Other," but the only inference that can be fairly drawn from this shift is that in the intervening years (2005-2012) the claimants have found some means, aside from relying more heavily on tax revenues, to fund the activities of the test claim permit. Indeed, comparing the 2006 ROWD with the 2013 ROWD, the difference in *total spending* and the portion of that spending that derives from the "General Fund" demonstrates that the importance of "Other" funds has only increased. The Commission cannot say, on the basis of these documents and the record filed what funds are included in the designation "Other," or whether "Utility Tax/Charges" might fall within proceeds of taxes; the description is imprecise. However, the two funding sources that can be identified with relative

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[908] Streets and Highways Code, section 2101 et seq.; California Constitution, article XIII B, section 8 ["With respect to any local government, 'proceeds of taxes' shall include subventions received from the State, other than pursuant to Section 6…"].

[909] See Exhibit Q (19), Orange County ROWD, October 3, 2013, page 153; Exhibit Q (20), Orange County San Diego Region ROWD, May 20, 2014, pages 179-180.

[910] Exhibit Q (19), Orange County ROWD, October 3, 2013, page 153.

[911] Exhibit Q (19), Orange County ROWD, October 3, 2013, page 153.

certainty as comprising mainly proceeds of taxes, "General Fund," and "Gas Tax" are relied on to a lesser degree after the test claim permit than before: in fiscal year 2004-2005 General Fund and Gas Tax spending totaled approximately 54 percent of the total $73 million, or $39.4 million, according to the 2006 ROWD.[912] In 2011-2012 General Fund plus Gas Tax spending countywide totaled 41.2 percent of $95 million, or $39.1 million, according to the 2013 ROWD.[913] Thus, not only has the *share* of revenues attributable to "proceeds of taxes" decreased, but also the actual *dollar amount* applied to this program has decreased. And, the Commission notes, between $50 and $75 million was already being spent annually under the Third Term Permit,[914] and only the *increase* in costs under the test claim permit is of concern in a test claim analysis. As discussed, the Commission is unable to say definitively that none of the other revenue sources noted in the ROWD are proceeds of taxes; however, the only revenues the expenditure of which facially are proceeds of taxes, are relied upon to fund stormwater costs to a lesser extent after the test claim permit than before.

The record of this Test Claim also contains declarations by each of the permittees, in which a number of alternative revenue sources are noted. For example, the County, the Principal Permittee, states:

> The County, in addition to its General Fund, had sources of other County funding, including landfill gate fees and special district funding, for certain Permit obligations. To the extent such fees were employed and/or such funds appropriated for such obligations, they would not be available for other County obligations. I am informed and believe and therefore state that I am not aware of any other fee or tax which the County would have the discretion to impose under California law to cover any portion of the cost of these new programs/activities.[915]

Thus, as shown by the documents prepared by the claimants countywide, and which are presumed correct,[916] reliance on General Fund revenues has decreased after the test claim permit, while costs have increased. This is inconsistent with the Cities' declarations filed with the Test Claim that they have available only general fund revenues and, with just the test claim filing, there was not substantial evidence in the record that the claimants used their proceeds of taxes on the new state-mandated activities.

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[912] Exhibit Q (18), Orange County ROWD, July 21, 2006, Figs. 2.2, 2.3, pages 31-32 [Administrative Record on Order No. R8-2009-0030, Part I].

[913] Exhibit Q (19), Orange County ROWD, October 3, 2013, page 153.

[914] Exhibit Q (18), Orange County ROWD, July 21, 2006, Fig. 2.3, page 32 [Administrative Record on Order No. R8-2009-0030, Part I].

[915] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 114 [Declaration of Richard Boon, County of Orange].

[916] Evidence Code section 664 provides for a legal presumption that official acts are conducted in accordance with law. Here, the Drainage Area Management Plan, which also doubles as a Report on Waste Discharge, is required by federal law and is presumed to be correct.

In response to the Draft Proposed Decision, the claimants filed comments, additional declarations, and portions of annual reports filed with the Regional Board that were signed under penalty of perjury by employees of some of the claimants (Cities of Costa Mesa, Irvine, Lake Forest, Seal Beach, and Villa Park), which identify the sources of funds used from fiscal year 2009-2010 through 2020-2021 pursuant to the test claim permit.[917] The claimants contend that these cities used general fund revenues for all the new state-mandated activities and, thus, there is substantial evidence in the record that these claimants used their proceeds of taxes on the state-mandated activities.

The claimants submit a declaration from Sarah Chiang, an Environmental Resource Specialist of the Orange County Public Works Department (principal permittee under the test claim permit), who coordinates with the other permittees to submit annual reports and filings required by the test claim permit to the Regional Board.[918] One requirement of the test claim permit is that permittees annually submit a report, referred to as a "Program Effectiveness Assessment" to the Regional Board. Ms. Chiang declares that "[a]s part of my duties, I am required to be familiar with the content of filings required to be made by permittees under the 2009 Permit and how copies of those filings are kept in the ordinary course of business at OC Public Works."[919] She declares that the annual assessments are delivered to Orange County Public Works in compact discs, and then Orange County submits the compact discs to the Regional Board along with a "wet-ink" copy of a "Signed Certified Statement" from each permittee.[920] Section C-2.4 of the annual assessment is a "Fiscal Analysis," where the permittees are required to set forth annual funding sources, divided into various categories, including "General Fund" and "Gas Tax" for these costs.[921] Ms. Chiang then declares the following:

> Attached as Exhibits 2-6 to my Declaration are true and correct copies of excerpts of PEAs [program effectiveness assessments] containing Section C-2.4, Fiscal Analysis, that were retrieved by me from CDs in the possession of OC Public Works covering various fiscal years between 2009-10 and 2020-21 for the Cities of Costa Mesa (Exhibit 2), Irvine (Exhibit 3), Lake Forest (Exhibit 4), Seal Beach (Exhibit 5) and Villa Park (Exhibit 6).[922]

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[917] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, pages 33-37, 150 et seq.

[918] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 151.

[919] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 151.

[920] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 151-152.

[921] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 152.

[922] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 152.

The exhibits to Ms. Chiang's declaration are the relevant pages from section C-2 of the annual assessment report forms submitted by the Cities of Costa Mesa, Irvine, Lake Forest, Seal Beach, and Villa Park for fiscal years 2009-2010 through 2020-2021, showing that between 90 and 100 percent of their costs to comply with the test claim permit was funded with their general fund money, with some cities using 100 percent general fund revenue, and others using less than ten percent from grant funds and gas tax revenues from the remaining categories of funds listed on the form: utility tax/charges; separate utility billing item; gas tax; special district fund, which includes a sanitation fee, benefit assessment, fleet maintenance fund, community services fund, water fund, and sewer and storm drain; the maintenance fee; or other.[923]

Ms. Chiang's declaration also attaches a "true and correct copy of an example" of a signed certified statement required to be included in each annual assessment report, which is signed by an associate engineer from the City of Seal Beach for fiscal year 2012-2013 as follows:

> I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.[924]

Ms. Chiang's declaration closes by declaring, based on her review of the assessment reports filed with the principal permittee, that the City of Cyprus also used 100 percent general fund revenues to comply with permit:

> In addition, from my review of PEAs filed by other permittees, I am familiar with reports made by other permittees regarding the sources of funding used by them for 2009 Permit activities, including the City of Cypress. The PEAs filed by the City of Cypress state that the city used general funds for 100 percent of funding for permit obligations.[925]

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[923] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, pages 157, 159, 162, 165, 168, 171, 174, 177, 180, 183 (for the City of Costa Mesa); 189, 191, 193, 195, 197, 199, 201, 203, 205, 207 (for the City of Irvine); 211, 214, 217, 221, 225, 229, 233, 237, 241 (for the City of Lake Forest); 246, 248, 250, 252, 254, 256, 258, 261, 263, 266, 269 (for the City of Seal Beach); and 272, 274, 277, 280, 283, 286, 289, 292, 295, 298, 301 (for the City of Villa Park).

[924] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 154.

[925] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 152.

The claimants also submit a declaration signed under penalty of perjury from Seung Yang, an engineer for the City of Costa Mesa.[926] Seung Yang supervises the city's compliance with the test claim permit, and reviewed the excerpted pages from the City's program effectiveness assessments for fiscal years between 2010-2011 and 2020-2021, and declares the following:

> Based on my knowledge of the funding sources utilized by the City to pay for requirements of the 2009 Permit, as well as my review of the PEA excerpts, I declare, and am further informed and believe, that the City utilized its General Fund for 100 percent of the costs of complying with the 2009 Permit during the period 2009-2010 through 2020-2021.[927]

Seung Yang's declaration is consistent with the records provided in Sarah Chiang's declaration for the City of Costa Mesa.[928]

Thus, the claimants are relying on copies of relevant pages from annual assessment reports, which are filed by the permittees with the principal permittee and the Regional Board, and declarations from an employee of Orange County, as the principal permittee, and an employee of the City of Costa Mesa declaring that the copies of the records are true and correct copies, to prove that these cities used proceeds of taxes on the state-mandated activities. Except for a copy of one certified signature page from the City of Seal Beach for fiscal year 2012-2013, the signature pages to the remaining reports are not provided, but the declarant declares that the documents were in fact certified.

Although the declarations of Ms. Chiang and Seung Yang are direct evidence and may properly be used to support a fact under the Commission's regulations,[929] the portion of the assessment reports, themselves, are considered hearsay evidence. Hearsay evidence is defined as an out-of-court statement (either oral or written) that is offered to prove the truth of the matter stated.[930] Unless an exception to the hearsay rule applies, hearsay evidence alone cannot be used to support a finding because out-of-court statements are generally considered unreliable. The person who prepared the assessment report is not under oath, there is no opportunity to cross-examine the witness, and the witness cannot be observed at the hearing. Both the Commission's regulations, and provisions of the Administrative Procedures Act (APA), provide that hearsay evidence is admissible if it is inherently reliable, but will not be sufficient in itself to support a finding unless the evidence would be admissible over objection in a civil case with a hearsay exception.[931] In

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[926] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 303.

[927] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 304.

[928] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, pages 157, 159, 162, 165, 168, 171, 174, 177, 180, 183 (for the City of Costa Mesa).

[929] California Code of Regulations, title 2, section 1187.5; *Windigo Mills v. Unemployment Ins. Appeals Bd.* (1979) 92 Cal.App.3d 586, 597.

[930] Evidence Code section 1200.

[931] California Code of Regulations, title 2, section 1187.5; Government Code section 11513.

such cases, hearsay evidence may be used only for the purpose of supplementing or explaining other evidence.[932]

One of the exceptions to the hearsay rule, however, is in Evidence Code section 1280, the public records exception, which the courts have found reliable if the records are properly authenticated.[933] Section 1280 states the following:

> Evidence of a writing made as a record of an act, condition, or event is not made inadmissible by the hearsay rule when offered in any civil or criminal proceeding to prove the act, condition, or event if all of the following applies:
>
> (a) The writing was made by and within the scope of duty of a public employee.
>
> (b) The writing was made at or near the time of the act, condition, or event.
>
> (c) The sources of information and method and time of preparation were such as to indicate its trustworthiness.

It is not required that a report from a public employee be sworn to be admissible under Evidence Code section 1280.[934]

The Commission finds that the relevant pages from the assessment reports are properly authenticated by the declarations of Ms. Chiang and Seung Yang and, therefore, the reports fall within the public records exception to the hearsay rule.

Section IV. of the Monitoring and Reporting program made enforceable by the test claim permit[935] requires the claimants to submit an annual progress report to the Executive Officer of the Regional Board and to the Regional Administrator of the U.S. EPA, Region 9, no later than November 15th, of each year, which has to include "[a] unified fiscal accountability analysis, as described in Section XX., Provision, 2, of this order."[936] Section XX. of the test claim permit requires that:

> 1. Each permittee shall secure the resources necessary to meet all requirements of this order.

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[932] California Code of Regulations, title 2, section 1187.5.

[933] *People v. Orey* (2021) 63 Cal.App.5th 529, 551-552.

[934] For example, a hospital report, if properly authenticated, may qualify as a public record under Evidence Code section 1280. (*Bhatt v. State Dept. of Health Services* (2005) 133 Cal.App.4th 923, 929-930.)

[935] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 350 [Order No. R8-2009-0030, Section XXI.4].

[936] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 361 [Order No. R8-2009-0030, Monitoring and Reporting Program, Section IV.2(g)].

2. The permittees shall prepare and submit a unified fiscal accountability analysis to the Executive Officer of the Regional Board. The fiscal analysis shall be submitted with the annual report shall, at a minimum, include the following:

   a) Each permittee's expenditures for the previous fiscal year,

   b) Each permittee's budget for the current fiscal year,

   c) *A description of the source of funds*, and

   d) Each permittee's estimated budget for the next fiscal year.[937]

The Monitoring and Reporting program further states that "permittees shall be responsible for the submittal to the principal permittee of all required information/materials needed to comply with this order in a timely manner. All such submittals shall be signed by a duly authorized representative of the permittee under penalty of perjury."[938] The Water Code imposes civil penalties for the failure to comply with the reporting requirements or for false statements made in these documents.[939]

Ms. Chiang declares that as part of her duties with the office of the principal permittee, she is required to be "familiar with the content of filings required to be made by permittees under the 2009 Permit and how copies of those filings are kept in the ordinary course of business at OC Public Works."[940] She further declares that the assessment reports attached to her declaration are "true and correct" copies "of PEAs containing Section C-2.4, Fiscal Analysis, that were retrieved by me from CDs in the possession of OC Public Works covering various fiscal years between 2009-10 and 2020-21 for the Cities of Costa Mesa (Exhibit 2), Irvine (Exhibit 3), Lake Forest (Exhibit 4), Seal Beach (Exhibit 5) and Villa Park."[941] Similarly, Seung Yang, an employee of the City of Costa Mesa, has a duty to supervise the city's compliance with the test claim permit, and reviewed the excerpted pages from the City's program effectiveness assessments for fiscal years between 2010-2011 and 2020-2021.[942]

Thus, the evidence shows that the assessment reports were made by and within the scope of the public employees' duties, were prepared annually as required by the test claim permit, and were

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[937] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 349-350 [Order No. R8-2009-0030, Section XX].

[938] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 361 [Order No. R8-2009-0030, Monitoring and Reporting Program, Section IV.3].

[939] Water Code sections 13268, 13385, 13399.31.

[940] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 151.

[941] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 152.

[942] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 304.

properly authenticated by the declarations submitted by the claimants pursuant to Evidence Code section 1280.[943] There is no evidence rebutting these reports in the record.

Accordingly, the Commission finds that there is substantial evidence in the record that some of the claimants used their proceeds of taxes on the test claim permit in amounts exceeding $1,000. Thus, additional analysis is required to determine if any exception to the definition of "costs mandated by the state" in Government Code section 17556 apply.

2. Government Code Section 17556(d) Does Not Apply When Proposition 218 Requires Voter Approval to Impose Property-Related Stormwater Fees and, Thus, Under These Circumstances There Are Costs Mandated by the State. However, the Courts Have Held There Are *No* Costs Mandated by the State Pursuant to Government Code Section 17556(d) When Local Government Has the Authority to Charge Regulatory Fees Pursuant to Article XIII C or Property-Related Fees that are Subject Only to the Voter Protest Provisions of Article XIII D, Section 6 of the California Constitution.

Government Code section 17556(d) provides that the Commission "shall not find costs mandated by the state, as defined in Section 17514" if the Commission finds that "the local agency or school district has the authority to levy service charges, fees, or assessments sufficient to pay for the mandated program or increased level of service."

The claimants argue that due to the limitations of articles XIII A, XIII C, and XIII D they "do not have the ability to fund any of these programs by a fee that could be imposed *without a vote of the electorate*," and, thus, the fee authority they have is not sufficient to cover the costs of the mandated activities within the meaning of Government Code section 17556(d).[944] The claimants argue, in essence, that by preventing local government from recouping the costs of the mandate through non-tax revenue sources, Propositions 218 and 26 result in limiting the scope of the fee authority exception of Government Code section 17556(d) and that mandate reimbursement is an appropriate remedy in circumstances in which it would not have been previously.

As described below, the claimants' arguments are too broad. Cities and counties have authority under the California Constitution to make and enforce ordinances and resolutions to protect and ensure the general welfare within their jurisdiction, which is commonly referred to as the "police power."[945] That authority includes the power to impose fees or charges that are directed toward a particular activity or industrial or commercial sector, which this analysis will discuss in terms of a "regulatory fee;" fees or charges based on services or benefits received from government, which can be characterized as a "user fee;" fees or charges imposed as a condition of

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[943] In addition, the Commission has previously in this Decision taken official notice of the claimants' DAMPs, which are also annual reports filed with the Regional Board. Under section 1187.5(c) of the Commission's regulations, "Official notice may be taken in the manner and of the information described in Government Code Section 11515."

[944] Exhibit E, Claimants' Rebuttal Comments, Volume 1, filed June 17, 2011, page 60 (emphasis added).

[945] California Constitution, article XI, section 7. See also, *Marblehead Land Co. v. City of Los Angeles* (1931) 47 F.2d 528, 532.

development of real property, often termed "development fees;" and fees or charges (or assessments) levied on all property owners within the jurisdiction, which after Proposition 218 are commonly described as "property-related fees or assessments."

In addition, a number of provisions of the Government Code provide express authority (and in some cases certain restrictions) to impose or increase regulatory fees,[946] fees for development of real property,[947] and property-based assessments, fees and charges.[948]

Each of these fees or charges is subject to differing limitations pursuant to Propositions 218 and 26 (Cal. Const., arts. XIII C & XIII D).

The analysis below will address those limitations separately, because only property-related fees and assessments are subject to the notice, hearing, and majority approval or protest provisions of article XIII D, sections 4 and 6.

"Regulatory," "development," and "user" fees or charges are not subject to voter approval or majority protest. Broadly, these categories of fees are those that are targeted toward certain activities or sectors of industrial or commercial activity, or certain benefits received from the government or burdens created by the activity or the entity, rather than imposed on all property owners as an incident of property ownership.[949] Such fees may be adopted as an ordinance or resolution in the context of the legislative body's normal business,[950] subject only to the limitations of article XIII C, section 1(e), which, largely turn on establishing the relationship between the revenues raised and the uses to which they are put, and the amount charged and the benefits received or burdens created by the payor.[951]

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[946] See, e.g., Government Code section 37101 ("The legislative body may license, for revenue and regulation, and fix the license tax upon, every kind of lawful business transacted in the city.").

[947] Government Code section 66001 (providing for development fees under the "Mitigation Fee Act," requiring local entity to identify the purpose of the fee and the uses to which revenues will be put, to determine a reasonable relationship between the fee's use and the type of project or projects on which the fee is imposed).

[948] See, e.g., Health and Safety Code section 5471 (fees for storm drainage maintenance and operation); Government Code sections 38902 (providing for sewer standby charges); 53750 et seq. (Proposition 218 Omnibus Implementation Act, describing procedures for adoption of assessments, fees and charges); 53751 (as amended in 2017, providing that fees for sewer services includes storm sewers).

[949] See *Apartment Ass'n of Los Angeles County, Inc. v. City of Los Angeles* (2001) 24 Cal.4th 830, 842.

[950] See, e.g., *City and County of San Francisco v. Boss* (1948) 83 Cal.App.2d 445, 450 ("If revenue is the primary purpose and regulation is merely incidental the imposition is a tax; while if regulation is the primary purpose the mere fact that incidentally a revenue is also obtained does not make the imposition a tax.").

[951] California Constitution, article XIII C, section 1(e).

As explained below, the courts have held that there are no costs mandated by the state pursuant to Government Code section 17556(d) when local government has the authority to charge regulatory fees pursuant to article XIIII C and, thus, Sections XIII.4, IX.1, X.1-3, X.5, and X.8 of the test claim permit related to the inspection of industrial and commercial facilities, and the requirements in Sections VII.C.1, XII.D.5, and XII.E.1 of the test claim permit related to LID and hydromodification planning, are denied.

The courts have also held that there are no costs mandated by the state pursuant to Government Code section 17556(d) when local government has the authority to charge property-related fees that are subject only to the voter protest provisions of article XIII D, section 6 of the California Constitution. In this respect, and pursuant to the plain language of Government Code sections 57350 and 57351 (SB 231, eff. 1/1/2018), there are no costs mandated by the state beginning January 1, 2018, when property related fees are subject only to a voter protest and, thus, reimbursement for Sections XVIII.8-9, XIII.1, XIII.4, XIII.7, and XI.4 to submit a proposed Cooperative Watershed Program to comply with the selenium TMDL, to develop a constituent-specific source control plan to comply with the San Gabriel metals TMDL, the new mandated public education activities, and the mandate to develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies, are denied beginning January 1, 2018.

However, based on the court's holding in *City of Salinas* and before SB 231 became effective, article XIII D required the voter's approval before any property-related fees could be imposed. The Commission finds that the claimants do not have the authority to levy fees within the meaning Government Code section 17556(d) when voter approval is required for property-related fees under article XIII D of the California Constitution and, thus, there are costs mandated by the state for Sections XVIII.8-9, XIII.1, XIII.4, XIII.7, and XI.4 to submit a proposed Cooperative Watershed Program to comply with the selenium TMDL, to develop a constituent-specific source control plan to comply with the San Gabriel metals TMDL, the new mandated public education activities, and the mandate to develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies, and there are costs mandated by the state for these activities from June 1, 2009 through December 31, 2017 only.

a. Case law establishes that the exception to the subvention requirement found in Government Code section 17556(d) is a legal inquiry, not a practical one.

The California Supreme Court upheld the constitutionality of Government Code section 17556(d) in *County of Fresno.* [952] The court, in holding that the term "costs" in article XIII B, section 6, excludes expenses recoverable from sources other than taxes, stated:

> Section 6 was included in article XIII B in recognition that article XIII A of the Constitution severely restricted the taxing powers of local governments. (See *County of Los Angeles I, supra,* 43 Cal.3d at p. 61.) The provision was intended to preclude the state from shifting financial responsibility for carrying out governmental functions onto local entities that were ill equipped to handle the task. (*Ibid.*; see *Lucia Mar Unified School Dist. v. Honig* (1988) 44 Cal.3d 830,

[952] *County of Fresno v. State of California* (1990) 53 Cal.3d. 482.

> 836, fn. 6 [244 Cal.Rptr. 677, 750 P.2d 318].) Specifically, it was designed to protect the tax revenues of local governments from state mandates that would require expenditure of such revenues. Thus, although its language broadly declares that the "state shall provide a subvention of funds to reimburse ... local government for the costs [of a state-mandated new] program or higher level of service," read in its textual and historical context section 6 of article XIII B requires subvention only when the costs in question can be recovered *solely from tax revenues.*[953]

Following the logic of *County of Fresno*, the Third District Court of Appeal held in *Connell v. Superior Court* (1997) 59 Cal.App.4th 382, that the Santa Margarita Water District, and other similarly situated districts, had statutory authority to raise rates on water, notwithstanding argument and evidence that the amount by which the district would be forced to raise its rates would render the water unmarketable.[954] The district acknowledged the existence of fee authority, but argued it was not "sufficient," within the meaning of section 17556(d).[955] The court held that "[t]he Districts in effect ask us to construe 'authority,' as used in the statute, as a practical ability in light of surrounding economic circumstances. However, this construction cannot be reconciled with the plain language of [section 17556(d)] and would create a vague standard not capable of reasonable adjudication."[956] The court concluded: "Thus, the economic evidence presented by SMWD to the Board was irrelevant and injected improper factual questions into the inquiry."[957]

More recently, the Third District Court of Appeal endorsed and followed *Connell* in *Paradise Irrigation District*: "[w]e also reject the Water and Irrigation Districts' claim that, as a matter of practical reality, the majority protest procedure allows water customers to defeat the Districts' authority to levy fees."[958] Instead, the court held, "[w]e adhere to our holding in *Connell* that the inquiry into fee authority constitutes an issue of law rather than a question of fact."[959]
And the 2021 decision of the Second District Court of Appeal in *Department of Finance v. Commission on State Mandates* found that "[e]ven if we assume that drafting or enforcing a law

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[953] *County of Fresno v. State of California* (1990) 53 Cal.3d. 482, 487.

[954] *Connell v. Superior Court* (1997) 59 Cal.App.4th 382, 402.

[955] *Connell v. Superior Court* (1997) 59 Cal.App.4th 382, 398.

[956] *Connell v. Superior Court* (1997) 59 Cal.App.4th 382, 401.

[957] *Connell v. Superior Court* (1997) 59 Cal.App.4th 382, 401.

[958] *Paradise Irrigation District v. Commission on State Mandates* (2019) 33 Cal.App.5th 174, 195.

[959] *Paradise Irrigation District v. Commission on State Mandates* (2019) 33 Cal.App.5th 174, 195.

that imposes fees to pay for inspections would be difficult, the issue is whether the local governments have the authority to impose such a fee, not how easy it would be to do so."[960]

Accordingly, the background rule from these cases is that where the claimant has "authority, i.e., the right or power, to levy fees sufficient to cover the costs" of a state mandated program, reimbursement is not required, notwithstanding other factors that may make the exercise of that authority impractical or undesirable.[961]

b. The claimants have authority to charge regulatory fees sufficient to pay for the requirements in sections XIII.4, IX.1, X.1-3, X.5, and X.8 of the test claim permit related to the inspection of industrial and commercial facilities, and sections VII.C.1, XII.D.5, and XII.E.1 related to LID and hydromodification planning, which are sufficient as a matter of law to cover the costs of the mandated activities within the meaning of Government Code section 17556(d) and, thus, there are no costs mandated by the state for these activities.

i. *The claimants have constitutional and statutory authority to impose regulatory fees, which are exempt from the definition of "tax" under article XIII C of the California Constitution as long as the fees meet a threshold of reasonableness and proportionality.*

Article XI, section 7 of the California Constitution provides: "A county or city may make and enforce within its limits all local, police, sanitary, and other ordinances and regulations not in conflict with general laws."[962] Interpreting this provision, and its predecessor, the courts have held that a local legislative body with police power "has a wide discretion" and its laws or ordinances "are invested with a strong presumption of validity."[963] The courts have held that "the power to impose valid regulatory fees does not depend on legislatively authorized taxing power but exists pursuant to the direct grant of police power under article XI, section 7, of the California Constitution."[964] Accordingly, ordinances or laws regulating legitimate businesses or other activities within a city or county, as well as regulating the development and use of real property, have generally been upheld.[965] In addition, "[t]he services for which a regulatory fee

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[960] *Department of Finance v. Commission on State Mandates* (2021) 59 Cal.App.5th 546, 564, citing to *Connell v. Superior Court* (1997) 59 Cal.App.4th 382, 401.

[961] *County of Fresno v. State of California* (1991) 53 Cal.3d 482, 487; *Connell v. Superior Court* (1997) 59 Cal.App.4th 382,

[962] California Constitution, article XI, section 7.

[963] *Marblehead Land Co. v. City of Los Angeles* (1931) 47 F.2d 528, 532.

[964] *Mills v. County of Trinity* (1980) 108 Cal.App.3d 656, 662 (in which a taxpayer challenged a county ordinance that imposed new and increased fees for county services in processing subdivision, zoning, and other land-use applications that had been adopted without a two-thirds affirmative vote of the county electors).

[965] See *Ex parte Junqua* (1909) 10 Cal.App. 602 (police power "embraces the right to regulate any class of business, the operation of which, unless regulated, may, in the judgment of the appropriate local authority, interfere with the rights of others…"); *Sullivan v. City of Los Angeles*

may be charged include those that are "'incident to the issuance of [a] license or permit, investigation, inspection, administration, maintenance of a system of supervision and enforcement.'"[966] The courts also hold that water pollution prevention is a valid exercise of government police power.[967]

Moreover, a number of provisions of the Government Code provide express authority to impose or increase regulatory fees,[968] and fees for development of real property.[969]

Thus, there is no dispute that the co-permittees have authority, both statutory and constitutional (recognized in case law), to impose fees, including regulatory and development fees.[970] The issue in dispute is only whether Propositions 218 and 26 impose procedural and substantive restrictions that so weaken that authority as to render it insufficient, within the meaning of Government Code section 17556(d).

As discussed, Proposition 13 (1978) added article XIII A to the California Constitution, with the intent to limit local governments' power to impose or increase *taxes*.[971] Proposition 13 generally limited the rate of any ad valorem tax on real property to one percent; limited increases in the assessed value of real property to two percent annually absent a change in ownership; and required that any changes in state taxes enacted to increase revenues and special taxes imposed

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Dept. of Building & Safety (1953) 116 Cal.App.2d 807 (recognizing broad power to regulate not only nuisances but things or activities that may become nuisances or injurious to public health); *California Building Industry Ass'n v. City of San Jose* (2015) 61 Cal.4th 435 (recognizing broad authority of municipality to regulate land use).

[966] *Department of Finance v. Commission on State Mandates* (2021) 59 Cal.App.5th 546, 562, citing to *California Assn. of Prof. Scientists v. Department of Fish & Game* (2000) 79 Cal.App.4th 935, 945.

[967] *Freeman v. Contra Costa County Water Dist.* (1971) 18 Cal.App.3d 404, 408.

[968] See, e.g., Government Code section 37101 ("The legislative body may license, for revenue and regulation, and fix the license tax upon, every kind of lawful business transacted in the city.").

[969] Government Code section 66001 (providing for development fees under the "Mitigation Fee Act," requiring local entity to identify the purpose of the fee and the uses to which revenues will be put, to determine a reasonable relationship between the fee's use and the type of project or projects on which the fee is imposed).

[970] See also, *Ayers v. City Council of City of Los Angeles* (1949) 34 Cal.2d 31 (Upholding conditions imposed by the City on subdivision development, in the absence of any clear restriction or limitation on the City's police power); *Associated Home Builders etc. Inc. v. City of Walnut Creek* (1971) 4 Cal.3d 633 (Upholding state statute and local ordinance requiring dedication or in-lieu fees for parks and recreation as a condition of subdividing for residential building).

[971] See, e.g., *County of Fresno v. State of California* (1991) 53 Cal.3d 482.

by local government must be approved by a two-thirds vote of the electors.[972] Proposition 13, however, did not define "special taxes," and a series of judicial decisions tried to define the difference between fees and taxes, and diminished Proposition 13's import by allowing local governments to generate revenue without a two-thirds vote.[973]

In 1996, Proposition 218 added article XIII C to ensure and reiterate voter approval requirements for general and special taxes, because it was not clear whether Proposition 62, which enacted statutory provisions to ensure that all new local taxes be approved by a vote of the local electorate, bound charter jurisdictions.[974] As added by Proposition 218, article XIII C defined all taxes as general or special, and provided that special districts have no power to impose general taxes; and for any other local government, general taxes require approval by a majority of local voters, and special taxes require a two-thirds majority voter approval.[975]

Interpreting the newly-reiterated limitation on local taxes, the Court in *Sinclair Paint* held that a statute permitting the Department of Health Services to levy fees on manufacturers and other persons contributing to environmental lead contamination, in order to support a program of evaluation and screening of children, imposed bona fide *regulatory fees*, and not, as alleged by plaintiffs, a special tax that would require voter approval under articles XIII A and XIII C.[976] The Court noted with approval *San Diego Gas & Electric*, in which the air district was permitted to recover costs of its operations, which are not reasonably identifiable with specific industrial polluters, against all monitored polluters according to an emissions-based formula, and those fees were not held to constitute a special tax.[977] The *Sinclair Paint* Court cited with approval the court of appeal's finding that "A reasonable way to achieve Proposition 13's goal of tax relief is to shift the costs of controlling stationary sources of pollution from the tax-paying public to the pollution-causing industries themselves…"[978] The *Sinclair Paint* Court thus held: "In our view, the shifting of costs of providing evaluation, screening, and medically necessary follow-up services for potential child victims of lead poisoning from the public to those persons deemed responsible for that poisoning is likewise a reasonable police power decision."[979]

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[972] *Schmeer v. County of Los Angeles* (2013) 213 Cal.App.4th 1310, 1317.

[973] *Schmeer v. County of Los Angeles* (2013) 213 Cal.App.4th 1310, 1317–1319.

[974] *Jacks v. City of Santa Barbara* (2017) 3 Cal.5th 248, 258-259.

[975] See Exhibit Q (9), Excerpts from Voter Information Guide, November 1996 General Election (Proposition 218, November 5, 1996).

[976] *Sinclair Paint Co. v. State Board of Equalization* (1997) 15 Cal.4th 866, 870; 877.

[977] *San Diego Gas & Electric Co. v. San Diego County Air Pollution Control Dist.* (1988) 203 Cal.App.3d 1132, 1148.

[978] *Sinclair Paint Co. v. State Board of Equalization* (1997) 15 Cal.4th 866, 879 (quoting *San Diego Gas & Electric Co. v. San Diego County Air Pollution Control Dist.* (1988) 203 Cal.App.3d 1132, 1148).

[979] *Sinclair Paint Co. v. State Board of Equalization* (1997) 15 Cal.4th 866, 879.

In 2010, the voters adopted Proposition 26, partly in response to *Sinclair Paint*.[980] Proposition 26 sought to broaden the definition of "tax," (and accordingly narrow the courts' construction of permissible non-tax fees). However, Proposition 26 largely *codifies* the analysis of *Sinclair Paint*, in its articulation of the various types of fees and charges that are *not* deemed "taxes."[981] Thus, while Proposition 13 led a series of increasing restrictions on the imposition of new taxes, after *Sinclair Paint*, and Propositions 218 and 26, local governments have the power, subject to varying limitations, to impose or increase (1) general taxes [with voter approval];[982] (2) special taxes [with *two-thirds* voter approval];[983] and (3) levies, charges, or exactions that are not "taxes," pursuant to the exceptions stated in article XIII C, section 1(e), which include:

> (1) A charge imposed for a specific benefit conferred or privilege granted directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of conferring the benefit or granting the privilege.
>
> (2) A charge imposed for a specific government service or product provided directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of providing the service or product.
>
> (3) A charge imposed for the reasonable regulatory costs to a local government for issuing licenses and permits, performing investigations, inspections, and audits, enforcing agricultural marketing orders, and the administrative enforcement and adjudication thereof.
>
> (4) A charge imposed for entrance to or use of local government property, or the purchase, rental, or lease of local government property.
>
> (5) A fine, penalty, or other monetary charge imposed by the judicial branch of government or a local government, as a result of a violation of law.
>
> (6) A charge imposed as a condition of property development.
>
> (7) Assessments and property-related fees imposed in accordance with the provisions of Article XIII D.
>
> The local government bears the burden of proving by a preponderance of the evidence that a levy, charge, or other exaction is not a tax, that the amount is no more than necessary to cover the reasonable costs of the governmental activity, and that the manner in which those costs are allocated to a payor bear a fair or

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[980] See Exhibit Q (10), Excerpts from Voter Information Guide, November 2010 General Election (Proposition 26, Nov. 2, 2010), page 3.

[981] *City of San Buenaventura v. United Water Conservation Dist.* (2017) 3 Cal.5th 1191, 1210, Fn. 7 (citing *Jacks v. City of Santa Barbara* (2017) 3 Cal.5th 248, 262 and Fn 5).

[982] California Constitution, article XIII C, section 2.

[983] California Constitution, article XIII C, section 2.

reasonable relationship to the payor's burdens on, or benefits received from, the governmental activity.[984]

The plain language of article XIII C, section 1(e) thus describes certain categories of fees or exactions that are not taxes, including fees or charges for a benefit conferred or privilege granted,[985] and fees or charges for a government service or product provided to the payor and not others.[986] Both of these could be described as "user" fees, or otherwise described as fees for a government service or benefit. In addition, section 1(e) provides for regulatory fees (including those for inspections),[987] development fees,[988] and assessments or property-related fees or charges adopted in accordance with article XIII D.[989] In each case, the local government bears the burden to establish that the fee or charge is not a tax, including that "the amount is no more than necessary to cover the reasonable costs of the governmental activity, and that the manner in which those costs are allocated to a payor bear a fair or reasonable relationship to the payor's burdens on, or benefits received from, the governmental activity."[990]

The claimants argue that it would be legally impossible for local government to develop a fee that allocates to the individual fee payor the portion of the program costs attributable to the burdens that the payor places on the MS4.[991]

However, while the limitations of article XIII C, section 1(e) may be newly expressed in the Constitution (i.e., added in 2010 by Proposition 26), the concepts that regulatory fees must be reasonably related to a legitimate public purpose, and in some way proportional to the activity being regulated, are not at all new. The California Supreme Court described the history of such fees in *United Water Conservation Dist.*, saying, "the language of Proposition 26 is drawn in large part from pre-Proposition 26 case law distinguishing between taxes subject to the requirements of article XIII A, on the one hand, and regulatory and other fees, on the other."[992] The Court also noted: "*Sinclair Paint*, from which the relevant article XIII C requirements are derived, made clear that the aggregate cost inquiry and the allocation inquiry are two separate steps in the analysis."[993] Accordingly, the Court upheld the court of appeal's finding that the conservation charges did not exceed the reasonable cost of the regulatory activity in the

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[984] California Constitution, article XIII C, section 1(e).

[985] California Constitution, article XIII C, section 1(e)(1).

[986] California Constitution, article XIII C, section 1(e)(2).

[987] California Constitution, article XIII C, section 1(e)(3).

[988] California Constitution, article XIII C, section 1(e)(6).

[989] California Constitution, article XIII C, section 1(e)(7).

[990] California Constitution, article XIII C, section 1(e).

[991] Exhibit E, Claimants' Rebuttal Comments, Volume 1, filed June 17, 2011, pages 63-64.

[992] *City of San Buenaventura v. United Water Conservation Dist.* (2017) 3 Cal.5th 1191, 1210, Fn. 7 (citing *Jacks v. City of Santa Barbara* (2017) 3 Cal.5th 248, 262 and Fn 5).

[993] *City of San Buenaventura v. United Water Conservation Dist.* (2017) 3 Cal.5th 1191, 1210.

aggregate,[994] but presumed "each requirement to have independent effect,"[995] and remanded the matter for consideration of the latter issue.

Similarly, in *San Diego County Water Authority*, the First District Court of Appeal upheld non-property-related rates charged for conveying water from the Colorado River based on a two-part test.[996] The rates were held to satisfy both the express requirements of article XIII C, section 1(e)(2): "a specific service (use of the conveyance system) directly to the payor (a member agency) that is not provided to those not charged and which does not exceed the reasonable costs…of providing the service"; and the more general test of *Sinclair Paint*: "[the volumetric rates] bear a fair and reasonable relationship to the benefits it receives from its use of the conveyance system."[997]

Notably, developer fees have been interpreted somewhat more loosely with respect to this proportionality test. The plain language of article XIII C, section 1(e)(6) conspicuously omits any language relating to the reasonable costs or burdens of development, although the general caveat at the end of section 1(e) presumably still applies: "that the amount is no more than necessary to cover the reasonable costs of the governmental activity, and that the manner in which those costs are allocated to a payor bear a fair or reasonable relationship to the payor's burdens on, or benefits received from, the governmental activity."[998] However, the court in *616 Croft Ave., LLC* suggests that as long as a development fee is "reasonably related to the broad general welfare purposes for which the ordinance was enacted,"[999] the courts will not inquire into the reasonableness of the fee as applied to a particular payor:

> [A]lthough the fee must be reasonable, the inquiry is not about the reasonableness of the individual calculation of fees related to Croft's development's impact on affordable housing. The inquiry is whether the fee schedule *itself* is reasonably related to the overall availability of affordable housing in West Hollywood.[1000]

The court relied in part on article XIII D, section 1, which states that "[n]othing in this article or Article XIII C shall be construed to…[a]ffect exiting laws relating to the imposition of fees as a condition of property development."[1001]

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[994] *City of San Buenaventura v. United Water Conservation Dist.* (2017) 3 Cal.5th 1191, 1212.

[995] *City of San Buenaventura v. United Water Conservation Dist.* (2017) 3 Cal.5th 1191, 1214 (citing *Dix v. Superior Court* (1991) 53 Cal.3d 442, 459).

[996] *San Diego County Water Authority v. Metropolitan Water Dist. of Southern California* (2017) 12 Cal.App.5th 1124, 1153.

[997] *San Diego County Water Authority v. Metropolitan Water Dist. of Southern California* (2017) 12 Cal.App.5th 1124, 1153.

[998] California Constitution, article XIII C, section 1(e).

[999] *616 Croft Ave., LLC v. City of West Hollywood* (2016) 3 Cal.App.5th 621, 631.

[1000] *616 Croft Ave., LLC v. City of West Hollywood* (2016) 3 Cal.App.5th 621, 631-632.

[1001] *616 Croft Ave., LLC v. City of West Hollywood* (2016) 3 Cal.App.5th 621, 631 ("Because the City has shown the fees are not special taxes under *Terminal Plaza* [*Corp. v. City and County of*

Moreover, the courts have found that regulatory fees are flexible, and the Third District Court of Appeal in *California Assn. of Prof. Scientists v. Department of Fish & Game (Professional Scientists)* has identified the following general rules:

> General principles have emerged. Fees charged for the associated costs of regulatory activities are not special taxes under an article XIII A, section 4 analysis if the " ' "fees do not exceed the reasonable cost of providing services necessary to the activity for which the fee is charged and [they] are not levied for unrelated revenue purposes." ' " (Citation omitted.) "A regulatory fee may be imposed under the police power when the fee constitutes an amount necessary to carry out the purposes and provisions of the regulation." (Citation omitted.) "Such costs ... include all those incident to the issuance of the license or permit, investigation, inspection, administration, maintenance of a system of supervision and enforcement." (Citation omitted.) Regulatory fees are valid despite the absence of any perceived "benefit" accruing to the fee payers. (Citation omitted.) Legislators "need only apply sound judgment and consider 'probabilities according to the best honest viewpoint of informed officials' in determining the amount of the regulatory fee." (Citation omitted).[1002]

Accordingly, and with *Sinclair Paint*, *San Diego Gas & Electric*, *Professional Scientists*, and others as examples, there is no reason to believe that article XIII C imposes any greater limitation on local governments' authority under their police power to impose reasonable regulatory fees and other fees than existed under prior law. Article XIII C makes clear that the burden is on the local government to establish that the levy is not a tax, that the fee is reasonably related to the costs to government in the aggregate, and that the fee charged to the payors is reasonably related to the benefits received or burdens created by such payors as a part of the rate setting process.[1003] It is not the burden of the state to make this showing on behalf of local government.

Here, the claimants have imposed on themselves the opposite incentive: they do not wish to impose new fees, nor establish that such fees do not constitute a tax; instead they seek mandate reimbursement. They argue the impossibility of imposing or increasing fees, even as *Sinclair Paint* and *616 Croft Ave.* show that the reasonableness and proportionality tests to which courts have subjected other proposed fees do not present such a hurdle as to effectively divest them of the authority to impose fees. In addition, there is ample evidence that the claimants do in fact impose development fees, regulatory fees, and other fees that they have successfully established as fees, rather than taxes, even after the adoption of Propositions 218 and 26. For example, the

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San Francisco (1986) 177 Cal.App.3d 892], articles XIII C and XIII D of the California Constitution do not require the City to demonstrate the reasonableness of Croft's individual fee.").

[1002] *California Assn. of Prof. Scientists v. Department of Fish & Game* (2000) 79 Cal.App.4th 935, 945.

[1003] California Constitution, article XIII C, section 1(e).

County of Orange updated its fee schedule for development and building permits on March 10, 2015, and made the following findings:

> NOW, THEREFORE, be it resolved that this Board does hereby:
>
> 1. Find that the adoption of the Resolution approving the proposed fee schedule is Statutorily Exempt from the provisions of CEQA pursuant to Section 15273(a)(1) and (a)(2) of the CEQA Guidelines as the establishment or modification of rates, fees, and charges which are for the purpose of meeting operating expenses, including employee wage rates and fringe benefits and purchasing or leasing supplies, equipment, or materials.
> 2. Find that these fees meet the requirements set forth in subdivision (e)(2), (e)(3), or (e)(5), as applicable, of Section 1 Article XIII C of the California Constitution, and are therefore exempt from the definition of a tax as used therein.
> 3. Find that the revenue resulting from the fees established pursuant to this resolution will not exceed the estimated reasonable costs to provide the services and that the costs of providing these services are reasonably allocated among the fees established hereby.[1004]

Based on the foregoing, the Commission finds that article XIII C of the California Constitution does not render local government's authority to impose fees insufficient as a matter of law within the meaning of Government Code section 17556.

ii. *There are no costs mandated by the state for the inspection of industrial and commercial facilities required by Sections XIII.4, IX.1, X.1-3, X.5, and X.8 of the test claim permit.*

As indicated above, the following activities mandate a new program or higher level of service:

- Distribute educational information (Fact Sheets) during commercial and industrial facility inspection visits. (Section XIII.4.)[1005]
- Include GIS mapping in the inventories of industrial and commercial facilities. (Section X.1.)[1006]

[1004] Exhibit Q (17), Orange County Development Fee Ordinance, March 10, 2015, page 1.

[1005] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 332 [Order No. R8-2009-0030, Section XIII.4].

[1006] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 311 [Order No. R8-2009-0030, section IX.1]; Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 313 [Order No. R8-2009-0030, Section X.1].

- Conduct inspections of the new categories of commercial facilities, and provide a copy of the database for the *new* categories of commercial facilities to the Regional Board with each annual report. (Sections X.1, X.3, and X.5.)[1007]
- Develop a prioritization and inspection schedule. (Section X.2.)[1008]
- Develop a mobile business pilot program. (Section X.8.)[1009]

However, there are no costs mandated by the state for these activities.

Consistent with the above analysis of article XIII C, section 1(e)(3), the 2021 *Department of Finance* decision of the Second District Court of Appeal addressed NPDES permit requirements issued by the Los Angeles Regional Water Quality Control Board to periodically inspect commercial and industrial facilities to ensure compliance with various environmental regulatory requirements.[1010] The court found that the local agencies subject to that permit had the authority under their police powers to charge regulatory fees for the inspection activities:

> We agree with the Commission that, based upon the local governments' constitutional police power and their ability to impose a regulatory fee that (1) does not exceed the reasonable cost of the inspections, (2) is not levied for unrelated revenue purposes, and (3) is fairly allocated among the fee payers, the local governments have such authority.[1011]

Even though the imposition of the fee may be difficult, the court held that local governments have the authority to impose the fee and, thus, reimbursement under article XIII B, section 6 was not required:

> The local governments also argue that a fee that must be no more than necessary to cover the reasonable costs of the inspections "would be difficult to accomplish." They refer to problems that would arise from a general business license fee on all businesses, including those not subject to inspection, and to charging fees for inspections in years in which no inspection would take place. Even if we assume that drafting or enforcing a law that imposes fees to pay for inspections would be difficult, the issue is whether the local governments have the authority to impose such a fee, not how easy it would be to do so. (*Connell v.*

[1007] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 313-314 [Order No. R8-2009-0030, Sections X.1, X.5]; Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 314 [Order No. R8-2009-0030, Section X.3].

[1008] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 314 [Order No. R8-2009-0030, Section X.2].

[1009] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 315 [Order No. R8-2009-0030, Section X.8].

[1010] *Department of Finance v. Commission on State Mandates* (2021) 59 Cal.App.5th 546, 552.

[1011] *Department of Finance v. Commission on State Mandates* (2021) 59 Cal.App.5th 546, 562-563.

Superior Court (1997) 59 Cal.App.4th 382, 401, 69 Cal.Rptr.2d 231.) As explained above, the police powers provision of the constitution and the judicial authorities we have cited provide that authority.[1012]

In addition, the courts have explained that the scope of a regulatory fee is somewhat flexible, is valid as long as it relates to the overall purpose of the regulatory governmental action, and can include inspection, administration, and maintenance of a system of supervision and enforcement.[1013]

Therefore, the Commission finds that local agencies have fee authority sufficient as a matter of law to cover the cost of the following industrial and commercial inspection activities within the meaning of Government Code section 17556(d):

- Distribute educational information (Fact Sheets) during commercial and industrial facility inspection visits.[1014]
- Include GIS mapping in the inventories of industrial and commercial facilities.[1015]
- Conduct inspections of the new categories of commercial facilities, and provide a copy of the database for the *new* categories of commercial facilities to the Regional Board with each annual report.[1016]
- Develop a prioritization and inspection schedule.[1017]
- Develop a mobile business pilot program.[1018]

[1012] *Department of Finance v. Commission on State Mandates* (2021) 59 Cal.App.5th 546, 564-565.

[1013] *California Farm Bureau Federation v. State Water Resources Control Board* (2011) 51 Cal.4th 421, 438, citing to *California Assn. of Prof. Scientists v. Department of Fish & Game* (2000) 79 Cal.App.4th 935, 945.

[1014] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 332 [Order No. R8-2009-0030, Section XIII.4].

[1015] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 311 [Order No. R8-2009-0030, Section IX.1.], 313 [Order No. R8-2009-0030, Section X.1].

[1016] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 313-314 [Order No. R8-2009-0030, Sections X.1, X.5; Order No. R8-2009-0030, Section X.3].

[1017] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 314 [Order No. R8-2009-0030, Section X.2].

[1018] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 315 [Order No. R8-2009-0030, Section X.8].

Accordingly, there are no costs mandated by the state for the inspection of industrial and commercial facilities and the activities required by Sections XIII.4, IX.1, X.1-3, X.5, and X.8 are denied.

iii. *There are no costs mandated by the state for the LID and hydromodification planning activities required by Sections VII.C.1, XII.D.5, and XII.E.1 of the test claim permit.*

As indicated above, the following LID and hydromodification planning activities mandate a new program or higher level of service:

- Within 12 months of adoption of this order, update the model WQMP to incorporate LID principles (as per Section XII.C) and to address the impact of urbanization on downstream hydrology (as per Section XII.D) and a copy of the updated model WQMP shall be submitted for review and approval by the Executive Officer. (Section VII.C.1.)[1019]
- Prepare a Watershed Master Plan to address the hydrologic conditions of concern on a watershed basis. The Watershed Master Plans shall integrate water quality, hydromodification, water supply, and habitat for the following watersheds: Coyote Creek-San Gabriel River; Anaheim Bay-Huntington Harbour; Santa Ana River; and Newport Bay-Newport Coast. Components of the Plan shall include: (1) maps to identify areas susceptible to hydromodification including downstream erosion, impacts on physical structure, impacts on riparian and aquatic habitats and areas where storm water and urban runoff infiltration is possible and appropriate; and, (2) a hydromodification model to make available as a tool to enable proponents of land development projects to readily select storm water preventive and mitigative site BMP measures. The maps shall be prepared within 12 months of the adoption of this order and a model Plan for one watershed shall be prepared within 24 months of adoption of this order. The model Watershed Master Plan shall be submitted to the Executive Officer for approval. Watershed Master Plans shall be completed for all watersheds 24 months after approval of the model Watershed Master Plan. The Watershed Master Plans shall be designed to meet applicable water quality standards and the Federal Clean Water Act. (Section XII.D.5.)[1020]
- Within 12 months of adoption of this order, the principal permittee, in collaboration with the co-permittees, shall develop technically-based feasibility criteria for project evaluation to determine the feasibility of implementing LID BMPs (feasibility to be based in part, on the issues identified in Section XII.C). This plan shall be submitted to the Executive Officer for approval. Only those projects that have completed a vigorous feasibility analysis as per the criteria developed by the permittees and approved by the Executive Officer should be considered for alternatives and in-lieu programs. If a

[1019] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 323 [Order No. R8-2009-0030].

[1020] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 328 [Order No. R8-2009-0030].

particular BMP is not technically feasible, other BMPs should be implemented to achieve the same level of compliance, or if the cost of BMP implementation greatly outweighs the pollution control benefits, a waiver of the BMPs may be granted. All requests for waivers, along with feasibility analysis including waiver justification documentation, must be submitted to the Executive Officer in writing, 30 days prior to permittee approval. (Section XII.E.1.)[1021]

The claimants contend that they do not have valid fee authority for the LID and hydromodification planning activities for the following reasons: (1) the requirements generally benefit downstream communities and the citizens of Orange County, and not just the developers of priority development projects and, thus, any fee would be a tax; and (2) the number of priority development projects utilizing the LID and hydromodification Plan requirements was unknown when the requirements were developed and, thus, the claimant had no way to fairly allocate costs in accordance with the law.[1022]

The Commission finds that the claimants arguments are misplaced and that they have valid authority under their police powers to charge regulatory fees on all project developers sufficient as a matter of law within the meaning of Government Code section 17556(d) to cover the costs of developing LID and hydromodification planning documents required by Sections VII.C.1, XII.D.5, and XII.E.1 of the test claim permit and, thus, there are no costs mandated by the state for these activities.

As indicated above, the plain language of Proposition 26, or article XIII C, section 1(e), describes certain categories of fees or exactions that are not taxes, including fees or charges for a benefit conferred or privilege granted,[1023] fees or charges for a government service or product provided to the payor and not others,[1024] reasonable regulatory fees for permits,[1025] and charges imposed as a condition of property development.[1026]

As the court in *Professional Scientists* made clear, regulatory fees may be imposed under the police power when the fee constitutes an amount necessary to carry out the purposes and provisions of the regulation and includes all costs incident to the issuance of the license or permit, investigation, inspection, administration, maintenance of a system of supervision and enforcement. Regulatory fees are valid despite the absence of any perceived "benefit" accruing to the fee payers. The claimants "need only apply sound judgment and consider 'probabilities

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[1021] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 328-329 [Order No. R8-2009-0030].

[1022] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, pages 38-40.

[1023] California Constitution, article XIII C, section 1(e)(1).

[1024] California Constitution, article XIII C, section 1(e)(2).

[1025] California Constitution, article XIII C, section 1(e)(3).

[1026] California Constitution, article XIII C, section 1(e)(6).

according to the best honest viewpoint of informed officials' in determining the amount of the regulatory fee."[1027]

Here, creating the LID and hydromodification plans constitute costs that are incident to development permits, which the claimants will issue to priority development projects. This is made clear in the language of the mandated activities:

- Update the model WQMP to incorporate LID principles (as per Section XII.C) and to address the impact of urbanization on downstream hydrology (as per Section XII.D) and a copy of the updated model WQMP shall be submitted for review and approval by the Executive Officer. (Section VII.C.1.)[1028]

  As explained in the test claim permit findings, "[t]he model WQMP provides a framework to incorporate watershed protection principles into the permittees planning, construction and post-construction phases of defined new and redevelopment projects. The model WQMP includes site design, source control and treatment control elements to reduce the discharge of pollutants in urban runoff. On September 26, 2003, the Regional Board approved the model WQMP. The permittees have incorporated provisions of the model WQMP into their LIPs. The permittees are requiring new developments and significant redevelopments to develop and implement appropriate project WQMPs."[1029]

- Prepare a Watershed Master Plan to address the hydrologic conditions of concern on a watershed basis. The Watershed Master Plans shall integrate water quality, hydromodification, water supply, and habitat for specified watersheds. Components of the Plan shall include: (1) maps to identify areas susceptible to hydromodification including downstream erosion, impacts on physical structure, impacts on riparian and aquatic habitats and areas where storm water and urban runoff infiltration is possible and appropriate; and, (2) a hydromodification model to make available as a tool to *enable proponents of land development projects* to readily select storm water preventive and mitigative site BMP measures. (Section XII.D.5.)[1030]

- Within 12 months of adoption of this order, the principal permittee, in collaboration with the co-permittees, shall develop technically-based feasibility criteria *for project evaluation* to determine the feasibility of implementing LID BMPs (feasibility to be based in part, on the issues identified in Section XII.C). This plan shall be submitted to the Executive Officer for approval. Only those projects that have completed a vigorous feasibility analysis as per the criteria developed by the permittees and approved by the

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[1027] *California Assn. of Prof. Scientists v. Department of Fish & Game* (2000) 79 Cal.App.4th 935, 945.

[1028] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 323 [Order No. R8-2009-0030].

[1029] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 291 [Order No. R8-2009-0030, Finding 63].

[1030] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 328 [Order No. R8-2009-0030].

> Executive Officer should be considered for alternatives and in-lieu programs. If a particular BMP is not technically feasible, other BMPs should be implemented to achieve the same level of compliance, or if the cost of BMP implementation greatly outweighs the pollution control benefits, a waiver of the BMPs may be granted. All requests for waivers, along with feasibility analysis including waiver justification documentation, must be submitted to the Executive Officer in writing, 30 days prior to permittee approval. (Section XII.E.1.)[1031]

The claimants admit that the LID and hydromodification planning activities benefit project developers.[1032]

However, they also contend that the LID and hydromodification planning requirements generally benefit downstream communities and all citizens of Orange County, and not just the developers of priority development projects and, thus, they assert that any fee would in fact be a tax, citing *Newhall County Water Dist. v. Castaic Lake Water Agency* and *Department of Finance v. Commission on State Mandates* (*Municipal Stormwater and Urban Runoff Discharges*).[1033] The claimants' reliance on these cases is misplaced.

In *Newhall*, the issue was whether rates that a public water wholesaler of imported water charged to four public retail water purveyors violated Proposition 26. Part of the wholesaler's rates consisted of a fixed charge based on each retailer's rolling average of demand for the wholesaler's imported water and for groundwater which was not supplied by the wholesaler. Although the wholesaler was required to manage groundwater supplies in the basin, it did not sell groundwater to the retailers.[1034] The court determined the rates did not qualify as fees under Proposition 26. As indicated above, Proposition 26 states a levy is not a tax where it is imposed "for a specific government service provided directly to the payor that is not provided to those not charged . . . ." The only specific government service the wholesaler provided to the retailers was

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[1031] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, pages 328-329 [Order No. R8-2009-0030].

[1032] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, pages 24-25 ["Proposed Sections XII.B through XII.E of the 2009 Permit require Claimants to devise plans to incorporate best management practices ("BMPs") regarding Low Impact Development ("LID") and hydromodification principles ("HMP") *into PDPs"*; "Section XII contains several distinct requirements for Claimants to develop planning documents to govern Water Quality Management Plans ("WQMPs") *used by PDP developers"*; "The [Watershed] Master Plan must include maps to identify areas susceptible to hydromodification and a hydromodification model *to use as a tool for project developers* to select storm water preventative and mitigative site BMPs." Emphasis added.]

[1033] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 38 [citing *Newhall County Water Dist. v. Castaic Lake Water Agency* (2016) 243 Cal.App.4th 1430, 1451, and *Department of Finance v. Commission on State Mandates* (2021) 59 Cal.App. 5th 546, 569].

[1034] *Newhall County Water Dist. v. Castaic Lake Water Agency* (2016) 243 Cal.App.4th 1430, 1434-1440.

imported water. It did not provide groundwater, and the groundwater management activities it provided were not services provided just to the retailers. Instead, those activities "redound[ed] to the benefit of all groundwater extractors in the Basin[.]"[1035] The wholesaler could not base its fee and allocate its costs based on groundwater use because the wholesaler's groundwater management activities were provided to those who were not charged with the fee.[1036]

Similarly, *Department of Finance* (*Municipal Stormwater and Urban Runoff Discharges*) addressed property-related fees under Proposition 218 as they relate to the transit trash requirements. Under Proposition 218, or article XIII D, section 6, the proponent of a property-related fee has to also establish that the fee is not for general governmental services; where the service is available to the public at large in substantially the same manner as it is to property owners. The court found that Proposition 218 prohibits MS4 permittees from charging property owners for the cost of providing trash receptacles at public transit locations in part because the service was made available to the public at large.

> . . . common sense dictates that the vast majority of persons who would use and benefit from trash receptacles at transit stops are not the owners of adjacent properties but rather pedestrians, transit riders, and other members of the general public; any benefit to property owners in the vicinity of bus stops would be incidental. Even if the state agencies could establish that the need for the trash receptacles is in part attributable to adjacent property owners and that the property owners would use the trash receptacles (see Cal. Const., art. XIII D, § 6, subd. (b)(3)–(4)), the placement of the receptacles at public transit stops makes the "service available to the public at large in substantially the same manner as it is to property owners" (id., art. XIII D, § 6, subd. (b)(3)). The state agencies, therefore, failed to establish that the local governments could impose on property owners adjacent to transit stops a fee that could satisfy these constitutional requirements.[1037]

This case is different. The service provided directly to developers of priority development projects are the LID and hydromodification plans to assist in the preparation, implementation, and approval of water pollution mitigations for those projects. Unlike in *Newhall* and *Department of Finance*, that service is not provided to anyone else, and only affected priority project developers will be charged for the service. The service will not be provided to those not charged. Even if the citizens of Orange County receive some indirect benefit from this service, as suggested by the claimants, that does not make the fee a tax under the plain language of Proposition 26. Fees are not taxes under Proposition 26 when they are charges for a benefit conferred or privilege granted,[1038] for a government service or product provided to the payor and

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[1035] *Newhall County Water Dist. v. Castaic Lake Water Agency* (2016) 243 Cal.App.4th 1430, 1451.

[1036] *Newhall County Water Dist. v. Castaic Lake Water Agency* (2016) 243 Cal.App.4th 1430, 1451.

[1037] *Department of Finance v. Commission on State Mandates* (2021) 59 Cal.App.5th 546, 568-569.

[1038] California Constitution, article XIII C, section 1(e)(1).

not others,[1039] reasonable regulatory fees for permits,[1040] and charges imposed as a condition of property development.[1041]

The claimants' second point - that they had no way to fairly allocate costs in accordance with the law because they did not know the number of priority development projects utilizing the LID and hydromodification plan requirements when the requirements were developed - also fails. Setting the fee does not require mathematical precision. When setting the amount of the fee, local agencies need only "consider 'probabilities according to the best honest viewpoint of [their] informed officials.'"[1042] "No one is suggesting [that the claimants] levy fees that exceed their costs."[1043]

In addition, there is no evidence in the record indicating that the claimants cannot levy a fee that will bear a reasonable relationship to the burdens created by future priority development. "A regulatory fee does not become a tax simply because the fee may be disproportionate to the service rendered to individual payors.[1044] The question of proportionality is not measured on an individual basis. Rather, it is measured collectively, considering all rate payors.[1045] Thus, permissible fees must be related to the overall cost of the governmental regulation. They need not be finely calibrated to the precise benefit each individual fee payor might derive, or the precise burden each payer may create. What a fee cannot do is exceed the reasonable cost of regulation with the generated surplus used for general revenue collection. "An excessive fee that is used to generate general revenue becomes a tax."[1046]

Moreover, the claimants' authority to levy a fee is not contingent on future developers, only the actual collection of the fee is contingent. The authority to levy the fee is derived from their police power, and nothing in the claimants' arguments indicates permittees do not have the authority to levy fees for the HMP and the LID planning requirements.

Accordingly, there are no costs mandated by the state for the LID and hydromodification planning activities and, thus, Sections VII.C.1, XII.D.5, and XII.E.1 are denied.

[1039] California Constitution, article XIII C, section 1(e)(2).

[1040] California Constitution, article XIII C, section 1(e)(3).

[1041] California Constitution, article XIII C, section 1(e)(6).

[1042] *California Farm Bureau Federation v. State Water Resources Control Board* (2011) 51 Cal.4th 421, 438

[1043] *Connell v. Superior Court* (1997) 59 Cal.App.4th 382, 402.

[1044] *Brydon v. East Bay Mun. Utility Dist.* (1994) 24 Cal.App.4th 178, 194.

[1045] *California Assn. of Prof. Scientists v. Department of Fish & Game* (2000) 79 Cal.App.4th 935, 948.

[1046] *California Farm Bureau Federation v. State Water Resources Control Bd.* (2011) 51 Cal.4th 421, 438.

c. The claimants do not have the authority to levy property-related fees within the meaning of Government Code section 17556(d) when voter approval of the fee is first required and, thus, from June 1, 2009 through December 31, 2017, there are costs mandated by the state for the remaining new activities mandated by sections XVIII.8-9, XIII.1, XIII.4, XIII.7, and XI.4 of the test claim permit. However, there are ***no*** costs mandated by the state within the meaning of Government Code section 17556(d) for these activities, beginning January 1, 2018, when, based on the plain language of SB 231, stormwater property-related fees became exempt from the voter approval requirements of article XIII D.

As indicated above, the following remaining activities mandate a new program or higher level of service:

- Submit a proposed Cooperative Watershed Program that will fulfill applicable requirements of the selenium TMDL implementation plan within 24 months of adoption of the test claim permit, or one month after approval of the Regional Board selenium TMDLs by OAL, whichever is later. (Section XVIII.B.8.)[1047]
- Develop a "constituent-specific source control plan" for copper, lead, and zinc, including a monitoring program, to ensure compliance" with WLAs for dry and wet weather runoff, which were derived from the 2007 San Gabriel River Metals TMDL jointly developed by the Los Angeles Water Board and U.S. EPA. (Section XVIII.B.9.)[1048]
- Public education program:
    - By July 1, 2012, the one-time activity to complete a public awareness survey to determine the effectiveness of the current public and business education strategy, and to include the findings of the survey and any proposed changes to the current program in the annual report for 2011-2012. (Section XIII.1.)[1049]
    - Permittees shall administer individual or regional workshops for each of the specified sectors (manufacturing facilities; mobile service industry; commercial, distribution, and retail sales industry; residential/commercial landscape construction and service industry; residential and commercial construction industry; and residential and community activities) by July 1, 2010 and annually thereafter. (Section XIII.4.)[1050]
    - The principal permittee, in collaboration with the co-permittees, shall develop and implement a mechanism for public participation in the updating and implementation

[1047] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 343 [Order No. R8-2009-0030, Section XVIII.B.8].

[1048] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 343 [Order No. R8-2009-0030, Section XVIII.B.9].

[1049] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 332 [Order No. R8-2009-0030, Section XIII.1].

[1050] Exhibit A, Joint Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 332 [Order No. R8-2009-0030, Section XIII.4].

of DAMPs, WQMP guidance, and Fact Sheets for "various activities." The public shall be informed of the availability of these documents through public notices in local newspapers, County or city websites, local libraries, city halls, or courthouses. (Section XIII.7.)[1051]

- Within 18 months of adoption, develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies. (Section XI.4.)[1052]

The claimants have constitutional police power (Cal. Const., art. XI, § 7) and statutory authority[1053] to impose property-related fees for the remaining new state mandated activities to submit a proposed Cooperative Watershed Program to comply with the selenium TMDL, to develop a constituent-specific source control plan to comply with the San Gabriel metals TMDL, the new mandated public education activities, and the mandate to develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies pursuant to Sections XVIII.8-9, XIII.1, XIII.4, XIII.7, and XI.4 of the test claim permit. An example of such a property-related stormwater fee that covers the costs of complying "with applicable local, state, and federal stormwater regulations," which would include the activities here, is the property-related fee adopted in 2014 by the City of San Clemente (which is not a permittee under the test claim permit), and was in effect from February 7, 2014 through June 30, 2020.[1054] In addition, the California Stormwater Quality Association (CASQA) has provided information to local agencies on how they can properly develop stormwater fees, including links to several fee ordinances passed by other cities.[1055]

As described below, however, stormwater property-related fees are subject to Proposition 218, or article XIII D of the California Constitution, which until January 1, 2018, required voter approval before new or increased fees could be charged. Effective January 1, 2018, SB 231 defined "sewer" to include stormwater as an exception to the voter approval requirement in article XIII D, which then makes only the voter protest provisions of article XIII D apply to property-related stormwater fees.

[1051] Exhibit A, Joint Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 333 [Order No. R8-2009-0030, Section XIII.7].

[1052] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 316-317 [Order No. R8-2009-0030, Section XI.4].

[1053] See, e.g., Health and Safety Code section 5471 (fees for storm drainage maintenance and operation); Government Code sections 38902 (providing for sewer standby charges); 53750 et seq. (Proposition 218 Omnibus Implementation Act, describing procedures for adoption of assessments, fees and charges); 53751 (as amended in 2017, providing that fees for sewer services includes storm sewers).

[1054] Exhibit Q (3), City of San Clemente Municipal Code, title 13, chapter 13.34, sections 13.34.010-13.34.030.

[1055] Exhibit Q (1), CASQA, Fee Study and Ordinance, https://www.casqa.org/resources/funding-resources/creating-stormwater-utility/fee-study-and-ordinance (accessed November 23, 2022).

The claimants argue that any fees developed by the co-permittees to fund the portions of the MS4 Permit would be a property-related fee that would require a majority vote of the property owners subject to the fee and, thus, claimants do not have authority sufficient as a matter of law to impose a stormwater fee within the meaning of Government Code section 17556(d).[1056] The claimants also contend that SB 231 is unconstitutional as "an invalid attempt to legislatively modify the California Constitution" as follows:

> Proposition 218, which passed in 1996 and enacted article XIII D, section 6 of the state Constitution ("article XIII D, section 6"), establishing restrictions on the imposition of property-related fees, reflected voter intent to treat sewers as limited to sanitary sewer facilities, and not storm sewers or storm drains. This voter intent cannot be legislatively overridden by SB 231. Therefore, SB 231 should not be relied upon by the Commission to deny Claimants a subvention of funds for activities occurring after January 1, 2018, the effective date of the statute.[1057]

The claimants argue that SB 231 is unconstitutional because:

- The plain language and structure of Proposition 218 do not support SB 231's definition of "sewer." The plain meaning of article XIII D, section 6(c) is that the term "sewer" or "sewer services" pertains only to sanitary sewers and not to MS4s. In attempting to expand the facilities and services covered by this term, SB 231 is an invalid modification of Proposition 218 that seeks to override voter intent.[1058]
- The statutes relied on by the Legislature when enacting SB 231 present only limited examples of how the term "storm sewer" or "sanitary sewer" were employed. "It is clear that in all, a distinction is drawn between sanitary sewers and storm sewers."[1059]
- There is significant evidence that the Legislature and the courts considered "sewers" to be different from "storm drains" prior to the adoption of Proposition 218. Thus, there was no "plain meaning" of "sewer" as a term that meant both sanitary and storm sewers, as stated in in the legislative findings.[1060]

[1056] Exhibit E, Claimants' Rebuttal Comments, Volume 1, filed June 17, 2011, page 68.

[1057] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 33; see also pages 41-48.

[1058] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, pages 43-45.

[1059] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, pages 46-47.

[1060] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, pages 47-48.

Finally, the claimants contend that "[t]o the extent that SB 231 has any application to the Test Claim, Claimants concur with the finding that SB 231 is not retroactive."[1061]

The Water Boards contend that the claimants have fee authority sufficient as a matter of law to cover the costs of the mandated activities during the entire period of reimbursement pursuant to Government Code section 17556(d), and that this Test Claim should be denied as follows:

- A voter approval requirement does not divest claimants of legal authority to impose fees. The court's reasoning with respect to the voter protest provisions in *Paradise Irrigation District* (where the voter protest requirement were construed as a power-sharing arrangement between the districts and their customers, rather than a deprivation of fee authority) apply equally when voter approval is required.[1062]
- Even if the Commission finds that the voter approval requirements divest the claimants of their fee authority, the Commission should require the claimants to show they attempted, but failed, to establish the fees due to the voter approval provisions before reimbursement is required.

  > If claimants fail to even attempt to secure voter approval, such as by never bringing a fee proposal to their voters in the first place, they cannot demonstrate that the voter approval provision was an obstacle to imposing necessary fees. Any other conclusion results in the inequitable situation in which local agencies may decline to seek voter approval for a necessary fee instead choosing to seek reimbursement from the state based on the assertion that the agency lacks fee authority sufficient as a matter of law under Government Code section 17556, subdivision (d).[1063]

- Claimants are not entitled to any reimbursement for costs for any mandated activities on and after January 1, 2018.

The Department of Finance also urges the Commission to find that the claimants have fee authority sufficient as a matter of law to cover the costs of the mandated activities pursuant to Government Code section 17556(d), and further asserts that SB 231 applies to the full period of reimbursement. "However, because SB 231 was a clear overruling of the wrongly-decided *City of Salinas* case, the Commission should also find that from the beginning of the potential period of reimbursement the voter approval requirement did not apply to claimants and therefore did not impede their fee authority."[1064]

[1061] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 42.

[1062] Exhibit N, Water Boards' Comments on the Draft Proposed Decision, filed November 4, 2022, pages 5-7.

[1063] Exhibit N, Water Boards' Comments on the Draft Proposed Decision, filed November 4, 2022, pages 7-8.

[1064] Exhibit O, Finance's Comments on the Draft Proposed Decision, filed November 4, 2022, page 1.

The Commission finds that the claimants do not have the authority to levy fees within the meaning Government Code section 17556(d) when voter approval of the fee is required and, thus, from June 1, 2009 through December 31, 2017, there are costs mandated by the state for Sections XVIII.8-9, XIII.1, XIII.4, XIII.7, and XI.4 to submit a proposed Cooperative Watershed Program to comply with the selenium TMDL, to develop a constituent-specific source control plan to comply with the San Gabriel metals TMDL, the new mandated public education activities, and the mandate to develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies. However, once SB 231 becomes effective on January 1, 2018, and defines the exception to the voter approval requirement to include stormwater, then only the voter protest provisions of article XIII D apply. Pursuant to the court's ruling in *Paradise Irrigation District*, the claimants have fee authority sufficient to cover the costs of any state-mandated activities within the meaning of Government Code section 17556(d) when the law allows for voter protest of new or increased fees and, thus, there are no costs mandated by the state beginning January 1, 2018.

i. *The voter protest and approval requirements of article XIII D for property-related fees and SB 231*

Article XIII D, as added by Proposition 218 "imposes certain substantive and procedural restrictions on taxes, assessments, fees, and charges 'assessed by any agency upon any parcel of property or upon any person as an incident of property ownership.'"[1065] Specifically, assessments and property-related fees are subject to notice and hearing requirements, and must meet a threshold of proportionality with respect to the amount of the exaction and the purposes to which it is put. Section 4, addressing assessments, provides:

> An agency which proposes to levy an assessment shall identify all parcels which will have a special benefit conferred upon them and upon which an assessment will be imposed. The proportionate special benefit derived by each identified parcel shall be determined in relationship to the entirety of the capital cost of a public improvement, the maintenance and operation expenses of a public improvement, or the cost of the property related service being provided. No assessment shall be imposed on any parcel which exceeds the reasonable cost of the proportional special benefit conferred on that parcel. Only special benefits are assessable, and an agency shall separate the general benefits from the special benefits conferred on a parcel. Parcels within a district that are owned or used by any agency, the State of California or the United States shall not be exempt from assessment unless the agency can demonstrate by clear and convincing evidence that those publicly owned parcels in fact receive no special benefit.[1066]

Once the amount of the proposed assessment is identified, notice must be mailed to the record owner of each parcel, stating the amount chargeable to the entire district, to the parcel itself, the reason for the assessment and the basis of the calculation, and the date, time and location of the

[1065] *City of San Buenaventura v. United Water Conservation Dist.* (2017) 3 Cal.5th 1191, 1200 (citing Cal. Const., art. XIII D, § 3).

[1066] California Constitution, article XIII D, section 4(a).

public hearing on the proposed assessment. The notice must be in the form of a ballot, and at the public hearing the agency "shall consider all protests…and tabulate the ballots." If the majority of the returned ballots oppose the assessment, the agency "shall not impose" the assessment.[1067]

Similarly, section 6 provides for a proportionality requirement with respect to property-related fees and charges:

> A fee or charge shall not be extended, imposed, or increased by any agency unless it meets all of the following requirements:
>
> (1) Revenues derived from the fee or charge shall not exceed the funds required to provide the property related service.
>
> (2) Revenues derived from the fee or charge shall not be used for any purpose other than that for which the fee or charge was imposed.
>
> (3) The amount of a fee or charge imposed upon any parcel or person as an incident of property ownership shall not exceed the proportional cost of the service attributable to the parcel.
>
> (4) No fee or charge may be imposed for a service unless that service is actually used by, or immediately available to, the owner of the property in question. Fees or charges based on potential or future use of a service are not permitted. Standby charges, whether characterized as charges or assessments, shall be classified as assessments and shall not be imposed without compliance with Section 4.
>
> (5) No fee or charge may be imposed for general governmental services including, but not limited to, police, fire, ambulance or library services, where the service is available to the public at large in substantially the same manner as it is to property owners. Reliance by an agency on any parcel map, including, but not limited to, an assessor's parcel map, may be considered a significant factor in determining whether a fee or charge is imposed as an incident of property ownership for purposes of this article. In any legal action contesting the validity of a fee or charge, the burden shall be on the agency to demonstrate compliance with this article.[1068]

And, section 6 provides for notice and a public hearing similarly to section 4; but, unlike section 4, section 6 does not expressly require the notice to inform parcel owners of their right to protest the proposed fee, nor is the notice required to be in the form of a ballot to be returned.[1069]

[1067] California Constitution, article XIII D, section 4(c; d; e).

[1068] California Constitution, article XIII D, section 6(b).

[1069] Compare California Constitution, article XIII D, section 6(a)(1-2) with article XIII D, section 4(a). See also, *Great Oaks Water Co. v. Santa Clara Valley Water Dist.* (2015) 196 Cal.Rptr3d 171 (review granted) ("Had the voters wished in 1996 to require express notification to owners of their nullification rights, or to prescribe a mechanism for the exercise of those rights, they were more than capable of doing so, as they demonstrated in the parallel provisions governing assessments.").

Section 6(c) also provides that *voter approval* is required for property-related fees and *charges other than* for water, sewer, and refuse collection services.[1070] This section is discussed further below, but for charges other than for water, sewer, and refuse collection services, voter approval is not required to impose or increase fees. The fees may be adopted, but are subject only to the voter protest provisions of article XIII D.

Many of the limitations stated in Proposition 218 are not new, as most special assessment acts under prior law required notice and a public hearing, and many such acts also provided for majority protest of affected parcel owners to defeat a proposed assessment.[1071] Despite the existence of such limitations before Proposition 218, the court in *County of Placer v. Corin* held that assessments were sufficiently distinct from taxes as to be outside the scope of articles XIII A and XIII B.[1072]

After Proposition 218 came *Apartment Ass'n of Los Angeles County, Richmond*, and *Bighorn-Desert View*.[1073] In each of these cases the Court narrowly construed the procedural and substantive limitations of article XIII D. In *Apartment Ass'n*, the Court rejected a challenge under article XIII D, section 6 to the city's ordinance imposing fees on residential rental properties, finding that the fees were not "imposed by an agency upon a parcel or upon a person as *an incident of property ownership*…"[1074] The Court held that Proposition 218 imposes restrictions on taxes, assessments, fees, and charges only "when they burden landowners as *landowners*."[1075] The residential rental fee ordinance at issue "imposes a fee on its subjects by virtue of their ownership of a business-i.e., because they are landlords," and, thus, the fee was not subject to the requirements of article XIII D.[1076]

In *Richmond*, the District imposed a "capacity charge" on applicants for *new* water service connections, and thus could not prospectively identify the parcels to which the charge would apply; i.e., it could not have complied with the procedural requirements of notice and hearing under article XIII D, section 4. The Court held that the impossibility of compliance with section 4 was one reason to find that the capacity charge was not an assessment, within the meaning of

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[1070] California Constitution, article XIII D, section 6(c).

[1071] *County of Placer v. Corin* (1980) 113 Cal.App.3d 443, 454, Fn 9.

[1072] *County of Placer v. Corin* (1980) 113 Cal.App.3d 443, 454, Fn 9.

[1073] *Apartment Ass'n of Los Angeles County, Inc. v. City of Los Angeles* (2001) 24 Cal.4th 830, *Richmond v. Shasta Community Services Dist.* (2004) 32 Cal.4th 409, and *Bighorn-Desert View Water Agency v. Verjill* (2006) 39 Cal.4th 205.

[1074] California Constitution, article XIII D, sections 2(e); 3 (emphasis added); *Apartment Ass'n of Los Angeles County, Inc. v. City of Los Angeles* (2001) 24 Cal.4th 830, 841-842.

[1075] *Apartment Ass'n of Los Angeles County, Inc. v. City of Los Angeles* (2001) 24 Cal.4th 830, 842 (emphasis in original).

[1076] *Apartment Ass'n of Los Angeles County, Inc. v. City of Los Angeles* (2001) 24 Cal.4th 830, 842.

article XIII D.[1077] The Court also found that the charge was to be imposed on applicants for new service, rather than users receiving service through existing connections, and that that distinction is consistent with the overall intent of Proposition 218, to promote taxpayer consent.[1078] Accordingly, the Court concluded: "Because these fees are imposed only on the self-selected group of water service applicants, and not on real property that the District has identified or is able to identify, and because neither fee can ever become a charge on the property itself, we conclude that neither fee is subject to the restrictions that article XIII D imposes on property assessments and property-related fees."[1079]

In *Bighorn-Desert View*, the Court rejected a local initiative designed to impose a voter approval requirement on all future rate increases for water service,[1080] finding that article XIII D, section 6's express *exemption* from voter approval for sewer, water, and refuse collection "would appear to embody the electorate's intent as to when voter-approval should be required, or not required."[1081] The Court concluded:

> [U]nder section 3 of California Constitution article XIII C, local voters by initiative may reduce a public agency's water rate and other delivery charges, but…[article XIII C, section 3] does not authorize an initiative to impose a requirement of voter preapproval for future rate increases or new charges for water delivery. In other words, by exercising the initiative power voters may decrease a public water agency's fees and charges for water service, but the agency's governing board may then raise other fees or impose new fees without prior approval. Although this power-sharing arrangement has the potential for conflict, we must presume that both sides will act reasonably and in good faith, and that the political process will eventually lead to compromises that are mutually acceptable and both financially and legally sound. (See *DeVita v. County of Napa, supra,* 9 Cal.4th at pp. 792–793, 38 Cal.Rptr.2d 699, 889 P.2d 1019 ["We should not presume ... that the electorate will fail to do the legally proper thing."].) We presume local voters will give appropriate consideration and deference to a governing board's judgments about the rate structure needed to ensure a public water agency's fiscal solvency, and we assume the board, whose members are elected (see Stats.1969, ch. 1175, § 5, p. 2274, 72B West's Ann. Wat.-Appen., *supra,* ch. 112, p. 190), will give appropriate consideration and deference to the voters' expressed wishes for affordable water service. The notice and hearing requirements of subdivision (a) of section 6 of California Constitution article XIII D will facilitate communications between a public water agency's board and its customers, and the substantive restrictions on property-related

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[1077] *Richmond v. Shasta Community Services Dist.* (2004) 32 Cal.4th 409, 419.

[1078] *Richmond v. Shasta Community Services Dist.* (2004) 32 Cal.4th 409, 420.

[1079] *Richmond v. Shasta Community Services Dist.* (2004) 32 Cal.4th 409, 430.

[1080] *Bighorn-Desert View Water Agency v. Verjill* (2006) 39 Cal.4th 205, 219.

[1081] *Bighorn-Desert View Water Agency v. Verjill* (2006) 39 Cal.4th 205, 218-219.

charges in subdivision (b) of the same section should allay customers' concerns that the agency's water delivery charges are excessive.[1082]

In 2002, the Sixth District Court of Appeal in *Howard Jarvis Taxpayers' Ass'n v. City of Salinas* (2002) 98 Cal.App.4th 1351 (which the parties refer to as "*City of Salinas*") held that "sewer," for purposes of the voter approval exemption in article XIII D does *not* include storm sewers or storm drains.[1083] *City of Salinas* involved a challenge to a "storm drainage fee" imposed by the City of Salinas in order to fund its efforts "to reduce or eliminate pollutants contained in storm water, which was channeled into a drainage system separate from the sanitary and industrial waste systems," as required by the Clean Water Act.[1084] The fee was imposed on owners of developed parcels of property, and the amount "was to be calculated according to the degree to which the property contributed to runoff to the City's drainage facilities. That contribution, in turn, would be measured by the amount of the 'impervious area' on that parcel."[1085] Taxpayers challenged the imposition of the fee, arguing it was subject to voter approval under Proposition 218. The City argued the fee was exempt from the voter approval requirements because it was for "sewer" or "water" services under article XIII D, section 6(c). The court disagreed, and construed the term "sewer" narrowly, holding that "sewer" referred solely to "sanitary sewerage" (i.e., the system that carries "putrescible waste" from residences and businesses), and did not encompass a sewer system designed to carry only stormwater.[1086] It also held the term "water services" meant "the supply of water for personal, household, and commercial use, not a system or program that monitors storm water for pollutants, carries it away, and discharges it into the nearby creeks, river, and ocean."[1087]

Thus, under the *City of Salinas* case, a local agency's charges on developed parcels to fund stormwater management were property-related fees that were not covered by Proposition 218's exemption for "sewer" or "water" services. Therefore, in order for local agencies to impose new or increased stormwater fees on property owners, an election and majority vote of the affected property owners or two-thirds of the electorate in the area was first required to affirmatively approve those fees.

That holding has since been the subject of legislation. In 2017, the Legislature enacted SB 231, which amended Government Code sections 53750 and 53751 to expressly overrule the 2002 *City of Salinas* case.[1088] Government Code section 53750(k) defines the term "sewer" for purposes of article XIII D as including systems that "facilitate sewage collection, treatment, or disposition for . . . drainage purposes, including . . . drains, conduits, outlets for . . . storm waters, and any and all other works, property, or structures necessary or convenient for the collection or disposal of . .

[1082] *Bighorn-Desert View Water Agency v. Verjill* (2006) 39 Cal.4th 205, 220-221.

[1083] *Howard Jarvis Taxpayers' Ass'n v. City of Salinas* (2002) 98 Cal.App.4th 1351, 1358-1359.

[1084] *Howard Jarvis Taxpayers' Ass'n v. City of Salinas* (2002) 98 Cal.App.4th 1351, 1353.

[1085] *Howard Jarvis Taxpayers' Ass'n v. City of Salinas* (2002) 98 Cal.App.4th 1351, 1353.

[1086] *Howard Jarvis Taxpayers' Ass'n v. City of Salinas* (2002) 98 Cal.App.4th 1351, 1357-1358.

[1087] *Howard Jarvis Taxpayers' Ass'n v. City of Salinas* (2002) 98 Cal.App.4th 1351, 1358.

[1088] Government Code sections 53750; 53751 (amended, Stats. 2017, ch. 536 (SB 231)).

. storm waters." Government Code section 53751 explains why the Legislature thinks the *City of Salinas* case is wrong:

> The court in *Howard Jarvis Taxpayers Ass'n v. City of Salinas* (2002) 98 Cal.App.4th 1351 failed to follow long-standing principles of statutory construction by disregarding the plain meaning of the term "sewer." Courts have long held that statutory construction rules apply to initiative measures, including in cases that apply specifically to Proposition 218 (see *People v. Bustamante* (1997) 57 Cal.App.4th 693; *Keller v. Chowchilla Water Dist.* (2000) 80 Cal.App.4th 1006). When construing statutes, courts look first to the words of the statute, which should be given their usual, ordinary, and commonsense meaning (*People v. Mejia* (2012) 211 Cal.App.4th 586, 611). The purpose of utilizing the plain meaning of statutory language is to spare the courts the necessity of trying to divine the voters' intent by resorting to secondary or subjective indicators. The court in *Howard Jarvis Taxpayers Ass'n v. City of Salinas* (2002) 98 Cal.App.4th 1351 asserted its belief as to what most voters thought when voting for Proposition 218, but did not cite the voter pamphlet or other accepted sources for determining legislative intent. Instead, the court substituted its own judgment for the judgment of voters.[1089]

In 2019, the Third District Court of Appeal issued its decision in *Paradise Irrigation District* (a challenge to the Commission's Decision in *Water Conservation,* 10-TC-12/12-TC-01), which held, in the context of water services, that the voter protest requirements of Proposition 218 do not divest local agencies of their authority to impose fees sufficient as a matter of law pursuant to Government Code section 17556(d) and, thus, when even when the voter protest provisions apply, there are no costs mandated by the state.[1090] In *Paradise Irrigation District*, the Third District Court of Appeal observed:

> This case takes up where *Connell* left off, namely with the question of whether the passage of Proposition 218 undermined water and irrigation districts' authority to levy fees so that they are entitled to subvention for state-mandated regulations requiring water infrastructure upgrades. The Water and Irrigation Districts do not argue this court wrongly decided *Connell, supra,* 59 Cal.App.4th 382, 69 Cal.Rptr.2d, but only that the rule of decision was superseded by Proposition 218. Consequently, we proceed to examine the effect of Proposition 218 on the continuing applicability of *Connell.*[1091]

Ultimately the court preserved and followed the rule of *Connell*, finding, based in large part on a discussion of *Bighorn-Desert View*, that "Proposition 218 implemented a power-sharing arrangement that does not constitute a revocation of the Water and Irrigation Districts' fee

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[1089] Government Code section 53751(f).

[1090] *Paradise Irrigation District v. Commission on State Mandates* (2019) 33 Cal.App.5th 174, 189.

[1091] *Paradise Irrigation District v. Commission on State Mandates* (2019) 33 Cal.App.5th 174, 189.

authority."[1092] The court held, "[c]onsistent with the California Supreme Court's reasoning in *Bighorn*, we presume local voters will give appropriate consideration and deference to state mandated requirements relating to water conservation measures required by statute."[1093] In addition, the court held "[w]e also reject the Water and Irrigation Districts' claim that, as a matter of practical reality, the majority protest procedure allows water customers to defeat the Districts' authority to levy fees."[1094] However, the court said, "[w]e adhere to our holding in *Connell* that the inquiry into fee authority constitutes an issue of law rather than a question of fact."[1095] The court found that water service fees, being expressly exempt from the voter approval provisions of article XIII D, section 6(c), therefore do not require voter preapproval, as would new taxes.[1096] In addition, the court followed and relied upon *Bighorn-Desert View*'s analysis of a power-sharing relationship between local agencies and their constituents, including the presumption that "local voters will give appropriate consideration and deference to a governing board's judgments about the rate structure needed to ensure a public water agency's fiscal solvency…" and that the notice and hearing requirements of article XIII D, section 6(a) "will facilitate communications between a public water agency's board and its customers, and the substantive restrictions on property-related charges in subdivision (b) of the same section should allay customers' concerns that the agency's water delivery charges are excessive."[1097] Accordingly, the court found that that power-sharing arrangement "does not undermine the fee authority that the districts have," and the majority protest procedure of article XIII D, section 6(a) "does not divest the Water and Irrigation Districts of their authority to levy fees."[1098] The court noted that statutory protest procedures already existed, and "the possibility of a protest under article XIII D, section 6 does not eviscerate the Water and Irrigation Districts' ability to raise fees to comply with the Water Conservation Act."[1099] Thus, the court found that

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[1092] *Paradise Irrigation District v. Commission on State Mandates* (2019) 33 Cal.App.5th 174, 194-195.

[1093] *Paradise Irrigation District v. Commission on State Mandates* (2019) 33 Cal.App.5th 174, 194.

[1094] *Paradise Irrigation District v. Commission on State Mandates* (2019) 33 Cal.App.5th 174, 195.

[1095] *Paradise Irrigation District v. Commission on State Mandates* (2019) 33 Cal.App.5th 174, 195.

[1096] *Paradise Irrigation District v. Commission on State Mandates* (2019) 33 Cal.App.5th 174, 192.

[1097] *Paradise Irrigation District v. Commission on State Mandates* (2019) 33 Cal.App.5th 174, 192-193.

[1098] *Paradise Irrigation District v. Commission on State Mandates* (2019) 33 Cal.App.5th 174, 194.

[1099] *Paradise Irrigation District v. Commission on State Mandates* (2019) 33 Cal.App.5th 174, 194.

Government Code section 17556(d) still applies to deny a claim when the fee authority is subject to voter protest under article XIII D, section 6(a).

The court in *Paradise Irrigation District* did not analyze whether Government Code section 17556(d) applies when voter approval is required.

Recently, however, the Third District Court of Appeal addressed the issue in *Department of Finance v. Commission on State Mandates* (Case No. C092139) and upheld the Commission's findings in *Discharge of Stormwater Runoff*, 07-TC-09, which addressed an NPDES stormwater permit issued by the San Diego Regional Water Quality Control Board.[1100] That case became final on March 2, 2023, after the California Supreme Court denied review..[1101]

In *Discharge of Stormwater Runoff*, 07-TC-09, the Commission found that the permit imposed new state-mandated activities relating to the public education program, activities and collaboration required to develop watershed and regional urban runoff management programs, and activities required to comply with the permit's program effectiveness assessment. The Commission also found that the claimants had the fee authority under their constitutional police powers (Cal. Const., art. XI, § 7), and several statutory provisions, but that authority was subject to the voter approval requirement of article XIII D, section 6. The Commission found that local agencies do not have sufficient fee authority within the meaning of Government Code section 17556(d) when voter approval of the fee is constitutionally required. The Commission based the finding on several cases, including *Howard Jarvis Taxpayers Association v. City of Salinas* (2002) 98 Cal.App.4th 1351, 1352, 1358-1359, which as stated above, held that a city's charges on developed parcels to fund stormwater management were property-related fees, and were not covered by Proposition 218's voter-approval exemption for "sewer" or "water" services. The Commission also distinguished *Connell v. Superior Court* (1997) 59 Cal.App.4th 382, finding that the voting requirement in Proposition 218 does not impose a mere practical or economic hurdle, as in *Connell*, but a legal and constitutional one. The Commission concluded that without voter approval, the local agency lacks the authority, i.e., the right or power, to levy fees sufficient to cover the costs of the state-mandated program, and approved reimbursement for those activities subject to potential offsetting revenues.

ii. *The Commission is required to presume that SB 231 is constitutional, and there is no indication in the law that SB 231 is clarifying of existing law or was intended to be applied retroactively and, thus, SB 231 applies prospectively beginning January 1, 2018.*

As indicated above, the *City of Salinas* case held that a local agency's charges on developed parcels to fund stormwater management were property-related fees that were not covered by Proposition 218's exemption for "sewer" or "water" services. Therefore, in order for local agencies to impose new or increased stormwater fees on property owners, an election and majority vote of the affected property owners or two thirds of the electorate in the area was first required to affirmatively approve those fees.

[1100] *Department of Finance v. Commission on State Mandates* (2022) 85 Cal.App.5th 535.

[1101] *Department of Finance v. Commission on State Mandates*, Case No. S277832, filed December 22, 2022, review denied March 2, 2023.

However, in 2017, the Legislature enacted SB 231, which amended Government Code sections 53750 and 53751 to overrule the 2002 *City of Salinas* case and define "sewer" to include stormwater sewers subject only to the voter protest provisions of article XIII D.[1102] SB 231 became effective January 1, 2018.

The claimants contend that SB 231 is unconstitutional, should not be applied to this Test Claim, and that all fees are therefore subject to the voter approval provisions of article XIII D.[1103]

The Department of Finance, on the other hand, asserts that SB 231, exempting stormwater fees from the voter approval requirements, applies to the full period of reimbursement:

> . . . because SB 231 was a clear overruling of the wrongly-decided *City of Salinas* case, the Commission should also find that from the beginning of the potential period of reimbursement the voter approval requirement did not apply to claimants and therefore did not impede their fee authority.[1104]

The Commission is required to presume that the statutes amended by SB 231 are constitutional. Article III, section 3.5 of the California Constitution prohibits administrative agencies, such as the Commission, from refusing to enforce a statute or from declaring a statute unconstitutional (as requested by the claimants). Article III, section 3.5 states in relevant part the following:

> An administrative agency, including an administrative agency created by the Constitution or an initiative statute, has no power:
>
> (a) To declare a statute unenforceable, or refuse to enforce a statute, on the basis of being unconstitutional unless an appellate court has made a determination that such statute is unconstitutional;
>
> (b) To declare a statute unconstitutional;
>
> [¶]

However, further analysis is required to address Finance's argument that the statutes enacted by SB 231 in 2017 to define "sewer" to include "stormwater sewers," apply to the beginning period of reimbursement, June 1, 2009. For the reasons below, the Commission finds that SB 231 operates prospectively beginning January 1, 2018.

The courts have found that a statute that merely clarifies existing law, rather than changes the law, can properly be applied to transactions predating the clarification since the clarification describes what the law has always been.[1105] Such clarifications typically occur when the Legislature promptly reacts soon after a controversy regarding interpretation arises:

[1102] Government Code sections 53750; 53751 (amended, Stats. 2017, ch. 536 (SB 231)).

[1103] Exhibit M, Claimants' Comments on the Draft Proposed Decision, filed November 4, 2022, page 33; see also pages 41-48.

[1104] Exhibit O, Finance's Comments on the Draft Proposed Decision, filed November 4, 2022, page 1.

[1105] *Western Security Bank v. Superior Court* (1997) 15 Cal.4th 232, 243.

> One such circumstance is when the Legislature promptly reacts to the emergence of a novel question of statutory interpretation: "An amendment which in effect construes and clarifies a prior statute must be accepted as the legislative declaration of the meaning of the original act, where the amendment was adopted soon after the controversy arose concerning the proper interpretation of the statute . . . [¶] If the amendment was enacted soon after controversies arose as to the interpretation of the original act, it is logical to regard the amendment as a legislative interpretation of the original act – a formal change- rebutting the presumption of substantial change.[1106]

There is no indication that the Legislature was trying to clarify an issue of interpretation regarding the word "sewer" when it enacted SB 231, 21 years after Proposition 218 was adopted and 15 years after *City of Salinas* was decided. Proposition 218 was enacted in 1996, and separately lists "sewers" and "drainage systems" in article XIII D, section 5, but only exempts sewers from the voter approval requirements in article XIII D, section 6. In 1997 and 1998, the Legislature enacted and amended the Proposition 218 Omnibus Implementation Act in Government Code sections 53750 et seq. to implement and interpret Proposition 218, but did not define "sewer" in the Act at all.[1107] Section 53750 did define "[d]rainage system" as "any system of public improvements that is intended to provide for erosion control, for landslide abatement, or for *other types of water drainage*," but did not equate sewers to mean water drainage.[1108] In 2002, the *City of Salinas* case construed the term "sewer" narrowly, holding that "sewer" referred solely to "sanitary sewerage" (i.e., the system that carries "putrescible waste" from residences and businesses), and did not encompass a sewer system designed to carry only stormwater.[1109] Statutes 2002, chapter 395 amended the Proposition 218 Omnibus Implementation Act, but "sewer" was again not defined.[1110] In 2017, SB 231 amended Government Code section 53750 to define "sewer" for the first time in subdivision (k) to include both systems for sanitary and drainage purposes, including for stormwater, as follows:

> "Sewer" includes systems, all real estate, fixtures, and personal property owned, controlled, operated, or managed in connection with or to facilitate sewage collection, treatment, or disposition for sanitary or drainage purposes, including lateral and connecting sewers, interceptors, trunk and outfall lines, sanitary sewage treatment or disposal plants or works, drains, conduits, outlets for surface or storm waters, and any and all other works, property, or structures necessary or convenient for the collection or disposal of sewage, industrial waste, or surface or storm waters. "Sewer system" shall not include a sewer system that merely collects sewage on the property of a single owner.

[1106] *Western Security Bank v. Superior Court* (1997) 15 Cal.4th 232, 243.

[1107] Government Code section 53750, as added by Statutes 1997, chapter 38.

[1108] Government Code section 53750(d), as added by Statutes 1997, chapter 38, and amended by Statutes 1998, chapter 876.

[1109] *Howard Jarvis Taxpayers' Ass'n v. City of Salinas* (2002) 98 Cal.App.4th 1351, 1357-1358.

[1110] Government Code section 53750, as amended by Statutes 2002, chapter 395.

Thus, SB 231 for the first time defines "sewer" and reverses the City of Salinas decision by clearly including stormwater drainage systems within the definition - thereby expanding the exemption from the voter approval requirement to impose or increase fees to now include property-related fees for stormwater.

However, SB 231 contains no express statement that it is clarifying existing law; it simply states an intent to overrule *City of Salinas*.[1111] "[A]lthough the Legislature may amend a statute to overrule a judicial decision, doing so *changes* the law . . . ."[1112] In addition, a new law can operate retroactively when it changes the legal consequences of past events, unless due process considerations prevent it.[1113] However, there is a strong presumption that Senate Bill 231 operates prospectively. "The presumption against statutory retroactivity has consistently been explained by reference to the unfairness of imposing new burdens on persons after the fact."[1114] "[U]nless there is an 'express retroactivity provision, a statute will not be applied retroactively unless it is very clear from extrinsic sources that the Legislature . . . must have intended a retroactive application.'"[1115] A statute that is ambiguous with respect to retroactive application is to be construed to operate prospectively.[1116] SB 231 contains no express statement that the Legislature intended the bill to apply retroactively. The strongest statement of retroactive intent is in Government Code section 53751(l), which states that the Legislature "*reaffirms and reiterates* that the definition found in Section 230.5 of the Public Utilities Code is the definition of 'sewer' or 'sewer service' that should be used in the Proposition 218 Omnibus Implementation Act." However, as indicated above, the Legislature never had before declared, affirmed, or iterated the meaning of "sewer" in the Proposition 218 Implementation Act before SB 231 was enacted. Where the statement that the Legislature reaffirmed and reiterated a prior position is erroneous, especially when the new legislation changed the law, the statement is insufficient to establish a clear expression of retroactive intent.[1117]

[1111] Government Code section 53751(f).

[1112] *McClung v. Employment Development Department* (2004) 34 Cal.4th 467, 473-474.

[1113] *Western Security Bank v. Superior Court* (1997) 15 Cal.4th 232, 243; *McHugh v. Protective Life Ins. Co.* (2021) 12 Cal.5th 213, 229.

[1114] *McClung v. Employment Development Department* (2004) 34 Cal.4th 467, 475.

[1115] *Western Security Bank v. Superior Court* (1997) 15 Cal.4th 232, 244; *Myers v. Philip Morris Companies, Inc.* (2002 28 Cal.4th 828, 841.

[1116] *I.N.S. v. St. Cyr* (2001) 533 U.S. 289, 320-321, fn. 45.

[1117] *McClung v. Employment Development Department* (2004) 34 Cal.4th 467, 475-476 [erroneous statement that an amendment merely declared existing law where it actually changed the law was insufficient to overcome the strong presumption against retroactivity].

See also, *Myers v. Philip Morris Companies, Inc.* (2002) 28 Cal.4th 828, 840 ("[T]he first rule of [statutory] construction is that legislation must be considered as addressed to the future, not to the past.... The rule has been expressed in varying degrees of strength but always of one import, that a retrospective operation will not be given to a statute which interferes with antecedent

Accordingly, the Commission finds that SB 231 operates prospectively beginning January 1, 2018.

iii. *From June 1, 2009, through December 31, 2017, when voter approval of property-related stormwater fees is required, there are costs mandated by the state for the new activities mandated by Sections XVIII.8-9, XIII.1, XIII.4, XIII.7, and XI.4 of the test claim permit. Beginning January 1, 2018, when stormwater fees are exempt from the voter approval requirement, there are no costs mandated by the state.*

As indicated above, once SB 231 becomes effective on January 1, 2018, and defines the exception to the voter approval requirement to include stormwater, then only the voter protest provisions of article XIII D apply to property-related fees for stormwater. Pursuant to the court's ruling in *Paradise Irrigation District*, the claimants have fee authority sufficient to cover the costs of any state-mandated activities within the meaning of Government Code section 17556(d) when the law allows for voter protest of new or increased fees and, thus, there are no costs mandated by the state for Sections XVIII.8-9, XIII.1, XIII.4, XIII.7, and XI.4 to submit a proposed Cooperative Watershed Program to comply with the selenium TMDL, to develop a constituent-specific source control plan to comply with the San Gabriel metals TMDL, the new mandated public education activities, and the mandate to develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies, beginning January 1, 2018.

However, until January 1, 2018, the Commission is required by law to follow the *City of Salinas* decision,[1118] which holds that stormwater does not fall within the exception to the voter approval requirement and, thus, the voters must approve any new or increased stormwater fees.[1119]

There remains an issue whether Government Code section 17556(d) applies when voter approval is required by article XIII D for any costs incurred for the new state-mandated activities to submit a proposed Cooperative Watershed Program to comply with the selenium TMDL, develop a constituent-specific source control plan to comply with the San Gabriel metals TMDL, comply with the new mandated public education activities, and the mandate to develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies, from June 1, 2009, the beginning date of the potential period of reimbursement, to December 31, 2017 (before SB 231 was enacted).

The Water Boards contend that:

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rights ... unless such be the unequivocal and inflexible import of the terms, and the manifest intention of the legislature." [internal citations and quotations omitted]); *McClung v. Employment Development Department* (2004) 34 Cal.4th 467, 469 (holding that under fundamental principles of separation of powers, the legislative branch of government may amend a statute to say something different than a court ruling, but if it does so, it changes the law and the statutes, as amended, applies prospectively).

[1118] *Fenske v. Board of Administration* (1980) 103 Cal.App.3d 590, 596.

[1119] *Howard Jarvis Taxpayers' Ass'n v. City of Salinas* (2002) 98 Cal.App.4th 1351, 1357-1358.

- A voter approval requirement does not divest claimants of legal authority to impose fees. The court's reasoning with respect to the voter protest provisions in *Paradise Irrigation District* (where the voter protest requirement were construed as a power-sharing arrangement between the districts and their customers, rather than a deprivation of fee authority) apply equally when voter approval is required.[1120]
- Even if the Commission finds that the voter approval requirements divest the claimants of their fee authority, the Commission should require the claimants to show they attempted, but failed, to establish the fees due to the voter approval provisions before reimbursement is required.

> If claimants fail to even attempt to secure voter approval, such as by never bringing a fee proposal to their voters in the first place, they cannot demonstrate that the voter approval provision was an obstacle to imposing necessary fees. Any other conclusion results in the inequitable situation in which local agencies may decline to seek voter approval for a necessary fee instead choosing to seek reimbursement from the state based on the assertion that the agency lacks fee authority sufficient as a matter of law under Government Code section 17556, subdivision (d).[1121]

The Department of Finance also urges the Commission to find that the claimants have fee authority sufficient as a matter of law to cover the costs of the mandated activities pursuant to Government Code section 17556(d).[1122]

The voter approval provisions are materially different than the voter protest provisions when it comes to a local agency's fee authority under Government Code section 17556(d). In *Paradise Irrigation District*, the water and irrigation districts had the statutory authority to impose fees for water service improvements, subject only to the voter protest provisions of article XIII D. The court held that the protest procedures did not divest the districts of their fee authority. Rather, the protest procedures created a power-sharing arrangement similar to that in *Bighorn* where presumably voters would appropriately consider the state-mandated requirements imposed on the districts.[1123] In *Bighorn*, the power-sharing arrangement existed because voters could possibly bring an initiative or referendum to reduce charges, but the validity of the fee was not contingent on the voters preapproving it.[1124] "[T]he *possibility* of a protest under article XIII D, section 6,

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[1120] Exhibit N, Water Boards' Comments on the Draft Proposed Decision, filed November 4, 2022, pages 5-7.

[1121] Exhibit N, Water Boards' Comments on the Draft Proposed Decision, filed November 4, 2022, pages 7-8.

[1122] Exhibit O, Finance's Comments on the Draft Proposed Decision, filed November 4, 2022, page 1.

[1123] *Paradise Irrigation District v. Commission on State Mandates* (2019) 33 Cal.App.5th 174, 194-195.

[1124] *Paradise Irrigation District v. Commission on State Mandates* (2019) 33 Cal.App.5th 174, 192.

does not eviscerate [the districts'] ability to raise fees to comply with the [Water] Conservation Act."[1125] Thus, under the voter protest provisions, local agencies have the authority to levy a fee unless there is a majority protest.

With the voter approval requirements, however, a local agency has no authority to establish or increase fees unless the fee is first approved by an affirmative majority vote of affected parcel owners. Thus, for property-related fees subject to voter approval, there is no power sharing arrangement like there is for fees subject only to the voters' possible protest. Rather, article XIII D limits the claimants' police power and statutory authority to impose the fee. Therefore, the claimants do not have the authority to impose fees sufficient as a matter of law to cover the costs of the new activities mandated by Sections XVIII.8-9, XIII.1, XIII.4, XIII.7, and XI.4 of the test claim permit within the meaning of article XIII B, section 6 from June 1, 2009, through December 31, 2017.

This conclusion is further supported by the purpose of article XIII B, section 6 "to preclude the state from shifting financial responsibility for carrying out governmental functions to local agencies, which are 'ill-equipped' to assume increased financial responsibilities because of the taxing and spending limitations that articles XIII A and XIII B impose."[1126] Like articles XIII A and XIII B, the voter approval requirements in article XIII D impose limits on local government authority to raise revenues to pay for new state-mandated requirements and, therefore, requires subvention within the meaning of article XIII B, section 6.

Moreover, the question whether Government Code section 17556(d) applies is a pure question of law and is not controlled by whether an agency has "tried and failed" to impose a fee, as asserted by the Water Boards. The "try and fail" suggestion was rejected by the court in *Paradise Irrigation District* as follows:

> We adhere to our holding in *Connell* that the inquiry into fee authority constitutes an issue of law rather than a question of fact. (*Ibid.*) Fee authority is a matter governed by statute rather than by factual considerations of practicality.
>
> The corollary of our continued adherence to the rule articulated in *Connell, supra,* [citation omitted] is that fee authority is not controlled by whether the Water and Irrigation Districts have "tried and failed" to levy fees. We decline to adopt the trial court's try-and-fail approach that suggests the Water and Irrigation Districts may become entitled to subvention despite their continuing statutory authority to levy fees upon showing a district's water customers with majority voting power defeated the proposed levy. As noted above, *Bighorn* instructs that we presume voters will give appropriate consideration and deference to proposals of fees by the boards of the Water and Irrigation Districts. (*Bighorn*, *supra*, [citation omitted].) Statutory authorization to levy fees – rather than practical

[1125] *Paradise Irrigation District v. Commission on State Mandates* (2019) 33 Cal.App.5th 174, 194.

[1126] *County of San Diego v. State of California* (1997) 15 Cal.4th 68, 81.

considerations – conclusively determines whether the Water and Irrigation Districts are entitled to subvention.[1127]

Accordingly, the Commission finds that the claimants do not have the authority to levy fees within the meaning Government Code section 17556(d) when voter approval of the fee is required and, thus, from June 1, 2009 through December 31, 2017, there are costs mandated by the state for the Sections XVIII.8-9, XIII.1, XIII.4, XIII.7, and XI.4 to submit a proposed Cooperative Watershed Program to comply with the selenium TMDL, to develop a constituent-specific source control plan to comply with the San Gabriel metals TMDL, the new mandated public education activities, and the mandate to develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies.

V. Conclusion

Based on the foregoing analysis, the Commission partially approves this Test Claim and finds that the following activities constitute a reimbursable state-mandated program from June 1, 2009, through December 31, 2017 only:

- Submit a proposed Cooperative Watershed Program that will fulfill applicable requirements of the selenium TMDL implementation plan within 24 months of adoption of the test claim permit, or one month after approval of the Regional Board selenium TMDLs by OAL, whichever is later. (Section XVIII.B.8.)[1128]
- Develop a "constituent-specific source control plan" for copper, lead, and zinc, including a monitoring program, to ensure compliance" with WLAs for dry and wet weather runoff, which were derived from the 2007 San Gabriel River Metals TMDL jointly developed by the Los Angeles Water Board and U.S. EPA. (Section XVIII.B.9.)[1129]
- Public education program:
    - By July 1, 2012, the one-time activity to complete a public awareness survey to determine the effectiveness of the current public and business education strategy, and to include the findings of the survey and any proposed changes to the current program in the annual report for 2011-2012. (Section XIII.1.)[1130]
    - Permittees shall administer individual or regional workshops for each of the specified sectors (manufacturing facilities; mobile service industry; commercial, distribution, and retail sales industry; residential/commercial landscape construction and service

[1127] *Paradise Irrigation District v. Commission on State Mandates* (2019) 33 Cal.App.5th 174, 195.

[1128] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 343 [Order No. R8-2009-0030, Section XVIII.B.8].

[1129] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 343 [Order No. R8-2009-0030, Section XVIII.B.9].

[1130] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 332 [Order No. R8-2009-0030, Section XIII.1].

industry; residential and commercial construction industry; and residential and community activities) by July 1, 2010 and annually thereafter. (Section XIII.4.)[1131]

- The principal permittee, in collaboration with the co-permittees, shall develop and implement a mechanism for public participation in the updating and implementation of DAMPs, WQMP guidance, and Fact Sheets for "various activities." The public shall be informed of the availability of these documents through public notices in local newspapers, County or city websites, local libraries, city halls, or courthouses. (Section XIII.7.)[1132]

- Within 18 months of adoption, develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies. (Section XI.4.)[1133]

Reimbursement for these activities is denied beginning January 1, 2018, because the claimants have fee authority sufficient as a matter of law to cover the costs of these activities pursuant to Government Code section 17556(d) and, thus, there are no costs mandated by the state.

In addition, reimbursement for these mandated activities from any source, including but not limited to, state and federal funds, any service charge, fee, or assessment authority to offset all or part of the costs of this program, and any other funds that are not the claimant's proceeds of taxes, shall be identified and deducted from any claim submitted for reimbursement.

All other sections, activities, and costs pled in the Test Claim are denied.

[1131] Exhibit A, Joint Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 332 [Order No. R8-2009-0030, Section XIII.4].

[1132] Exhibit A, Joint Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 333 [Order No. R8-2009-0030, Section XIII.7].

[1133] Exhibit A, Test Claim filed June 30, 2010, and revised December 19, 2016, and January 3, 2017, page 316-317 [Order No. R8-2009-0030, Section XI.4].

DECLARATION OF SERVICE BY EMAIL

I, the undersigned, declare as follows:

I am a resident of the County of Sacramento and I am over the age of 18 years, and not a party to the within action. My place of employment is 980 Ninth Street, Suite 300, Sacramento, California 95814.

On March 24, 2023, I served the:

- **Decision adopted March 24, 2023**

  California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2009-0030, Sections IX, X, XI, XII, XIII, and, XVIII, Adopted May 22, 2009, 09-TC-03
  Santa Ana Regional Water Quality Control Board, Resolution No. R8-2009-0030, adopted May 22, 2009
  County of Orange, Orange County Flood Control District; and the Cities of Anaheim, Brea, Buena Park, Costa Mesa, Cypress, Fountain Valley, Fullerton, Huntington Beach, Irvine, Lake Forest, Newport Beach, Placentia, Seal Beach, and Villa Park, Claimants

By making it available on the Commission's website and providing notice of how to locate it to the email addresses provided on the attached mailing list.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that this declaration was executed on March 24, 2023 at Sacramento, California.

Jill L. Magee
Commission on State Mandates
980 Ninth Street, Suite 300
Sacramento, CA 95814
(916) 323-3562

COMMISSION ON STATE MANDATES

Mailing List

Last Updated: 3/9/23

Claim Number: 09-TC-03

Matter: California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2009-0030, Sections IX, X, XI, XII, XIII, and, XVIII, Adopted May 22, 2009

Claimants: City of Anaheim
City of Brea
City of Buena Park
City of Costa Mesa
City of Cypress
City of Fountain Valley
City of Fullerton
City of Huntington Beach
City of Irvine
City of Lake Forest
City of Newport Beach
City of Placentia
City of Seal Beach
City of Villa Park
County of Orange
Orange County Flood Control District

TO ALL PARTIES, INTERESTED PARTIES, AND INTERESTED PERSONS:

Each commission mailing list is continuously updated as requests are received to include or remove any party or person on the mailing list. A current mailing list is provided with commission correspondence, and a copy of the current mailing list is available upon request at any time. Except as provided otherwise by commission rule, when a party or interested party files any written material with the commission concerning a claim, it shall simultaneously serve a copy of the written material on the parties and interested parties to the claim identified on the mailing list provided by the commission. (Cal. Code Regs., tit. 2, § 1181.3.)

Adaoha Agu, *County of San Diego Auditor & Controller Department*
Projects, Revenue and Grants Accounting, 5530 Overland Avenue, Ste. 410 , MS:O-53, San Diego, CA 92123
Phone: (858) 694-2129
Adaoha.Agu@sdcounty.ca.gov

Rebecca Andrews, Partner, *Best Best & Krieger, LLP*
655 West Broadway, 15th Floor, San Diego, CA 92101
Phone: (619) 525-1300
Rebecca.Andrews@bbklaw.com

Rachelle Anema, Division Chief, *County of Los Angeles*
Accounting Division, 500 W. Temple Street, Los Angeles, CA 90012

Phone: (213) 974-8321
RANEMA@auditor.lacounty.gov

Lili Apgar, Specialist, *State Controller's Office*
Local Reimbursements Section, 3301 C Street, Suite 740, Sacramento, CA 95816
Phone: (916) 324-0254
lapgar@sco.ca.gov

Socorro Aquino, *State Controller's Office*
Division of Audits, 3301 C Street, Suite 700, Sacramento, CA 95816
Phone: (916) 322-7522
SAquino@sco.ca.gov

Damien Arrula, City Administrator, *City of Placentia*
Claimant Contact
401 E. Chapman Avenue, Placentia, CA 92870
Phone: (714) 993-8171
darrula@placentia.org

Aaron Avery, Legislative Representative, *California Special Districts Association*
1112 I Street Bridge, Suite 200, Sacramento, CA 95814
Phone: (916) 442-7887
Aarona@csda.net

Ryan Baron, *Best Best & Krieger LLP*
18101 Von Karman Avenue, Suite 1000, Irvine, CA 92612
Phone: (949) 263-2600
ryan.baron@bbklaw.com

Gretchen Beatty, Acting City Manager, *City of Fullerton*
Claimant Contact
303 W. Commonwealth Ave, Fullerton, CA 92832
Phone: (714) 738-6310
citymanager@cityoffullerton.com

Baron Bettenhausen, Deputy City Attorney, *Jones & Mayer Law Firm*
3777 N. Harbor Blvd, Fullerton, CA 92835
Phone: (714) 446-1400
bjb@jones-mayer.com

Cindy Black, City Clerk, *City of St. Helena*
1480 Main Street, St. Helena, CA 94574
Phone: (707) 968-2742
ctzafopoulos@cityofsthelena.org

Lisa Bond, *Richards,Watson & Gershon,LLP*
355 South Grand Avenue, 40th Floor, Los Angeles, CA 90071-3101
Phone: (213) 626-8484
lbond@rwglaw.com

Katharine Bramble, Attorney, *State Water Resources Control Board*
Santa Ana Regional Water Quality Control Board, 1001 I Street, 22nd Floor, Sacramento, CA 95814
Phone: (916) 440-7769
Katharine.Bramble@waterboards.ca.gov

Guy Burdick, Consultant, *MGT Consulting*
2251 Harvard Street, Suite 134, Sacramento, CA 95815

Phone: (916) 833-7775
gburdick@mgtconsulting.com

Allan Burdick,
7525 Myrtle Vista Avenue, Sacramento, CA 95831
Phone: (916) 203-3608
allanburdick@gmail.com

David Burhenn, *Burhenn & Gest, LLP*
Claimant Representative
624 South Grand Avenue, Suite 2200, Los Angeles, CA 90017
Phone: (213) 629-8788
dburhenn@burhenngest.com

Evelyn Calderon-Yee, Bureau Chief, *State Controller's Office*
Local Government Programs and Services Division, Bureau of Payments, 3301 C Street, Suite 740, Sacramento, CA 95816
Phone: (916) 324-5919
ECalderonYee@sco.ca.gov

Teresa Calvert, Program Budget Manager, *Department of Finance*
915 L Street, 8th Floor, Sacramento, CA 95814
Phone: (916) 322-2263
Teresa.Calvert@dof.ca.gov

Oliver Chi, City Manager, *City of Irvine*
Claimant Contact
One Civic Center Plaza, Irvine, CA 92623-9575
Phone: (949) 724-6246
OChi@cityofirvine.org

Annette Chinn, *Cost Recovery Systems, Inc.*
705-2 East Bidwell Street, #294, Folsom, CA 95630
Phone: (916) 939-7901
achinncrs@aol.com

Carolyn Chu, Senior Fiscal and Policy Analyst, *Legislative Analyst's Office*
925 L Street, Suite 1000, Sacramento, CA 95814
Phone: (916) 319-8326
Carolyn.Chu@lao.ca.gov

Michael Coleman, *Coleman Advisory Services*
2217 Isle Royale Lane, Davis, CA 95616
Phone: (530) 758-3952
coleman@muni1.com

Kris Cook, Assistant Program Budget Manager, *Department of Finance*
915 L Street, 10th Floor, Sacramento, CA 95814
Phone: (916) 445-3274
Kris.Cook@dof.ca.gov

Tim Corbett, Deputy Director of Public Works, *County of Orange*
Public Works, 2301 North Glassell Street, Orange, CA 92865
Phone: (714) 955-0630
tim.corbett@ocpw.ocgov.com

Brian Cote, Senior Government Finance & Administration Analyst, *California State Association of Counties (CSAC)*

1100 K Street, Suite 101, Sacramento, CA 95814
Phone: (916) 650-8184
bcote@counties.org

Douglas Dennington, Attorney, *Rutan & Tucker, LLP*
611 Anton Blvd., Suite 1400, Costa Mesa, CA 92626
Phone: (714) 641-5100
ddennington@rutan.com

Ted Doan, Budget Analyst, *Department of Finance*
Local Government Unit, 915 L Street, Sacramento, CA 95814
Phone: (916) 445-3274
Ted.Doan@dof.ca.gov

Paul Emery, City Manager, *City of Anaheim*
Claimant Contact
200 S. Anaheim Blvd., Suite 733, Anaheim, CA 92805
Phone: (714) 765-5162
pemery@anaheim.net

Donna Ferebee, *Department of Finance*
915 L Street, Suite 1280, Sacramento, CA 95814
Phone: (916) 445-8918
donna.ferebee@dof.ca.gov

Adam Fischer, *Santa Ana Regional Water Quality Control Board*
3737 Main Street, Suite 500, Riverside, CA 92501
Phone: (951) 320-6363
afischer@waterboards.ca.gov

Tim Flanagan, Office Coordinator, *Solano County*
Register of Voters, 678 Texas Street, Suite 2600, Fairfield, CA 94533
Phone: (707) 784-3359
Elections@solanocounty.com

Jennifer Fordyce, Assistant Chief Counsel, *State Water Resources Control Board*
Office of Chief Counsel, 1001 I Street, 22nd floor, Sacramento, CA 95814
Phone: (916) 324-6682
Jennifer.Fordyce@waterboards.ca.gov

Craig Foster, Chief Operating Officer, *Building Industry Legal Defense Foundation*
Building Association of Southern California, 17744 Sky Park Circle, Suite 170, Irvine, Irvin 92614
Phone: (949) 553-9500
cfoster@biasc.org

Aaron France, City Manager, *City of Buena Park*
Claimant Contact
6650 Beach Boulevard, Second Floor, Buena Park, CA 90621
Phone: (714) 562-3550
afrance@buenapark.com

Steve Franks, City Manager, *City of Villa Park*
Claimant Contact
17855 Santiago Blvd, Villa Park, CA 92861
Phone: (714) 998-1500
sfranks@villapark.org

Bill Gallardo, City Manager, *City of Brea*
Claimant Contact
1 Civic Center Circle, Brea, CA 92821
Phone: (714) 990-7710
billga@cityofbrea.net

Howard Gest, *Burhenn & Gest,LLP*
624 South Grand Avenue, Suite 2200, Los Angeles, CA 90017
Phone: (213) 629-8787
hgest@burhenngest.com

Nicholas Ghirelli, Attorney, *Richards Watson Gershon*
355 South Grand Avenue, Suite 4000, Los Angeles, CA 90071-3101
Phone: (213) 626-8484
Nghirelli@rwglaw.com

Peter Grant, City Manager, *City of Cypress*
Claimant Contact
5275 Cypress Ave, Cypress, CA 90630
Phone: (714) 229-6700
pgrant@cypressca.org

Catherine George Hagan, Senior Staff Counsel, *State Water Resources Control Board*
c/o San Diego Regional Water Quality Control Board, 2375 Northside Drive, Suite 100, San Diego, CA 92108
Phone: (619) 521-3012
catherine.hagan@waterboards.ca.gov

Kimberly Hall-Barlow, *Jones and Mayer*
3777 N. Harbor Blvd., Fullerton, CA 92835-1366
Phone: (714) 754-5399
khb@jones-mayer.com

Heather Halsey, Executive Director, *Commission on State Mandates*
980 9th Street, Suite 300, Sacramento, CA 95814
Phone: (916) 323-3562
heather.halsey@csm.ca.gov

Andrew Hamilton, Auditor-Controller, *County of Orange*
Claimant Contact
1770 North Broadway, Santa Ana, CA 92706
Phone: (714) 834-2450
Andrew.Hamilton@ac.ocgov.com

Sunny Han, Project Manager, *City of Huntington Beach*
2000 Main Street, Huntington Beach, CA 92648
Phone: (714) 536-5907
Sunny.han@surfcity-hb.org

Aaron Harp, *City of Newport Beach*
Office of the City Attorney, 100 Civic Center Drive, Newport Beach, CA 92660
Phone: (949) 644-3131
aharp@newportbeachca.gov

Tom Hatch, City Manager, *City of Costa Mesa*
Claimant Contact
77 Fair Drive, Costa Mesa, CA 92626

Phone: (714) 754-5000
thomas.hatch@costamesaca.gov

Steven Hauerwaas, *City of Fountain Valley*
10200 Siater Avenue, Fountain Valley, CA 92708-4736
Phone: (714) 593-4441
steve.hauerwaas@fountainvalley.org

Tom Herbel, City Engineer, *City of Huntington Beach*
Public Works Department, 2000 Main Street, Huntington Beach, CA 92648
Phone: (714) 375-5077
Tom.Herbel@surfcity-hb.org

Chris Hill, Principal Program Budget Analyst, *Department of Finance*
Local Government Unit, 915 L Street, Sacramento, CA 95814
Phone: (916) 445-3274
Chris.Hill@dof.ca.gov

Michael Ho, Director of Public Works, *City of Brea*
545 Berry St., Brea, CA 92821
Phone: (714) 990-7691
michaelh@ci.brea.ca.us

Tiffany Hoang, Associate Accounting Analyst, *State Controller's Office*
Local Government Programs and Services Division, Bureau of Payments, 3301 C Street, Suite 740, Sacramento, CA 95816
Phone: (916) 323-1127
THoang@sco.ca.gov

Travis Hopkins, *City of Huntington Beach*
2000 Main Street, Huntington Beach, CA 92648
Phone: (714) 536-5437
THopkins@surfcity-hb.org

Rob Houston, City Manager, *City of Fountain Valley*
Claimant Contact
10200 Slater Avenue, Fountain Valley, CA 92708
Phone: (714) 593-4410
rob.houston@fountainvalley.org

Brian Ingallinera, Environmental Services Coordinator, *City of Brea*
1 Civic Center Circle, Brea, CA 92821
Phone: (714) 990-7672
briani@cityofbrea.net

Jill Ingram, City Manager, *City of Seal Beach*
Claimant Contact
211 8th Street, Seal Beach, CA 90740
Phone: (562) 431-2527
jingram@sealbeachca.gov

Jason Jennings, Director, *Maximus Consulting*
Financial Services, 808 Moorefield Park Drive, Suite 205, Richmond, VA 23236
Phone: (804) 323-3535
SB90@maximus.com

Angelo Joseph, Supervisor, *State Controller's Office*
Local Government Programs and Services Division, Bureau of Payments, 3301 C Street, Suite 740,

Sacramento, CA 95816
Phone: (916) 323-0706
AJoseph@sco.ca.gov

Jayne Joy, Executive Officer, *Santa Ana Regional Water Quality Control Board*
3737 Main Street, Suite 500, Riverside, CA 92501-3348
Phone: (951) 782-3284
Jayne.Joy@waterboards.ca.gov

Jeremy Jungreis, Partner, *Rutan & Tucker, LLP*
611 Anton Boulevard, 14th Floor, Costa Mesa, CA 92626
Phone: (714) 641-5100
jjungreis@rutan.com

Anita Kerezsi, *AK & Company*
2425 Golden Hill Road, Suite 106, Paso Robles, CA 93446
Phone: (805) 239-7994
akcompanysb90@gmail.com

Joanne Kessler, Fiscal Specialist, *City of Newport Beach*
Revenue Division, 100 Civic Center Drive , Newport Beach, CA 90266
Phone: (949) 644-3199
jkessler@newportbeachca.gov

Lisa Kurokawa, Bureau Chief for Audits, *State Controller's Office*
Compliance Audits Bureau, 3301 C Street, Suite 700, Sacramento, CA 95816
Phone: (916) 327-3138
lkurokawa@sco.ca.gov

Claudia Landeras-Sobaih, Principal Plan Check Engineer, *City of Irvine*
One Civic Center Plaza, PO Box 19575, Irvine, Irvin 92623
Phone: (949) 724-6330
CLanderas-Sobaih@cityofirvine.org

Michael Lauffer, Chief Counsel, *State Water Resources Control Board*
1001 I Street, 22nd Floor, Sacramento, CA 95814-2828
Phone: (916) 341-5183
michael.lauffer@waterboards.ca.gov

Kim-Anh Le, Deputy Controller, *County of San Mateo*
555 County Center, 4th Floor, Redwood City, CA 94063
Phone: (650) 599-1104
kle@smcgov.org

Alison Leary, Deputy General Counsel, *League of California Cities*
1400 K Street, Suite 400, Sacramento, CA 95814
Phone: (916) 658-8200
aleary@cacities.org

Candice Lee, *Richards,Watson & Gershon,LLP*
355 South Grand Avenue, 40th Floor, Los Angeles, CA 90071
Phone: (213) 626-8484
clee@rwglaw.com

Fernando Lemus, Principal Accountant - Auditor, *County of Los Angeles*
Auditor-Controller's Office, 500 West Temple Street, Room 603, Los Angeles, CA 90012
Phone: (213) 974-0324
flemus@auditor.lacounty.gov

Grace Leung, City Manager, *City of Newport Beach*
100 Civic Center Drive, Newport Beach, CA 92660
Phone: (949) 644-3001
gleung@newportbeachca.gov

Erika Li, Chief Deputy Director, *Department of Finance*
915 L Street, 10th Floor, Sacramento, CA 95814
Phone: (916) 445-3274
erika.li@dof.ca.gov

Shally Lin, Director of Finance - Interim, *City of Fountain Valley*
10200 Slater Avenue, Fountain Valley, CA 92708
Phone: (714) 593-4418
Shally.Lin@fountainvalley.org

Keith Linker, *City of Anaheim*
Public Works, 200 S. Anaheim Boulevard, Anaheim, CA 92805
Phone: (714) 765-5148
KLinker@anaheim.net

Thomas Lo, Water Quality Administrator, *City of Irvine*
One Civic Center Plaza, PO Box 19575, Irvine, CA 92623
Phone: (949) 724-6315
tlo@cityofirvine.org

Diego Lopez, Consultant, *Senate Budget and Fiscal Review Committee*
1020 N Street, Room 502, Sacramento, CA 95814
Phone: (916) 651-4103
Diego.Lopez@sen.ca.gov

Everett Luc, Accounting Administrator I, Specialist, *State Controller's Office*
3301 C Street, Suite 740, Sacramento, CA 95816
Phone: (916) 323-0766
ELuc@sco.ca.gov

Jill Magee, Program Analyst, *Commission on State Mandates*
980 9th Street, Suite 300, Sacramento, CA 95814
Phone: (916) 323-3562
Jill.Magee@csm.ca.gov

Corrie Manning, Assistant General Counsel, *League of California Cities*
1400 K Street, Suite 400, Sacramento, CA 95814
Phone: (916) 658-8200
cmanning@cacities.org

Darryl Mar, Manager, *State Controller's Office*
3301 C Street, Suite 740, Sacramento, CA 95816
Phone: (916) 323-0706
DMar@sco.ca.gov

Jane McPherson, Financial Services Director, *City of Oceanside*
300 North Coast Highway, Oceanside, CA 92054
Phone: (760) 435-3055
JmcPherson@oceansideca.org

Michelle Mendoza, *MAXIMUS*
17310 Red Hill Avenue, Suite 340, Irvine, CA 95403

Phone: (949) 440-0845
michellemendoza@maximus.com

Mina Mikhael, Interim Director of Public Works, *City of Buena Park*
6650 Beach Boulevard, Buena Park, CA 90621
Phone: (714) 562-3670
mmikhael@buenapark.com

Andre Monette, Partner, *Best Best & Krieger, LLP*
2000 Pennsylvania NW, Suite 5300, Washington, DC 20006
Phone: (202) 785-0600
andre.monette@bbklaw.com

Lourdes Morales, Senior Fiscal and Policy Analyst, *Legislative Analyst's Office*
925 L Street, Suite 1000, Sacramento, CA 95814
Phone: (916) 319-8320
Lourdes.Morales@LAO.CA.GOV

Marilyn Munoz, Senior Staff Counsel, *Department of Finance*
915 L Street, Sacramento, CA 95814
Phone: (916) 445-8918
Marilyn.Munoz@dof.ca.gov

Steve Myrter, Director of Public Works, *City of Seal Beach*
211 Eighth Street, Seal Beach, CA 90740
Phone: (562) 431-2527
smyrter@sealbeachca.gov

Geoffrey Neill, Senior Legislative Analyst, Revenue & Taxation, *California State Association of Counties (CSAC)*
1100 K Street, Suite 101, Sacramento, CA 95814
Phone: (916) 327-7500
gneill@counties.org

Gregory Newmark, *Meyers, Nave*
707 Wilshire Blvd., 24th Floor, Los Angeles , CA 90017
Phone: (510) 808-2000
gnewmark@meyersnave.com

Andy Nichols, *Nichols Consulting*
1857 44th Street, Sacramento, CA 95819
Phone: (916) 455-3939
andy@nichols-consulting.com

Adriana Nunez, Staff Counsel, *State Water Resources Control Board*
Los Angeles Regional Water Quality Control Board, 1001 I Street, 22nd Floor, Sacramento, CA 95814
Phone: (916) 322-3313
Adriana.Nunez@waterboards.ca.gov

Patricia Pacot, Accountant Auditor I, *County of Colusa*
Office of Auditor-Controller, 546 Jay Street, Suite #202 , Colusa, CA 95932
Phone: (530) 458-0424
ppacot@countyofcolusa.org

Leon Page, County Counsel, *333 W. Santa Ana Blvd.*
, Santa Ana, CA 92702

Phone: (714) 834-3303
leon.page@coco.ocgov.com

Arthur Palkowitz, *Law Offices of Arthur M. Palkowitz*
12807 Calle de la Siena, San Diego, CA 92130
Phone: (858) 259-1055
palkowitz@aplawoffices.onmicrosoft.com

Kirsten Pangilinan, Specialist, *State Controller's Office*
Local Reimbursements Section, 3301 C Street, Suite 740, Sacramento, CA 95816
Phone: (916) 322-2446
KPangilinan@sco.ca.gov

Alexandra Peace, *Commission on State Mandates*
980 9th Street, Suite 300, Sacramento, CA 95814
Phone: (916) 323-3562
alexandra.peace@csm.ca.gov

Johnnie Pina, Legislative Policy Analyst, *League of Cities*
1400 K Street, Suite 400, Sacramento, CA 95814
Phone: (916) 658-8214
jpina@cacities.org

Jai Prasad, *County of San Bernardino*
Office of Auditor-Controller, 222 West Hospitality Lane, 4th Floor, San Bernardino, CA 92415-0018
Phone: (909) 386-8854
jai.prasad@sbcountyatc.gov

Jonathan Quan, Associate Accountant, *County of San Diego*
Projects, Revenue, and Grants Accounting, 5530 Overland Ave, Suite 410, San Diego, CA 92123
Phone: 6198768518
Jonathan.Quan@sdcounty.ca.gov

Roberta Raper, Director of Finance, *City of West Sacramento*
1110 West Capitol Ave, West Sacramento, CA 95691
Phone: (916) 617-4509
robertar@cityofwestsacramento.org

David Rice, *State Water Resources Control Board*
1001 I Street, 22nd Floor, Sacramento, CA 95814
Phone: (916) 341-5161
david.rice@waterboards.ca.gov

Elsa Robinson, *City of Placentia*
401 East Chapman Avenue, Placentia, CA 92870
Phone: (714) 993-8148
erobinson@placentia.org

Debra Rose, City Manager, *City of Lake Forest*
Claimant Contact
100 Civic Center Drive, Lake Forest, CA 92630
Phone: (949) 461-3400
drose@lakeforestca.gov

Teresita Sablan, *State Water Resources Control Board*
Santa Ana Regional Water Quality Control Board and San Francisco Bay Regional Water Quality Control Board, 1001 I Street, 22nd Floor, Sacramento, CA 95814

Phone: (916) 341-5174
Teresita.Sablan@waterboards.ca.gov

Cindy Sconce, Director, *MGT*
Performance Solutions Group, 3600 American River Drive, Suite 150, Sacramento, CA 95864
Phone: (916) 276-8807
csconce@mgtconsulting.com

Raja Sethuraman, Director of Public Works, *City of Costa Mesa*
Department of Public Works, 77 Fair Drive, Costa Mesa, CA 92628
Phone: (714) 754-5343
raja.sethuraman@costamesaca.gov

Camille Shelton, Chief Legal Counsel, *Commission on State Mandates*
980 9th Street, Suite 300, Sacramento, CA 95814
Phone: (916) 323-3562
camille.shelton@csm.ca.gov

Carla Shelton, *Commission on State Mandates*
980 9th Street, Suite 300, Sacramento, CA 95814
Phone: (916) 323-3562
carla.shelton@csm.ca.gov

Wayne Shimabukuro, *County of San Bernardino*
Auditor/Controller-Recorder-Treasurer-Tax Collector, 222 West Hospitality Lane, 4th Floor, San Bernardino, CA 92415-0018
Phone: (909) 386-8850
wayne.shimabukuro@atc.sbcounty.gov

Jennifer Shook, *County of Orange - OC Public Works Department*
OC Watersheds Program - Stormwater External, 2301 N. Glassell Street, Orange, CA 92865
Phone: (714) 955-0671
jennifer.shook@ocpw.ocgov.com

Natalie Sidarous, Chief, *State Controller's Office*
Local Government Programs and Services Division, 3301 C Street, Suite 740, Sacramento, CA 95816
Phone: 916-445-8717
NSidarous@sco.ca.gov

Michelle Skaggs Lawrence, City Manager, *City of Oceanside*
300 North Coast Highway, Oceanside, CA 92054
Phone: (760) 435-3055
citymanager@oceansideca.org

Mike Smith, Water Quality Manager, *City of Cypress*
5275 Orange Avenue, Cypress, CA 90630
Phone: (714) 229-6752
waterquality@cypressca.org

Christina Snider, Senior Deputy County Counsel, *County of San Diego*
1600 Pacific Highway, Room 355, San Diego, CA 92101
Phone: (619) 531-6229
Christina.Snider@sdcounty.ca.gov

Eileen Sobeck, Executive Director, *State Water Resources Control Board*
1001 I Street, 22nd Floor, Sacramento, CA 95814-2828

Phone: (916) 341-5183
Eileen.Sobeck@waterboards.ca.gov

Cristina Talley, City Attorney, *City of Anaheim*
200 S. Anaheim Boulevard #356, Anaheim, CA 92805
Phone: (714) 765-5169
CTalley@anaheim.net

Jolene Tollenaar, *MGT Consulting Group*
2251 Harvard Street, Suite 134, Sacramento, CA 95815
Phone: (916) 243-8913
jolenetollenaar@gmail.com

James Treadaway, Director of Public Works, *County of Orange*
300 North Flower Street, Santa Ana, CA 92703
Phone: (714) 667-9700
James.Treadaway@ocpw.ocgov.com

Evelyn Tseng, *City of Newport Beach*
100 Civic Center Drive, Newport Beach, CA 92660
Phone: (949) 644-3127
etseng@newportbeachca.gov

Brian Uhler, Principal Fiscal & Policy Analyst, *Legislative Analyst's Office*
925 L Street, Suite 1000, Sacramento, CA 95814
Phone: (916) 319-8328
Brian.Uhler@LAO.CA.GOV

Travis Van Ligten, Associate, *Rutan & Tucker, LLP*
611 Anton Blvd, Suite 1400, Costa Mesa, CA 92626
Phone: (714) 641-5100
tvanligten@rutan.com

Antonio Velasco, Revenue Auditor, *City of Newport Beach*
100 Civic Center Drive, Newport Beach, CA 92660
Phone: (949) 644-3143
avelasco@newportbeachca.gov

Michael Vigliotta, *City of Huntington Beach*
2000 Main Street, Huntington Beach, CA 92648
Phone: (714) 536-5555
MVigliotta@surfcity-hb.org

Emel Wadhwani, Senior Staff Counsel, *State Water Resources Control Board*
Office of Chief Counsel, 1001 I Street, Sacramento, CA 95814
Phone: (916) 322-3622
emel.wadhwani@waterboards.ca.gov

Ada Waelder, Legislative Analyst, Government Finance and Administration, *California State Association of Counties (CSAC)*
1100 K Street, Suite 101, Sacramento, CA 95814
Phone: (916) 327-7500
awaelder@counties.org

David Webb, *City of Newport Beach*
100 Civic Center Drive, Newport Beach, CA 92660
Phone: (949) 644-3328
dwebb@newportbeachca.gov

Renee Wellhouse, *David Wellhouse & Associates, Inc.*
3609 Bradshaw Road, H-382, Sacramento, CA 95927
Phone: (916) 797-4883
dwa-renee@surewest.net

Tom Wheeler, Director of Public Works, *City of Lake Forest*
100 Civic Center Drive, Lake Forest, CA 92630
Phone: (949) 461-3480
twheeler@lakeforestca.gov

Colleen Winchester, Senior Deputy City Attorney, *City of San Jose*
200 East Santa Clara Street, 16th Floor, San Jose, CA 95113
Phone: (408) 535-1987
Colleen.Winchester@sanjoseca.gov

Jacqueline Wong-Hernandez, Deputy Executive Director for Legislative Affairs, *California State Association of Counties (CSAC)*
1100 K Street, Sacramento, CA 95814
Phone: (916) 650-8104
jwong-hernandez@counties.org

Julia Woo, Deputy County Counsel, *County of Orange*
333 West Santa Ana Blvd, Suite 407, Santa Ana, CA 92701
Phone: (714) 834-6046
julia.woo@coco.ocgov.com

Elisa Wynne, Staff Director, *Senate Budget & Fiscal Review Committee*
California State Senate, State Capitol Room 5019, Sacramento, CA 95814
Phone: (916) 651-4103
elisa.wynne@sen.ca.gov

Juan Zavala, Principal Engineer, *City of Fullerton*
Public Works, 303 West Commonwealth Avenue, Fullerton, CA 92832
Phone: (714) 738-6845
Juan.Zavala@cityoffullerton.com

Al Zelinka, City Manager, *City of Huntington Beach*
Claimant Contact
2000 Main St, Huntington Beach, CA 92648
Phone: (714) 375-8465
Al.Zelinka@surfcity-hb.org

Helmholst Zinzer-Watkins, Associate Governmental Program Analyst, *State Controller's Office*
Local Reimbursements Section, 3301 C Street, Suite 740, Sacramento, CA 95816
Phone: (916) 324-7876
HZinser-watkins@sco.ca.gov

C-2.0 PROGRAM MANAGEMENT

C-2.1 Introduction

The County of Orange is the Principal Permittee and the cities and the Orange County Flood Control District are Co-Permittees on the MS4 Permits (all parties are subsequently collectively referred to as Permittees). Principal Permittee and Permittee responsibilities are specified in the MS4 Permits and reiterated in the NPDES Stormwater Permit Implementation Agreement (referred to as Implementation Agreement), which additionally provides a funding mechanism for the shared costs of the Program. To enable the development and implementation of a coordinated countywide program, a management framework was created during the First Term Permit. This management framework has evolved into a four tier structure (Permittees, City Managers' Water Quality Committee, Technical Advisory Committee (TAC) and Program Committees/Task Forces/Ad Hoc Groups) (see **Section C-2.3**).

C-2.2 Permittee Responsibilities

C-2.2.1 NPDES Permit Responsibilities

Principal Permittee

The role of the Principal Permittee is the same as the other Permittees with the addition of certain overall countywide program management responsibilities. These responsibilities include the following:

- Initiating, developing and coordinating any area-wide programs and activities necessary to comply with the Fourth Term Permits;
- Developing and implementing mechanisms, performance standards, etc., to promote uniform and consistent implementation of BMPs among the Permittees;
- Monitoring the implementation of the plans and programs required by the permits and determining their effectiveness in protecting beneficial uses;
- Providing administrative and technical support and informing the Permittees of the progress of other pertinent municipal programs, pilot projects, research studies, etc.;
- Representing the Program before appropriate agencies;
- Developing and executing inter-governmental agreements necessary for program implementation;
- Conducting chemical, biological and toxicological water quality monitoring;
- Conducting countywide public education and outreach;
- Participating in watershed management programs and regional and/or statewide monitoring;
- Preparing and submitting reports, plans and programs as required by the permits including the Unified Annual Progress/PEA Report;
- Developing budgets and fiscal analyses; and
- Coordinating the program with affected local government agencies.

The Principal Permittee has no regulatory authority over the Permittees.

Permittees

Each Permittee is responsible for ensuring permit compliance within its jurisdiction. The main responsibilities of each Permittee include:

- Reviewing, approving and commenting on budgets, plans, strategies, management programs and monitoring programs developed by the Principal Permittee or any sub-committee;
- Implementing the various stormwater management programs as outlined in the permit and the DAMP within its jurisdiction;
- Establishing and maintaining adequate legal authority;
- Coordinating among internal departments and agencies, as appropriate, to facilitate the implementation of the Fourth Term Permits and the DAMP;
- Responding to/or arranging for response to emergency situations, such as accidental spills, leaks, illegal discharges/illicit connections, etc., to prevent or reduce the discharge of pollutants to the storm drain systems and receiving waters within its jurisdiction;
- Conducting inspections of and performing maintenance on the infrastructure within its jurisdiction;
- Taking appropriate enforcement actions as necessary within its jurisdictions to ensure compliance with applicable ordinances;
- Conducting and coordinating any surveys and source identification studies necessary to identify pollutant sources and drainage areas;
- Participating in the General Permittee Committee meetings and any sub-committee meetings as necessary; and
- Preparing and submitting all reports or requests for information to the Principal Permittee in a timely fashion.

C-2.3 Accomplishments

C-2.3.1 Agreement for Program Implementation

The Implementation Agreement establishes the responsibilities of the Permittees with respect to compliance with the Permits. The Implementation Agreement also establishes a funding mechanism for the Shared Costs[1] of the Orange County Stormwater Program based on each municipality's area and resident population and includes a provision that allows newly incorporated cities to become additional parties to the Implementation Agreement.

The Implementation Agreement was originally entered into in December of 1990 and was amended in October of 1993 to include two additional Permittees (Laguna Hills and Lake Forest) and formally establish the TAC. The Implementation Agreement was amended again and fully restated, effective June 25, 2002, to include three additional Permittees

[1] See Section C-2.5.1 for explanation of *Shared Costs*.

(Aliso Viejo, Laguna Woods and Rancho Santa Margarita) and to incorporate modifications to the management structure and cost-sharing formulas.

C-2.3.2 Management Framework

The USEPA defines a management framework as "*a lasting process for partners working together. It's a support structure making it easier to coordinate efforts – a structure made of agreed upon standard operating procedures, timelines and forums for communicating with each other*" (USEPA, 2002[2]). A four tier management framework was established in early 2002 to direct the development of the Orange County Stormwater Program (**Figure C-2.1**). This framework was retained in the 2014-15 reporting period. It currently comprises:

City Manager's Water Quality Committee

The City Manager's Water Quality Committee provides budget and overall program review and governance direction. The Committee is comprised of several City Managers and is supported by County staff.

City Engineer's Technical Advisory Committee and Technical Advisory Committee/Planning Advisory Committee (TAC/PAC)

The TAC serves in a program advisory role and provides policy direction for the program budget, development and implementation. It is comprised of one Public Works Director/City Engineer, or selected representative, from each of the County Supervisor Districts and a representative from the County of Orange. The PAC is comprised of one Planning Director, or selected representative, from each of the County Supervisor Districts and a representative from the County of Orange. The TAC/PAC is convened to address matters related to land development regulation. The PAC does not meet separately from the TAC.

General Permittee Committee

The General Permittee Committee is the principal forum for disseminating information for program coordinators. Participation in the General Permittee Committee is a specific requirement of the Santa Ana Regional Board Fourth Term Permit (see **Figure C-2.2**).

Task Forces/ Sub-Committees

The Task Forces/ Sub-Committees which were active in 2014-15, are:

- Trash and Debris Task Force

  Purpose: To foster and sustain partnership approaches for dealing with trash and debris in stormwater and urban runoff with the goal of ensuring that such materials do not become the basis for a formal designation of coastal beneficial

[2] http://www.epa.gov/watertrain/watershedmgt/principle2b.html

use impairment. The Task Force will take a lead role in implementing the Trash Amendments approved by the State Water Board.

- Legal/Regulatory Authority Task Force

  Purpose: To review the legal authorities that the Permittees have in complying with the permit requirements and recommend changes as needed and to track stormwater related rule-making and litigation that may affect the Program.

- LIP/PEA Sub-Committee

  Purpose: To provide oversight and technical direction to the management of core DAMP/LIP programs, including, Municipal Activities; New Development/Significant Redevelopment; Construction; Existing Development; and Illegal Discharges/Illicit Connections.

- Public Education Sub-Committee

  Purpose: To help provide regional consistency and oversight for the stormwater public education program efforts.

- Inspection Sub-Committee

  Purpose: To provide a forum for the coordination, investigation, enforcement and training aspects of the existing development inspection program and ID/IC programs.

- Water Quality Monitoring and Science Sub-Committee

  Purpose: To provide oversight and technical input for the revision of the water quality monitoring programs, ongoing water quality data evaluation, and special water quality investigations and BMP effectiveness studies.

Other Regional Committees/Work Groups

Many of the Permittees additionally participate in various watershed management advisory groups. These groups include: the Newport Bay Watershed Executive and Management Committees, the Coastal Coalition, and the South Orange County Management Area Executive, Management and Integrated Regional Water Management Plan (IRWMP) stakeholder meetings. These watershed groups focus their activities and discussions on broader watershed issues of concern, such as habitat restoration, integration with water supply and flood control in addition to water quality issues resulting from TMDL requirements and special directives.

C-2.3.3 Management Framework - Program Implementation

In addition to the countywide and watershed management framework for program development, the Permittees formally identify the departments with responsibility for implementation of each program element within their jurisdictions. These organizational charts are presented in the LIPs.

C-2.3.4 Orange County Stormwater Program Representation

The Principal Permittee represents the Permittees at the California Stormwater Quality Association (CASQA), Stormwater Monitoring Coalition (SMC), Southern California Coastal Water Research Program (SCCWRP) and other advisory stormwater forums. The Principal Permittee also participates in Orange County Transportation Authority's (OCTA) Measure M2 Environmental Clean-up Advisory Committee (ECAC).

CASQA

Since 1989, CASQA has assisted the State of California, USEPA, municipalities, special districts and businesses in developing and implementing effective water quality management programs in California in support of the stormwater mandates of the federal Clean Water Act. The Principal Permittee has been active on the Board of Directors, Executive, Program Committee, Conference Planning and Policy and Permitting Sub-Committee.

SMC

The SMC was formed in 2001 by cooperative agreement of the Phase I municipal stormwater NPDES principal permittees, the NPDES regulatory agencies in southern California, the State Water Board, Caltrans and SCCWRP. The goal of the SMC is to develop the technical information necessary to better understand stormwater mechanisms and impacts, and then develop the tools that will effectively and efficiently improve stormwater decision-making. The SMC continued to make progress implementing its Research Agenda (see **Section C-3.2.3** for details) in 2015-16. It was chaired by the Principal Permittee until the end of the 2015-16 reporting period.

SCCWRP

SCCWRP is a research institute focusing on the coastal ecosystems of Southern California from watersheds to the ocean. It was formed in 1969 to enhance the scientific understanding of linkages among human activities, natural events, and the health of the Southern California coastal environment; to communicate this understanding to decision makers and other stakeholders; and to suggest strategies for protecting the coastal environment. In 2015-16 the Principal Permittee participated as a Commissioner on SCCWRP's governing board and as the Program's representative on the Commission Technical Advisory Group (CTAG).

CTAG acts as the primary link between the SCCWRP Commission and member agencies and SCCWRP staff. It fulfills this purpose by providing guidance on the SCCWRP research plan, transferring scientific and technical information to member agencies, and collaborating closely with SCCWRP staff on special projects that require a high level of integration of managerial, technical, and scientific issues. There has been a CTAG focus on broadly updating the SCCWRP research plan with many projects of value to stormwater interests.

OCTA Environmental Cleanup Program

OCTA's Environmental Cleanup Program, provides for the allocation of approximately $300 million to improve overall water quality in Orange County from transportation-generated pollution. The Environmental Cleanup Program was approved under Orange County Measure M2, the half-cent sales tax for transportation improvements approved by Orange County voters in 2006.

Program funds are allocated on a countywide competitive basis to assist jurisdictions with control of transportation-generated pollution. Eligible applicants include city and county agencies. Funds are awarded to the highest priority projects that improve water quality in streams, harbors, and other waterways that have a nexus to transportation generated pollution. The Environmental Cleanup Allocation Committee (ECAC) is responsible for developing the program and making funding recommendations to the Board and was co-chaired by the Principal Permittee during the reporting period.

The Tier 1 Grant Program is designed to mitigate the more visible form of pollutants, such as litter and debris that collects on roadways and in storm drains prior to being deposited in waterways and the ocean. Tier 1 consists of funding for equipment purchases and upgrades to existing catch basins and related BMPs such as screens, filters, inserts and other street-scale low-flow diversion projects. A total of up to $19.5 million is available for the Tier 1 program over a seven-year window from 2011-12 through 2017-18. To date, four rounds of Tier 1 funding have been allocated. Approximately $11.3 million was awarded to 103 projects from 33 cities and Orange County.

The Tier 2 Grant Program consists of funding regional, potentially multijurisdictional, capital-intensive projects. Examples include constructed wetlands, detention/infiltration basins and bioswales, which mitigate pollutants including litter and debris, but also heavy metals, organic chemicals, sediment and nutrients. The Tier 2 program is funded with bond financing revenues with up to $38 million allocated through 2015-16. Beyond 2015-16, funding will be based on a pay-as-you-go basis. To date, two rounds of Tier 2 funding have been allocated. Approximately $28 million has been awarded to 22 projects from 12 cities and two County agencies.

The Principal Permittee worked closely with OCTA on the development of a Structural BMP Prioritization and Analysis Tool (SBPAT) to inform future decisions regarding the disbursement of Tier 2 project funds. SBPAT is a GIS-based decision support tool that was used in the reporting period to prioritize and select the structural BMP retrofit project

proposals to be provided with grant funding. The Principal Permittee is also represented on the ECAC.

Nitrogen and Selenium Management Program

The Nitrogen and Selenium Management Program (NSMP) was created in 2005 in response to a general NPDES permit (Order No. R8-2004-0021) issued for the Newport Bay watershed to establish waste discharge requirements for certain groundwater-related discharges and to regulate de minimus discharges. The NSMP is a collaborative effort of 21 stakeholders, initially including various State, county, and local agencies, water districts, and private entities with the goal of developing management strategies and treatment technologies for groundwater dewatering discharges of both selenium and nitrogen for the watershed. The County of Orange is the Chair of the NSMP. During the reporting period documentation for a Selenium TMDL was provided to the Santa Ana Regional Board, continued monitoring of fish and bird egg tissue was performed throughout the watershed; and novel selenium treatment technologies were evaluated. Ongoing projects to divert flows in Peters Canyon Channel and Santa Ana Delhi Channel to the sanitary sewer also progressed.(see **Section C-12.0** for details).

C-2.4 Assessment

C-2.4.1 Implementation Agreement

Since the inception of the Program, the Implementation Agreement has been amended to provide for the incorporation of new cities and to formally recognize the role of the TAC. The structure of the Agreement has accommodated the expansion of the program and the significant escalation of shared costs with the adoption of the Third Term Permits and subsequent Fourth Term Permits. It has also served as a model for cost sharing collaboration related to the Newport Bay TMDL compliance effort (including the related Nitrogen Selenium Management Program), Regional Harbor Monitoring Program, Aliso Creek 13255 Directive and south Orange County Bacteria TMDLs.

C-2.4.2 Management Framework

The management framework is reviewed annually to ensure it meets program needs. All of the committees, sub-committees and task forces have been effective in bringing forward initiatives to meet the requirements of the Fourth Term Permits and to address program needs under a consensus building process. However, Fourth Term Permit requirements for the inclusion of LID and hydromodification approaches into local planning approval processes have necessitated changes to the framework. The management framework was first revised in mid-2009 to enable a TAC/PAC to provide policy direction and oversight in matters related to land development and land regulation. During the reporting period, the joint PAC/TAC did not meet. The members of the TAC at the end of the reporting period were:

1st District – William Galvez; 2nd District – Temo Galvez, City of Fountain Valley; 3rd District – Frank Sun, City of Orange; 4th District – Keith Linker, City of Anaheim; 5th District – Brad Fowler, City of Dana Point, and OC Public Works –Khalid Bazmi

C-2.5 Fiscal Analysis

This Section presents a summary of the costs incurred by the Permittees in developing, implementing and maintaining programs in order to comply with the Fourth Term Permits. It also includes information on the funding sources used by each Permittee. The analysis distinguishes between *shared costs* and *individual costs*.

C-2.5.1 Shared Costs

Shared Costs comprise those that fund activities performed by the Principal Permittee under both the Program's Implementation Agreement and separate cost share agreements related to TMDL compliance. The program management activities handled by the Principal Permittee are discussed in **Section C-2.2.1**. Each municipality's contribution to shared costs is determined by a formula established in the Implementation Agreement, based on the population and land area of each jurisdiction.

The shared cost budget for the program for 2015-16, as approved by the Permittees, was $6,677,811.38. The actual shared cost expenditures for the Program for 2015-16 are provisionally $4,737,620. In addition, TMDL cost-share agreement expenditures for 2015-16 include: $499,805 (Sediment TMDL), $635,365 (Nutrients, Fecal Coliform and Toxics TMDLs), $87,109(Coyote Creek Metals TMDL), $353,093 (Aliso Creek Watershed Agreement), and $270,462 (San Juan Creek Watershed Agreement).

The shared cost budget for the program for 2016-17 is $6,289,969.

C-2.5.2 Individual Costs

Individual costs are those incurred by each Permittee arising from its jurisdictional program implementation as documented in the LIPs and comprise capital and operation and maintenance costs:

- Capital Costs – refers to expenditures for land, large equipment, and structures (see **Table C-2.1**); and
- Operations and Maintenance Costs - refer to normal costs of operation including the cost of keeping equipment and facilities in working order (see **Table C-2.2**).

The sum of the capital and operation and maintenance costs is the total cost that each Permittee has incurred individually to meet the requirements of the Fourth Term Permits. The guidance - *Fiscal Analysis Guidance Manual: Orange County Stormwater Program* – provides the Permittees with an accurate and auditable basis for compiling and reporting the fiscal impact of the stormwater mandate.

In reviewing **Table C-2.1** and **Table C-2.2**, it should be noted that purchases of small equipment, with a life of less than 5 years and a value lower than $5,000, are now included in the operations and maintenance costs. Also, "Capital Costs" now covers

longer-life equipment and fixed facilities/BMPs and includes a category that captures an allowance for the cost of construction BMPs for projects implemented as a part of a municipal capital program.

In 2015-16, the total cost of the activities undertaken by the Permittees implementing the DAMP programs within their jurisdictions are reported to be:

- Total Individual Permittee Costs $108,000,558

This total compares to $103, 369,884 in 2014-15, $93,105,122 in 2013-14, $97,336,120 in 2012-13, and $96,529,224 in 2011-12 (see **Figure C-2.3**). A historical review of costs is presented in **Figure C-2.4.**

In 2016-17, the total cost of the activities to be undertaken by the Permittees implementing the DAMP programs within their jurisdictions (capital costs + operations and maintenance costs) is estimated to be:

- Total Individual Permittee Costs $112,412,235

C-2.5.3 Funding Sources

The funding sources used by the Permittees include: General Fund, Utility Tax, Separate Utility, Gas Tax, and Special District Fund, Others (Sanitation Fee, Fleet Maintenance, Community Services District, Water Fund, Sewer & Storm Drain Fee, Grants, and Used Oil Recycling Grants) (see **Figure C-2.5, *2015-16 Funding Sources***, and **Figure C-2.6, *2016-17 Projected Funding Sources***). The contributions of volunteer groups are not included in this assessment.

Table C-2.1: Total Capital Costs

LIP Program Elements	FY 2008-09	FY 2009-10	FY 2010-11*	FY 2011-12**	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	Projected Costs FY 2016-17
Public Projects - BMPs	$4,354,703.19	$3,506,068.64	$5,230,961.74	$8,851,782.00	$7,485,145.83	$14,174,068.46	$24,539,272.85	$23,791,525.85	$25,298,041.00
Construction BMPs for Public Construction Projects	$6,953,596.35	$2,854,099.50	$2,087,113.00	$7,948,846.85	$3,119,362.97	$4,821,554.63	$4,854,795.00	$4,854,795.00	$4,214,741.33
Other Capital Projects / Major Equipment Purchases	$3,955,792.28	$1,287,921.24	$2,155,736.20	$1,169,557.50	$1,414,979.75	$3,714,710.71	$2,490,310.81	$2,490,310.81	$4,640,205.60
TOTALS	**$15,264,091.82**	**$7,713,089.38**	**$9,473,810.94**	**$17,970,186.35**	**$12,019,488.55**	**$22,710,333.80**	**$31,884,378.66**	**$31,136,631.66**	**$34,152,987.93**

Note: Some LIP Program Elements are tracked differently by each City and have been combined for Unified Reporting. Please see individual City PEA's for a discussion of their costs and projected costs.

*** Totals do not include the Cities of Los Alamitos and Placentia.**

**** Totals do not include the Cities of Los Alamitos, Placentia and San Juan Capistrano.**

Table C-2.2: Total Operations and Maintenance Costs

LIP Program Elements	FY 2008-09	FY 2009-10	FY 2010-11*	FY 2011-12**	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	Projected Costs FY 2016-17
Supportive of Program Administration (LIP Section 2.0)	$12,814,752.16	$8,572,341.52	$8,844,170.80	$8,366,777.01	$8,618,212.50	$8,950,343.96	$9,638,421.24	$9,161,630.54	$11,320,209.68
Municipal Activities (LIP Section 5.0) Trash & Debris Control (formerly "Litter Control")	$4,079,461.97	$11,280,896.09	$19,307,869.45	$18,113,885.70	$8,018,846.23	$10,539,631.40	$4,793,856.09	$5,483,184.84	$5,425,290.15
Municipal Activities (LIP Section 5.0) Drainage Facility Maintenance	$8,703,537.62	$8,587,571.04	$8,452,225.64	$8,410,688.71	$7,553,893.68	$8,087,358.85	$18,355,021.70	$18,240,135.48	$17,021,307.74
Municipal Activities (LIP Section 5.0) Street Sweeping	$20,347,451.48	$16,231,064.45	$16,104,993.58	$16,393,512.19	$16,832,131.66	$17,758,445.65	$12,497,898.75	$17,215,153.57	$17,474,621.16
Municipal Activities (LIP Section 5.0) Environmental Performance (BMP Implementation)	$9,705,021.20	$1,761,158.32	$1,955,555.52	$7,094,551.81	$2,569,511.81	$2,502,982.88	$3,453,632.10	$3,403,592.81	$3,676,380.36
Municipal Activities (LIP Section 5.0) Pesticide & Fertilizer Management	$4,314,286.97	$3,076,024.45	$1,977,922.36	$2,294,513.91	$2,571,450.03	$3,014,220.64	$2,603,196.09	$2,840,923.37	$2,849,793.00
Public Information (LIP Section 6.0) Nonpoint Source Pollution Awareness	$753,371.20	$683,714.77	$747,256.37	$653,782.22	$716,722.66	$786,806.62	$997,974.98	$1,130,564.08	$1,084,984.20
Public Information (LIP Section 6.0) Household Hazardous Waste Collection	$668,394.19	$569,583.00	$442,537.57	$516,974.28	$451,768.42	$446,832.93	$549,948.80	$564,411.62	$542,294.00
Requiring New Development BMPs (Supportive of Planning, etc) (LIP Section 7.0)	$1,366,271.37	$1,229,331.85	$1,277,025.53	$1,139,984.62	$1,192,309.81	$1,301,780.46	$1,682,909.37	$1,637,096.38	$1,728,899.74
Requiring Construction BMPs (Supportive of Plan Check & Inspection) (LIP Section 8.0)	$2,074,518.38	$2,347,873.76	$2,349,710.04	$2,462,964.92	$2,637,047.37	$2,629,382.82	$2,198,289.58	$2,204,473.97	$2,330,345.72
Existing Development (LIP Section 9.0) Industrial/Comm./HOA Inspections	$1,866,662.71	$1,376,602.39	$1,489,298.68	$1,699,196.65	$1,659,217.76	$1,851,991.80	$2,059,668.76	$1,751,525.34	$1,966,308.23
Illicit Connections/Discharge Ident. & Elimination (LIP Section10.0) Investigations	$1,912,747.24	$3,153,492.27	$1,686,845.31	$1,461,270.37	$1,708,807.64	$1,555,927.98	$1,767,190.19	$1,722,354.52	$1,819,447.47
Agency Contribution to Regional Program	$6,192,633.07	$5,234,669.61	$5,346,833.92	$5,168,244.17	$4,988,801.71	$4,978,831.67	$5,124,152.05	$5,725,253.81	$5,701,561.11
Other - Household Hazardous Waste	$5,454,000.00	$4,425,327.00	$4,158,636.00	$4,387,309.00	$4,957,917.00	$5,721,448.00	$5,613,232.00	$5,598,227.94	$5,190,105.00
Other	$0.00	$1,952,982.30	$275,881.53	$395,381.70	$275,780.79	$268,802.44	$150,113.95	$185,397.84	$127,700.00
TOTALS	**$80,253,109.56**	**$70,923,767.82**	**$74,416,762.28**	**$78,559,037.25**	**$64,752,419.05**	**$70,394,788.10**	**$71,485,505.65**	**$76,863,926.11**	**$78,259,247.56**

Note: Some LIP Program Elements are tracked differently by each City and have been combined for Unified Reporting. Please see individual City PEA's for a discussion of their costs and projected costs.

*** Totals do not include the Cities of Los Alamitos and Placentia.**
**** Totals do not include the Cities of Los Alamitos, Placentia and San Juan Capistrano.**

Figure C-2.1: Orange County Municipal NPDES Management Framework (2015-16 Reporting Period)

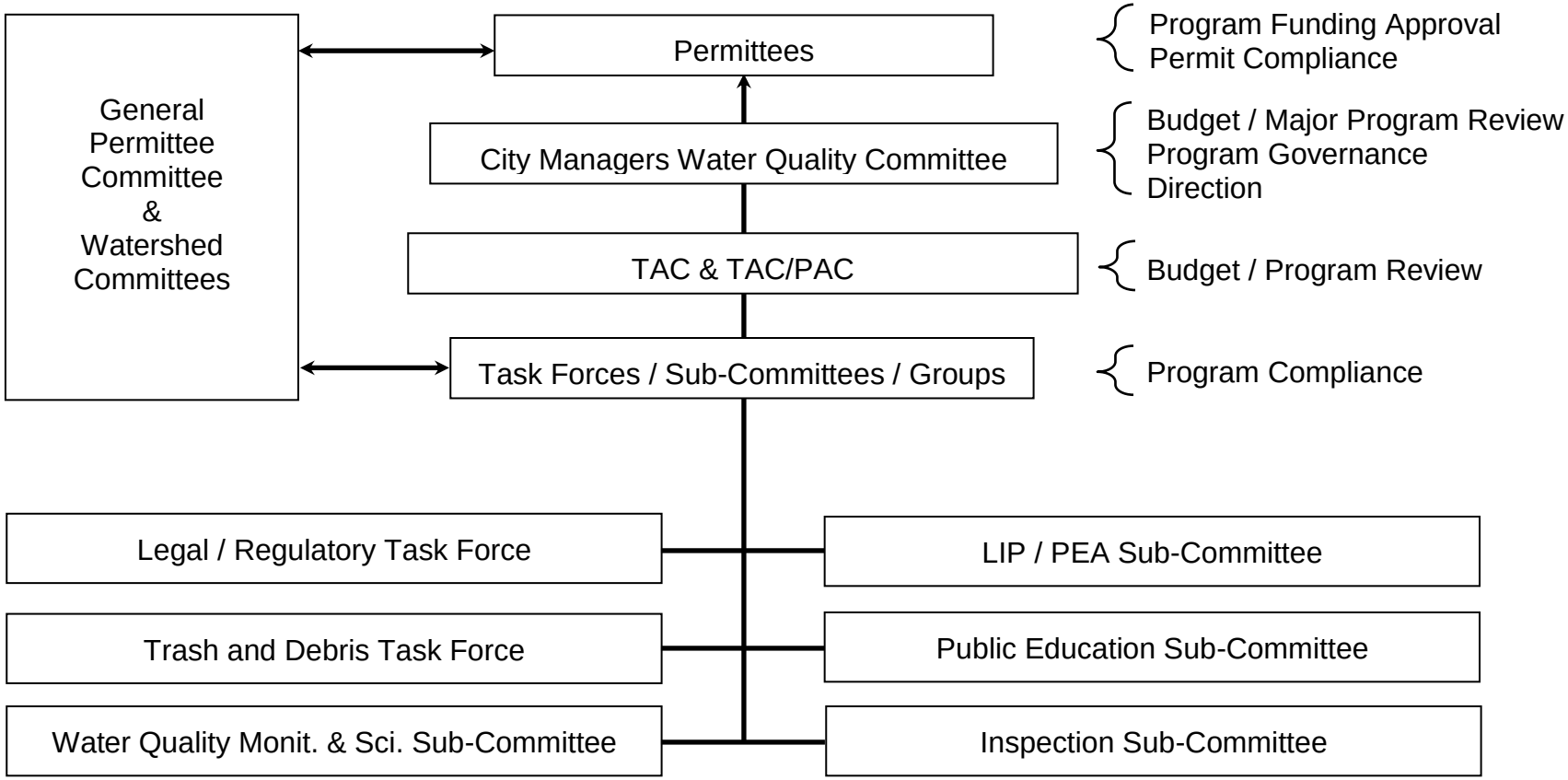


Figure C- 2.2: 2015-16 General Permittee Meeting Attendance (*Only Santa Ana Region Permittees shown)*

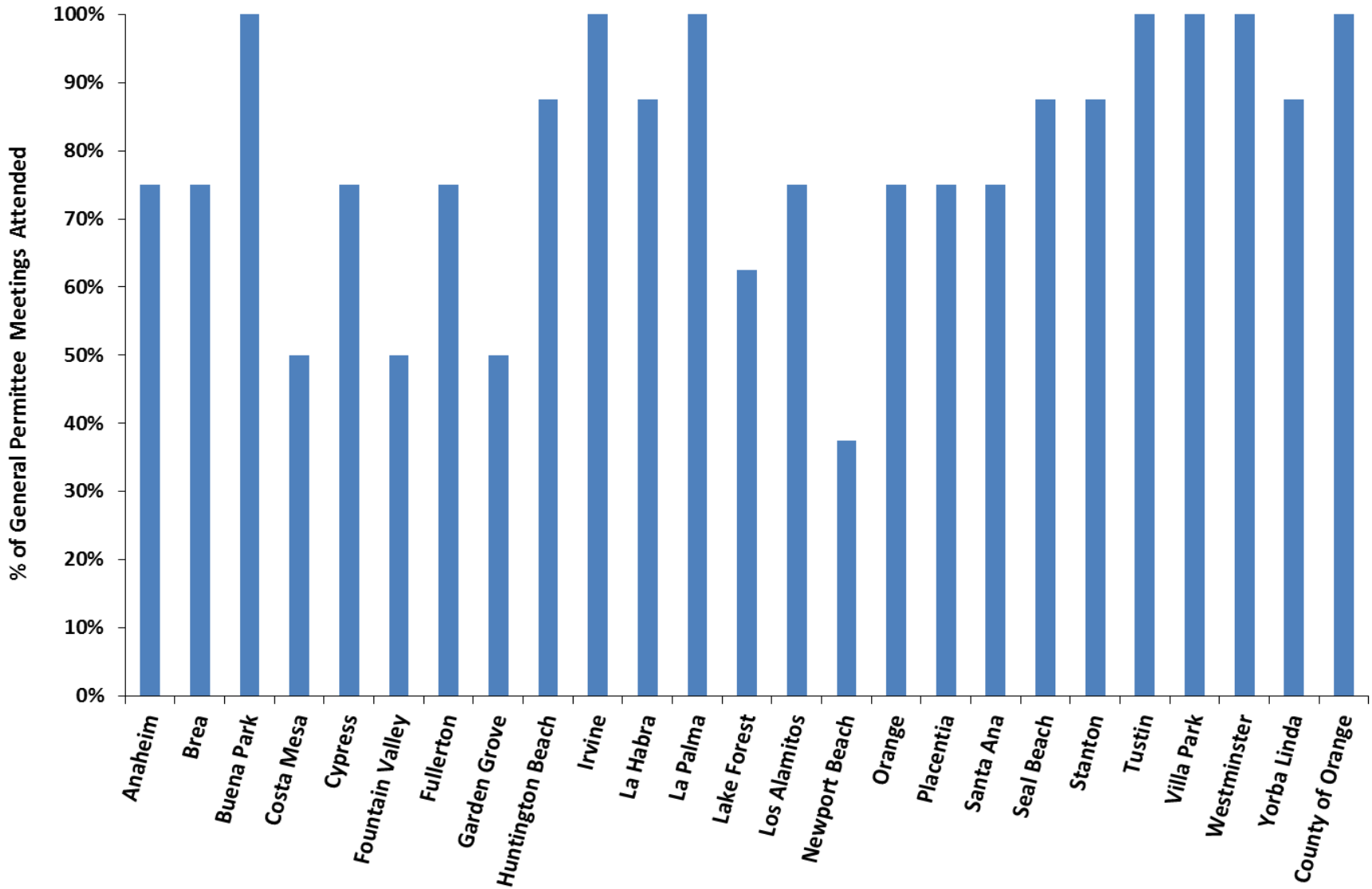


Figure C-2.3: Total Individual Permittee Costs

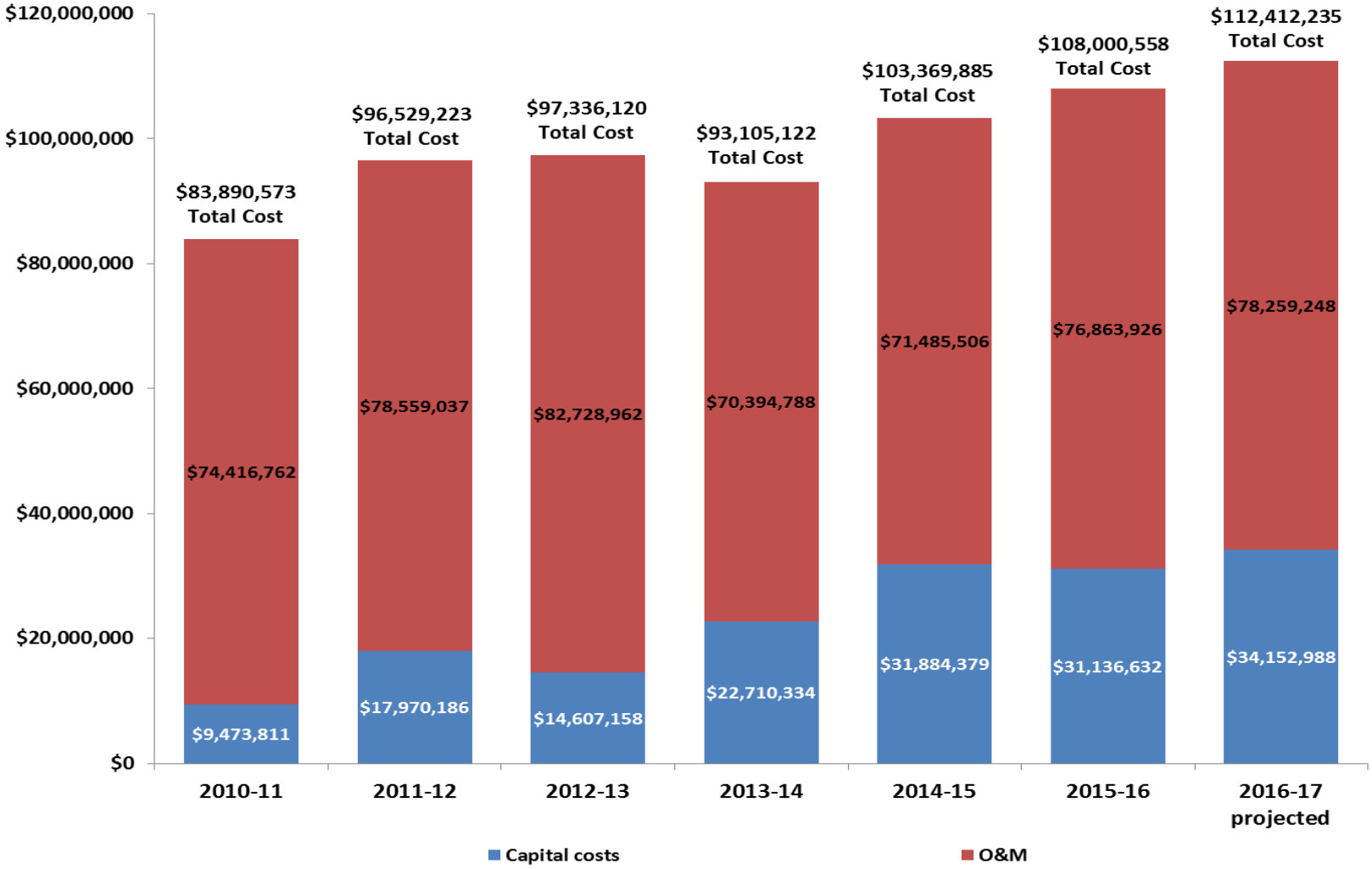


Figure C-2.4: Historical Review of Total Individual Permittee Costs

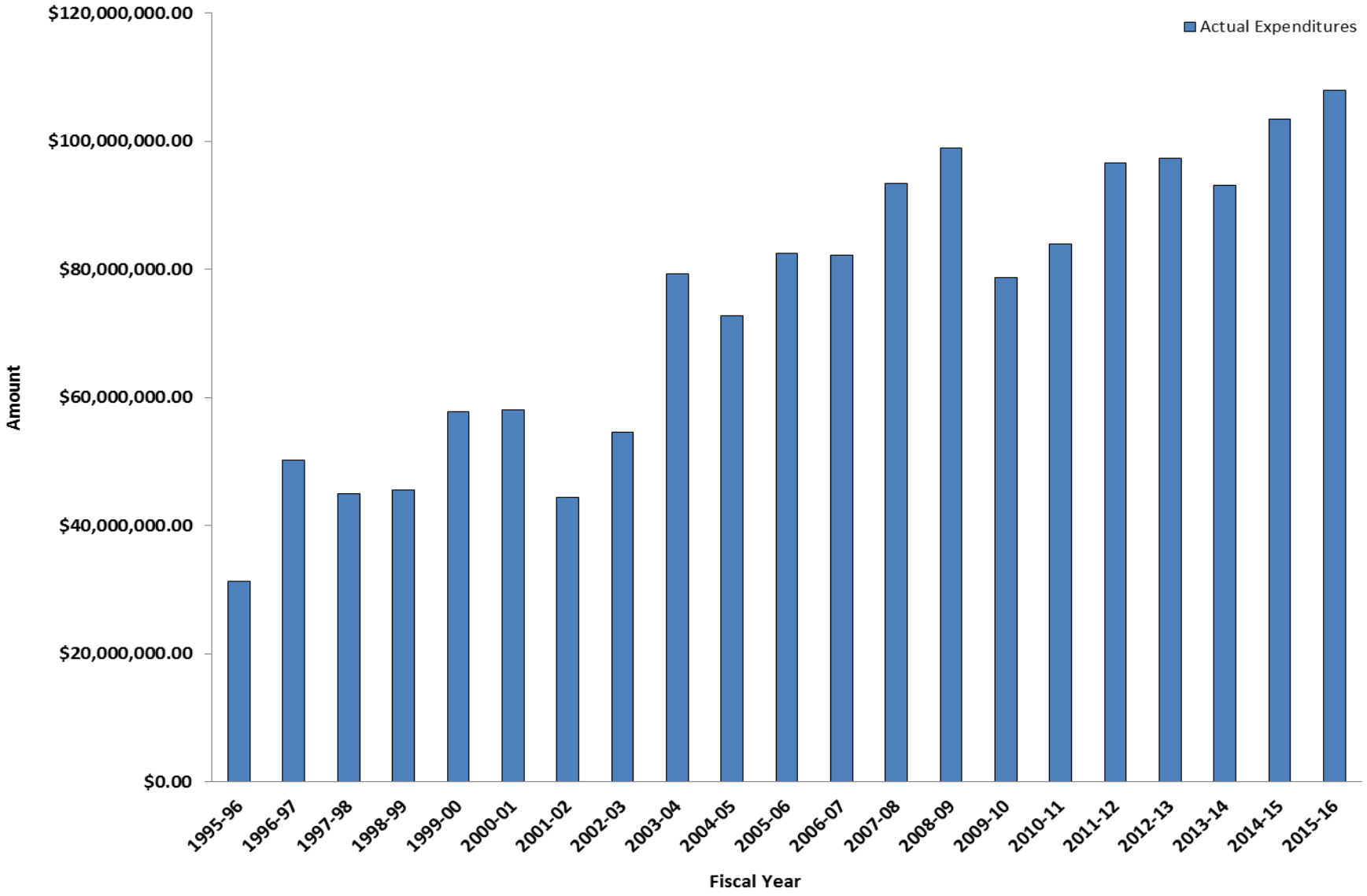


Figure C-2.5: 2015-16 Actual Funding Sources

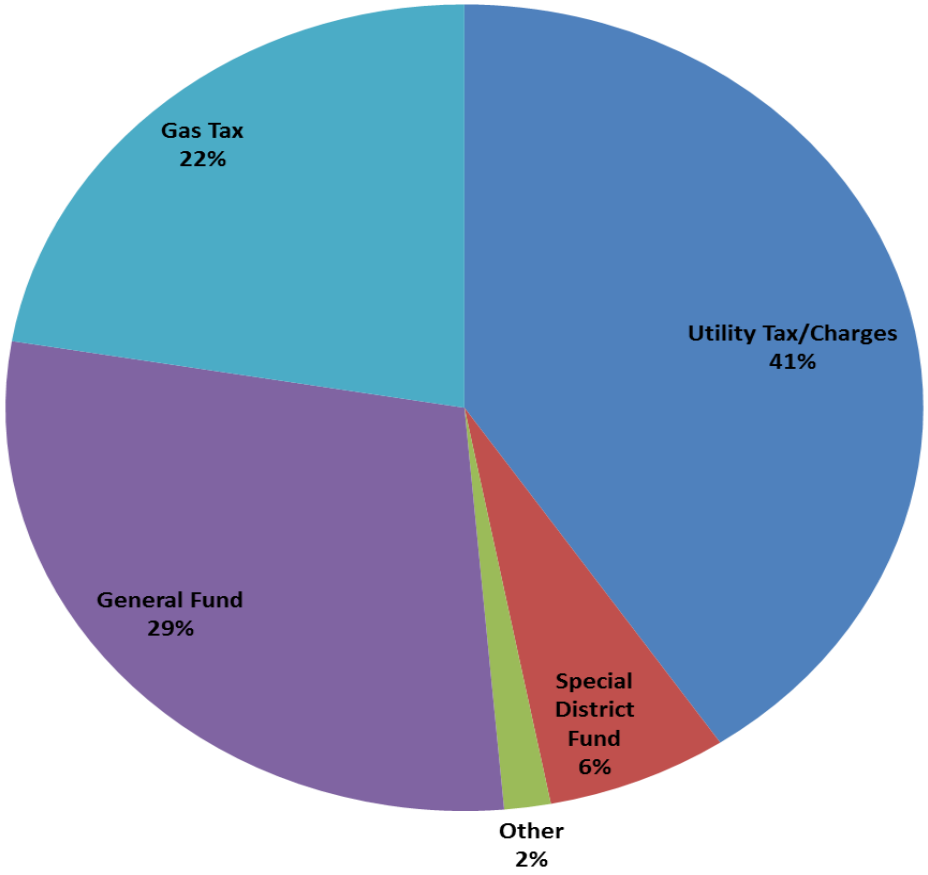
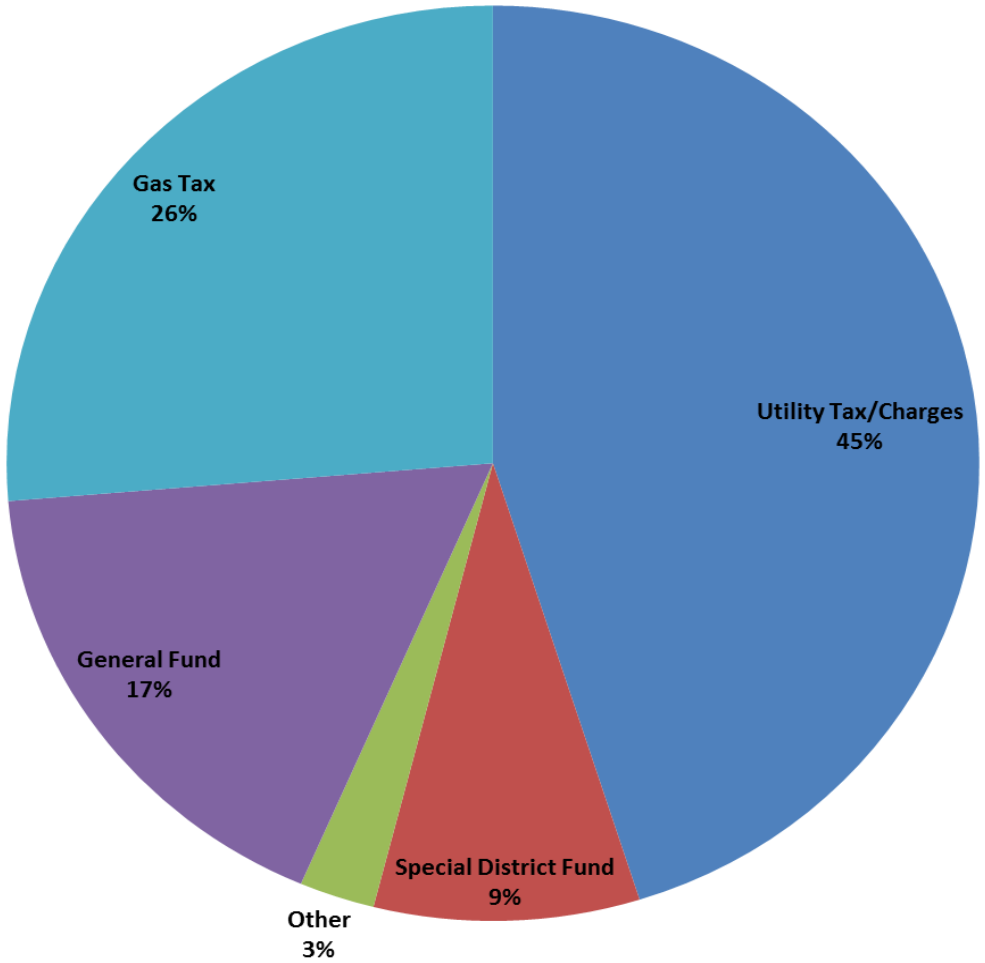


Figure C-2.6: 2015-16 Projected Funding Sources



State of California
California Regional Water Quality Control Board
Santa Ana Region

ORDER NO. R8-2009-0030
NPDES No. CAS618030

Waste Discharge Requirements
for
the County of Orange, Orange County Flood Control District
and
The Incorporated Cities of Orange County within the Santa Ana Region
Areawide Urban Storm Water Runoff
Orange County

FINDINGS

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Regional Board) finds that:

A. REGULATORY BASIS

1. The 1987 amendments to the Clean Water Act (CWA) added Section 402(p) (USC §1342(p)) establishing a framework for regulating municipal and industrial (including construction) storm water discharges under the National Pollutant Discharge Elimination System (NPDES) permit. Section 402(p) of the CWA requires NPDES permits for storm water discharges from municipal separate storm sewer systems[1] (storm drains or MS4s) as well as other designated storm water discharges that are considered significant contributors of pollutants to waters of the United States (waters of the US). On November 16, 1990, the United States Environmental Protection Agency (hereinafter EPA) amended its NPDES permit regulations to include permit application requirements for storm water discharges. These regulations are codified in Code of Federal Regulations, Title 40, Parts 122, 123 and 124 (40 CFR Parts 122, 123 & 124).

2. This order is based on Section 402(p) of the CWA; 40 CFR Parts 122, 123, and 124; Porter-Cologne Water Quality Control Act (Division 7 of the California Water Code or CWC, commencing with Section 13000); all applicable provisions of statewide Water Quality Control Plans and Policies adopted by the State Water Resources Control Board (State Board); the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan); the California Toxics Rule (CTR); and the California Toxics Rule Implementation Plan. A revised Basin Plan was adopted by the Regional Board and became effective on January 24, 1995. The Basin Plan contains water quality objectives and beneficial uses for water bodies in the Santa Ana Region. Under the CWA, the beneficial uses and the water quality objectives to protect those beneficial uses are collectively referred to as water quality standards. The Basin Plan also incorporates by reference all State Board water quality control

[1] A municipal separate storm sewer **system** (MS4) is any conveyance or a system of conveyances designed to collect and/or transport storm water, such as, storm drains, manmade channels, ditches, roads w/drainage systems, catch basins, curbs, gutters, etc., which is not part of a Publicly Owned Treatment Works (i.e., not a combined sewer).

plans and policies, including the 1990 Water Quality Control Plan for Ocean Waters of California (Ocean Plan).

3. The requirements contained in this order are necessary to protect water quality standards of the receiving waters and to implement the plans and policies described in the above finding. These plans and policies contain numeric and narrative water quality standards for the water bodies in this Region. In accordance with Section 402(p)(2)(B)(iii) of CWA and its implementing regulations, this order requires the permittees to develop and implement programs and policies necessary to reduce the discharge of pollutants in urban storm water runoff to waters of the US to the maximum extent practicable (MEP)[2]. The legislative history and the preamble to the federal storm water regulations (40 CFR Parts 122, 123 and 124) indicate that the Congress and the EPA were aware of the difficulties in regulating urban storm water runoff solely through traditional end-of-pipe treatment. Consistent with the CWA, it is the Regional Board's intent that this order require the implementation of best management practices (BMPs)[3] to reduce to the maximum extent practicable, the discharge of pollutants in urban storm water from the MS4s in order to support attainment of water quality standards. This order, therefore, includes Receiving Water Limitations[4] based upon water quality objectives, and requires implementation of control measures to protect the beneficial uses. It also prohibits the creation of nuisance and requires the reduction of water quality impairment in receiving waters with an ultimate goal of achieving water quality objectives of the receiving waters.

4. This order is consistent with recent court decisions and precedential orders adopted by the State Board related to municipal storm water NPDES permits. These precedential State Board orders include: Orders No. 99-05, WQ 2001-15 and WQO 2002-0014.

5. This order does not constitute an unfunded mandate subject to subvention under Article XIII.B, Section (6) of the California Constitution for several reasons, including the following:

    a) This order implements federally mandated requirements under Clean Water Act Section 402(p)(3)(B). (33 USC § 1342(p)(3)(B)).

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[2] MEP is not defined in the CWA; it refers to management practices, control techniques, and system, design and engineering methods for the control of pollutants taking into account considerations of synergistic, additive, and competing factors, including, but not limited to, gravity of the problem, technical feasibility, fiscal feasibility, public health risks, societal concerns, and social benefits.

[3] Best Management Practices (BMPs) are programs and policies, including structural controls where appropriate, that are implemented to control the discharge of pollutants.

[4] Receiving Water Limitations are requirements included in the orders issued by the Regional Board to assure that the regulated discharge does not violate water quality standards established in the Basin Plan at the point of discharge to waters of the US or the State.

b) The permittees' obligation under this order are similar to, and in many respects less stringent than, the obligations of non-governmental dischargers who are issued NPDES permits for storm water discharges.

c) The permittees have the authority to levy service charges, fees, or assessments to pay for compliance with this order, where voter approval is needed, the permittees should strive to gain voter approval[5].

d) The permittees requested permit coverage in lieu of compliance with the complete prohibition against the discharge of pollutants contained in federal Clean Water Act Section 301, subdivision (a). (33 USC § 1311(a)).

B. REGULATED ENTITIES (PERMITTEES OR DISCHARGERS)

6. On July 22, 2006, the County of Orange, Orange County Flood Control District (OCFCD) and the incorporated cities of Anaheim, Brea, Buena Park, Costa Mesa, Cypress, Fountain Valley, Fullerton, Garden Grove, Huntington Beach, Irvine, Laguna Hills, Laguna Woods, La Habra, La Palma, Lake Forest, Los Alamitos, Newport Beach, Orange, Placentia, Santa Ana, Seal Beach, Stanton, Tustin, Villa Park, Westminster, and Yorba Linda (hereinafter collectively referred to as permittees or dischargers), submitted NPDES Application No. CAS618030 and a Report of Waste Discharge for reissuance of their areawide urban storm water permit. In order to more effectively carry out the requirements of this order, the permittees have agreed that the County of Orange will continue as principal permittee and the OCFCD and the incorporated cities will continue as co-permittees. Certain portions of the cities of Laguna Hills, Laguna Woods and Lake Forest are within the San Diego Regional Board's jurisdiction. As such, these cities are also regulated under urban storm water permit issued by the San Diego Regional Board.

7. The permittees fall into one of the following categories: (1) a medium or large municipality that services a population of greater than 100,000 or 250,000 respectively; or, (2) a small municipality that is interrelated to a medium or large municipality. Under Section 402(p) of the Clean Water Act, these dischargers (permittees) are required to obtain coverage under an NPDES permit for storm water runoff from their jurisdictions.

C. REGULATED DISCHARGES

8. This order is intended to regulate the discharge of pollutants in urban storm water runoff from anthropogenic (generated from human activities) sources and/or activities within the jurisdiction and control of the permittees and is not intended to address background or naturally occurring pollutants or flows.

9. The permittees own and operate storm drains, including flood control facilities. Some of the natural channels, streambeds and other drainage facilities that are generally considered as waters of the US have been converted to flood control

[5] For example, the City of Santa Cruz voted to raise property taxes to fund the storm water program at the November 4, 2008 election (see: http://www.santacruzsentinel.com/localnews/ci_10904561).

facilities. The permittees have established legal authority to control discharges into these systems that they own, operate and/or regulate. As owners and/or operators of the MS4 systems, the permittees are responsible for discharges into their systems that they do not prohibit or control (except where they lack jurisdiction; see A.10 below). The discharge of pollutants into the MS4s may cause or contribute to, or threaten to cause or contribute to, a condition of pollution in receiving waters. Federal regulations, 40 CFR 122.26(d)(2)(i), require the permittees to control the discharge of pollutants into the MS4s to the maximum extent practicable.

10. The permittees may lack legal jurisdiction over urban runoff into their systems from some state and federal facilities, utilities and special districts, Native American tribal lands, waste water management agencies and other point and non-point source discharges otherwise permitted by the Regional Board. The Regional Board recognizes that the permittees should not be held responsible for such facilities and/or discharges. Similarly, certain activities that generate pollutants present in urban runoff may be beyond the ability of the permittees to eliminate. Examples of these include operation of internal combustion engines, atmospheric deposition, brake pad wear, tire wear and leaching of naturally occurring minerals from local geography.

11. This order regulates storm water runoff and certain types of de-minimus discharges specifically authorized under Section III of this order (collectively referred to as urban runoff) from areas under the jurisdiction of the permittees. For purposes of this order, urban runoff includes storm water and authorized non-storm water (see Section III) discharges from residential, commercial, industrial and construction areas within the permitted area and excludes discharges from feedlots, dairies, and farms. Urban runoff consists of surface runoff generated from various land uses in all the hydrologic drainage areas that discharge into waters of the US. The quality of these discharges varies considerably and is affected by land use activities, basin hydrology and geology, season, the frequency and duration of storm events, and the presence of illicit discharge[6] practices and illicit[7] connections.

12. The permittees have the authority to approve plans for residential, commercial, and industrial developments. If not properly controlled and managed, urbanization could result in the discharge of pollutants in urban runoff[8]. "America's Clean Water-The States' Nonpoint Source Assessment, 1985" and the Biennial National Water Quality Inventory Reports to Congress cite urban runoff as a major source of

[6] Illicit discharge means any disposal, either intentionally or unintentionally, of material or waste that can pollute urban runoff or create a nuisance.

[7] Illicit connections are those which are not properly authorized or permitted by the municipality or the owner/operator of the conveyance system.

[8] U.S. EPA. 1983. Results of the Nationwide Urban Runoff Program, Vol. 1, Final report. NTIS PB84-185552.

beneficial use impairment. Urban area runoff may contain[9] elevated levels of pathogens (e.g., bacteria, protozoa, viruses), sediment, trash, fertilizers (nutrients, compounds of nitrogen and phosphorus), pesticides (e.g., DDT, Chlordane, Diazinon, Chlorpyrifos), heavy metals (e.g., cadmium, chromium, copper, lead, zinc), and petroleum products (e.g., oil, grease, petroleum hydrocarbons, polycyclic aromatic hydrocarbons). Urban runoff can carry these pollutants to rivers, streams, lakes, bays and the ocean (receiving waters[10]). In addition, increased flows due to urbanization may increase erosion of stream banks and channels and cause stream channel alterations and impact aquatic resources. This order regulates the discharge of pollutants to waters of the US, to protect beneficial uses of the receiving waters.

13. Urban activities also generate non-storm water discharges such as air conditioning condensate, irrigation runoff, individual residential car washing, etc., generally referred to as de minimus type of discharges. If properly managed, these types of discharges may not contain significant amount of pollutants. Some of these de minimus types of discharges are currently being regulated under separate orders issued by the Regional Board, and some of the specific types of de minimus discharges are authorized under this order (see Section III of this order). Orders No. R8-2003-0061 (NPDES No CAG998001), R8-2004-0021 (NPDES No. CAG998002) and R8-2007-0041 (NPDES No. CAG918002) issued by the Regional Board regulate de-minimus types of discharges.

D. HISTORY OF ORANGE COUNTY MUNICIPAL STORM WATER PERMIT

14. Prior to EPA's promulgation of the storm water permit regulations, the three counties (Orange, Riverside, and San Bernardino) and the incorporated cities within the jurisdiction of the Santa Ana Regional Board requested areawide NPDES permits for urban runoff. On July 13, 1990, the Regional Board adopted Order No. 90-71 for urban storm water runoff from urban areas in Orange County within the Santa Ana Region (first term Permit). Orders No. 96-31 (second term Permit) and R8-2002-0010 (third term Permit), issued by the Regional Board on March 8, 1996 and January 18, 2002, respectively, renewed the Orange County MS4 permit.

15. Order No. R8-2002-0010 expired on January 19, 2007. On July 22, 2006, the permittees submitted a Report of Waste Discharge for renewal of the Permit. On February 20, 2007, Order No. 2002-0010, NPDES No. CAS618030, was administratively extended in accordance with Title 23, Division 3, Chapter 9, §2235.4 of the California Code of Regulations.

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[9] Makepeace, D.K., D.W. Smith, and S.J. Stanley. 1995. Urban stormwater quality: summary of contaminant data. Critical Reviews in Environmental Science and Technology 25(2):93-139.

[10] Receiving waters are waters of the U.S. (and their tributaries) which are identified in the Basin Plan as having certain beneficial uses (see Finding 19, below, for a list of these waters).

E. PERMIT RENEWAL APPLICATION AND RELATED DOCUMENTS

16. The Report of Waste Discharge (the permit renewal application) included the following major documents/information:

    a) A summary of status of current Storm Water Management Program;

    b) A Proposed Plan of Storm Water Quality Management Activities for 2007-20012, as outlined in the Draft 2007 Drainage Area Management Plan (DAMP). The 2007 DAMP includes all the activities the permittees propose to undertake during the next permit term, goals and objectives of such activities, and an evaluation of the need for additional source control and/or structural and non-structural BMPs and proposed pilot studies;

    c) The permittees have developed Local Implementation Plans (LIPs); established a formal training program; and developed a program effectiveness assessment strategy and Watershed Action Plans;

    d) A Performance Commitment that includes new and existing program elements and compliance schedules necessary to implement controls to reduce pollutants to the maximum extent practicable;

    e) A summary of procedures implemented to detect illicit discharges and illicit connection practices;

    f) A summary of enforcement procedures and actions taken to require storm water discharges to comply with the approved Storm Water Management Program;

    g) A summary of public agency activities, results of monitoring program, and program effectiveness assessment; and,

    h) A fiscal analysis.

17. The documents referenced in Finding E.16, above, are hereby incorporated as enforceable elements of this order.

F. PERMITTED AREA

18. The permitted area is shown on Attachment A. It includes the northern portions of Orange County, including the 26 incorporated cities listed under Finding 6, above. The permittees serve a population of approximately 3.1 million, occupying an area of approximately 789 square miles (including unincorporated areas and the limits of 34 cities, 26 of which are within the jurisdiction of this Regional Board; three of the cities, Laguna Hills, Laguna Woods and Lake Forest, are within both the San Diego and Santa Ana Regional Boards' jurisdictions). The permittees have jurisdiction over and/or maintenance responsibility for storm water conveyance systems within Orange County. The County Flood Control system includes an estimated 740 miles of storm drains. A major portion of the urbanized areas of Orange County drains into waterbodies within this Regional Board's jurisdiction. In certain cases, where a natural streambed is modified to convey storm water flows, the conveyance system becomes both a storm drain and a receiving water. The major storm drain systems and drainage areas in Orange County, which are within this Region, are shown on

Attachment B. A portion of the Orange County drainage area is within the jurisdiction of the San Diego Regional Board and is regulated under an order issued by that Board.

G. RECEIVING WATERS AND BENEFICIAL USES

19. Storm water runoff from the MS4s in Orange County enter, or are tributary to, various water bodies of the Region. The permitted area can be subdivided into five tributary watersheds: the San Gabriel River drainage area, the Huntington Harbour and Bolsa Bay drainage area, the Santa Ana River drainage area, the Newport Bay drainage area, and the Irvine and Newport Coast Areas of Special Biological Significance (see Attachment B). These watersheds are tributary to the Pacific Ocean. The surface water bodies in Orange County that could be impacted by urban runoff include:

Inland Surface Streams

Santa Ana River, Reaches 1 and 2

Aliso Creek (tributary to Santa Ana River)

Carbon Canyon Creek (tributary to Santa Ana River)

Santiago Creek, Reaches 1, 2, 3, and 4 (tributary to the Santa Ana River)

Silverado Creek (tributary to Santiago Creek)

Black Star Creek (tributary to Santiago Creek)

Ladd Creek (tributary to Santiago Creek)

San Diego Creek, Reaches 1 and 2 (tributary to Newport Bay)

San Joaquin Freshwater Marsh (tributary to San Diego Creek)

Other tributaries to San Diego Creek: Bonita Creek, Serrano Creek, Peters Canyon Wash, Hicks Canyon Wash, Bee Canyon Wash, Borrego Canyon Wash, Agua Chinon Wash, Laguna Canyon Wash, Rattlesnake Canyon Wash, and Sand Canyon Wash

Santa Ana Delhi Channel (tributary to Newport Bay)

Big Canyon Wash (tributary to Newport Bay)

Buck Gully

Los Trancos Creek

Coyote Creek (tributary to San Gabriel River)

Other tributaries to the above listed rivers, creeks and channels

Bays, Estuaries, and Tidal Prisms

Anaheim Bay and Seal Beach National Wildlife Refuge

Sunset Bay

Bolsa Bay and Bolsa Chica Ecological Reserve

Upper and Lower Newport Bay

Tidal Prism of Santa Ana River (to within 1000 feet of Victoria Street) and Newport Slough, Santa Ana Salt Marsh

Tidal Prism of San Gabriel River (River Mouth to Marina Drive)

Tidal Prisms of Flood Control Channels Discharging to Coastal or Bay Waters (e.g. Huntington Harbour)

Ocean Water

Nearshore Zone

San Gabriel River to Poppy Street in Corona Del Mar

Poppy Street to Southeast Regional Boundary

Offshore Zone

Waters between Nearshore Zone and limit of State Waters

Lakes and Reservoirs

Anaheim Lake

Irvine Lake (Santiago Reservoir)

Laguna, Lambert, Peters Canyon, Rattlesnake, Sand Canyon and Siphon Reservoirs

20. The beneficial uses of these water bodies include: municipal and domestic supply, agricultural supply, industrial service and process supply, groundwater recharge, navigation, hydropower generation, water contact recreation, non-contact water recreation, commercial and sport fishing, warm freshwater and limited warm freshwater habitats, cold freshwater habitat, preservation of biological habitats of special significance, wildlife habitat, preservation of rare, threatened or endangered species, marine habitat, shellfish harvesting, spawning, reproduction and development of aquatic habitats, and estuarine habitat. The ultimate goal of this storm water management program is to achieve water quality objectives in the receiving waters, thereby protecting their beneficial uses.

21. Federal regulations, 40 CFR 131.10(a), prohibits the states from designating a water body for waste transport or waste assimilation. This order prohibits the construction of treatment BMPs within waters of the US. However, if the discharges are sufficiently treated to protect the beneficial uses of the receiving waters, further polishing of the discharge within waters of the US may be considered on a case-by-case basis. Federal authorization under Section 404 and Water Quality Standards Certification under Section 401 of the Clean Water Act may be required for waste treatment or conveyance within waters of the US. Pursuant to Water Code Section 13260, Waste Discharge Requirements may be required for such facilities within waters of the State. Under certain conditions, stream flows may be diverted for treatment (see Section III for conditions on return flows from facilities that extract, treat and return flows from the waters of the US).

H. INTERRELATED WATERSHEDS AND STORM WATER PERMITS

22. The Santa Ana River Basin is the major watershed within the jurisdiction of the Regional Board. The lower Santa Ana River Basin (downstream from Prado Basin) includes the Orange County drainage areas, and the Upper Santa Ana River Basin includes the San Bernardino County and the Riverside County drainage areas. Generally, the San Bernardino County drainage areas drain to the Riverside County drainage areas, and Riverside County drainage areas discharge to Orange County.

23. Within the Region, runoff from the San Bernardino County areas is generally conveyed to the Riverside County areas through the Santa Ana River or other drainage channels tributary to the Santa Ana River. These flows are then discharged to Reach 2 of the Santa Ana River through Prado Basin (Reach 3 of the Santa Ana River). During dry weather conditions, most of the flow in Reach 2 is recharged in Orange County. During wet weather, some of the flow is discharged to the Pacific Ocean through Reach 1 of the Santa Ana River.

24. The three county areas within this Region are regulated under three areawide permits for urban storm water runoff. These areawide NPDES permits are:

    Orange County, NPDES No. CAS618030;

    Riverside County, NPDES No. CAS618033; and,

    San Bernardino County, NPDES No. CAS618036.

    For an effective watershed management program, cooperation and coordination among the regulators, the municipal permittees, the public, and other entities are essential.

25. Studies conducted by the USEPA, the states, flood control districts and other entities indicate the following major sources for urban storm water pollution nationwide:

    Industrial sites where appropriate pollution control and BMPs are not implemented;

    Construction sites where erosion and siltation controls and other BMPs are not implemented; and,

    Urban runoff where the drainage area is not properly managed.

26. A number of permits have been adopted to address pollution from the sources identified in Finding 25, above. The State Board issued three statewide general NPDES permits: one for storm water runoff from industrial activities (NPDES No. CAS000001, General Industrial Activities Storm Water Permit), a second permit for storm water runoff from construction activities (NPDES No. CAS000002, General Construction Activity Storm Water Permit) and a third permit for Storm Water Runoff Associated with Small Linear Underground/Overhead Construction Projects (CAS000005). Industrial activities (as identified in 40 CFR 122.26(b)(14)) and construction sites of one acre or more, are required to obtain coverage under these statewide general permits. The permittees have developed project conditions of approval requiring coverage under the State's General Permits for new

developments to be implemented at the time of grading or building permit issuance for construction sites on one acre or more and at the time of local permit issuance for industrial facilities.

27. The State Board also adopted NPDES No. CAS000003 for storm water runoff from facilities (including freeways and highways) owned and/or operated by California Department of Transportation (Caltrans) and NPDES No. CAS000004, for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems. The Regional Board adopted Order No. R8-2007-0001, NPDES No. CAG018001, for concentrated animal feeding operations, including dairies. The Regional Board also issues individual storm water permits for certain industrial facilities within the Region. Currently there are two facilities located within Orange County. Additionally, for a number of facilities that discharge process wastewater and storm water, storm water discharge requirements are included with the facilities' NPDES permit for process wastewater.

28. In most cases, the industries and construction sites covered under the Statewide General Industrial and Construction Permits discharge into storm drains and/or flood control facilities owned and operated by the permittees. These industries and construction sites are also regulated under local laws and regulations. Federal regulations, 40 CFR Part 122.26(d)(2)(iv)(C), also require the permittees to develop and implement programs to control the discharge of pollutants from these sites. A coordinated effort between the permittees and Regional Board staff is critical to avoid duplicative and overlapping efforts when overseeing the compliance of dischargers covered under the Statewide General Permits. As part of this coordination, the permittees have been notifying Regional Board staff when they observe conditions that pose a threat or potential threat to water quality, or when an industrial facility or construction activity has failed to obtain required coverage under the appropriate general storm water permit.

29. Each watershed has unique receiving water issues, land uses, topography, soils and stream stability and habitat issues. The Regional Board and the permittees recognize the importance of integrated watershed management initiatives and regional planning and coordination in the development and implementation of programs and policies related to water quality protection. A number of such efforts are underway in which the permittees are active participants (e.g., Orange County Flood Control Master Plan, Irvine Ranch Water District Natural Treatment System Master Plan, Orange County Watershed Plans, Nutrient and Selenium Management Program, etc.). As recommended in the 2008 National Academy of Sciences Report on Urban Stormwater Management, this order provides an option for the permittees to develop and implement watershed master plans integrating water quality, hydromodification, water supply and habitat protection issues. The Regional Board recognizes that a watershed master plan should integrate all other related programs, including the storm water program and TMDL processes. Consistent with this approach, some of the municipal storm water monitoring programs have already been integrated into a regional monitoring program. The Regional Board also recognizes that, in certain cases, diversion of funds targeted for certain monitoring programs to regional monitoring programs may be necessary. The

Executive Officer is authorized to approve, after proper public notification and consideration of all comments received, the integrated watershed management initiatives and regional planning and coordination programs and regional monitoring programs. The permittees are required to submit all documents, where appropriate, in an electronic format. All such documents will be posted at the Regional Board's website and all interested parties will be notified. In addition, the website will include the administrative and civil procedures for appealing any decision made by the Executive Officer. Some urban runoff issues, such as monitoring, public education and training can be more effectively addressed on a regional or statewide basis, thereby increasing program consistency and efficiency. This order encourages continued participation in such programs and policies.

30. The permittees are required to conduct inspections (40 CFR Part 122.26(d)(2)(iv)(C)(2)) of construction sites, industrial facilities and commercial establishments. Inspection requirements, including criteria for prioritization of facilities for the inspection, were included in the third term permit. The construction and industrial inspection programs in the third term permit had established criteria/examples. However, the commercial inspection program only included a preliminary list of types of facilities to be inspected. Further refinements to the commercial inspection program are included in this order and these include: moving mobile businesses into their own program; including eating establishments (previously their own pilot program); and the addition of some key categories, not included on the 3rd term permit list. It should also be noted that some of these additional categories are directly related to current categories or identified in the Model Urban Runoff Program[11] and all of the additional categories are proposed for inclusion in other Southern California MS4 permits. To avoid duplicative efforts, the permittees need not inspect facilities that have been inspected by Regional Board staff, if the inspection was conducted during the specified time period. It is anticipated that many of the inspections required under this order can and will be carried out by inspectors currently conducting other types of inspections for the permittees (i.e., grading, building, code enforcement, etc.), during their normal duties. It is critical that these inspectors be properly trained in storm water pollution prevention and related issues.

I. POTENTIAL POLLUTANTS IN STORM WATER RUNOFF/IMPACTS ON BENEFICIAL USES

31. The permittees have conducted urban runoff and receiving water monitoring as required under the first, second and third term permits. The third term permit required monitoring using a wider array of methods to assess impacts caused by pollutants in urban runoff. In addition to monitoring the water column under wet and dry weather conditions, the permittees were required to monitor: water column toxicity, mass emission rates, estuary/wetlands including sediment and benthic monitoring, bacteriological/pathogen concentrations and bioassessment analysis. These monitoring programs indicate exceedances of Basin Plan, CTR and/or AB

[11] Model Urban Runoff Program, prepared by the City of Monterey, California Coastal Commission, et. al., revised February 2002 by California Coastal Commission.

411 objectives for a number of constituents. The Report of Waste Discharge identifies copper and zinc, trash and debris, pesticide toxicity and pathogens as the major pollutants of concern. Monitoring data indicate that storm water and dry weather urban runoff continue to have pollutants at levels that could cause or contribute to exceedances of water quality objectives in the receiving waters. The permittees are proposing to conduct special studies to address these pollutants of concern during the fourth term permit.

32. The annual reports submitted by the permittees indicate that urban runoff is still causing or contributing to water quality standards violations. Some of the samples collected during both dry and wet weather exceeded the water quality standards. However, the exceedances during wet weather were more widespread compared to dry weather runoff. The monitoring reports indicate that there is some reduction in the mass loading rates for some of the metals, such as copper and zinc.

33. The results from the monitoring programs did not establish a clear correlation between pollutants in dry or wet weather runoff and impacts on beneficial uses in the receiving waters. However, exceedances of water quality objectives, including exceedances of AB411 standards, were reported for a number of monitoring locations by the permittees. Shoreline monitoring data indicate that AB411 exceedances are higher during the summer months (AB411 season) compared to the winter months. For the interior channels, AB411 exceedances were higher than shoreline, but were not significantly different for summer and winter months[12]. The index of biotic integrity rating is generally poor for most urban streams. The monitoring data also indicated sporadic exceedances of water quality objectives for dissolved oxygen, pH, turbidity, ammonia-nitrogen, surfactants, and some of the metals[13].

34. During the summers of 1999 and 2000, a number of locations along the Orange County coast exhibited elevated bacterial levels. Since then a number of studies have been conducted that indicate that urban runoff, especially dry weather runoff, is a major contributing factor to the Orange County coastal bacterial contamination problems. To address this bacterial problem, the permittees currently divert dry weather low flows from some of these areas to the sanitary sewer. With the diversion of dry weather flows to the sanitary sewer, there have been significant improvements in the beach water quality. A number of studies have been conducted to determine the source of this microbial contamination and to develop permanent remedial measures. These studies have not conclusively determined the sources or solutions to this problem.

35. Monitoring results have indicated the presence of elevated concentrations of pesticides in storm water runoff from urban areas. The permittees have developed and implemented a model plan entitled, "Management Guidelines for Use of Fertilizers and Pesticides". The Report of Waste Discharge indicates that through implementation of this program, the municipalities have reduced the use of fertilizers

[12] Unified Annual Progress Report, 2005-2006, Page C-11-31.

[13] Unified Annual Progress Report, 2005-2006, Attachment C-11-VII.

and pesticides. The permittees are required to review this plan to make any needed changes. TMDLs are being developed for some of the pesticides for the Newport Bay watershed. This order may be reopened to include any TMDL requirements.

36. Pollutants in urban runoff can impact the beneficial uses of the receiving waters and can cause or threaten to cause a condition of pollution or nuisance. Pathogens, such as bacteria, viruses, protozoa, (from sanitary sewer overflows, septic system leaks, spills and leaks from portable toilets, pets, wildlife and human activities) can impact water contact recreation, non-contact water recreation and shellfish harvesting. Microbial contamination of the beaches from urban runoff and other sources has resulted in a number of health advisories issued by the Orange County Health Officer. Oil and grease (from automobiles, industrial sites, etc.) can coat birds and aquatic organisms, adversely affecting respiration and/or thermoregulation. Other petroleum hydrocarbon components can cause toxicity to aquatic organisms and can impact human health. Suspended and settleable solids (from sediment, trash, and industrial activities) can be deleterious to benthic organisms and may cause anaerobic conditions. Sediments and other suspended particulates (from construction sites, erosion due to hydromodification, etc.) can cause turbidity, clog fish gills and interfere with respiration in aquatic fauna. These pollutants can also screen out light, hindering photosynthesis and normal aquatic plant growth and development. Toxic substances (from pesticides, herbicides, petroleum products, metals) can cause acute and/or chronic toxicity, and can bioaccumulate in organisms to levels that may be harmful to human health. Nutrients (from fertilizers, confined animal feeding operations, wildlife, pets and birds) can cause excessive algal blooms. These blooms can lead to problems with taste, odor, color and increased turbidity, and can depress the dissolved oxygen content, leading to fish kills. Stagnant water trapped in trash and debris creates breeding conditions for disease vectors (e.g., mosquitoes). Trash and debris, in particular plastics, have long been recognized as both aesthetic nuisances and as threats to freshwater and marine environments. Plastic debris, in the form of broken-down packaging and pre-production plastic pellets or 'nurdles', harms hundreds of wildlife species through ingestion, entanglement and entrapment. These plastic nurdles have the capability of absorbing pollutants, such as PCBs, and when ingested by wildlife, expose those animals to pollutant concentrations that are orders of magnitude higher than the surrounding water. Water Code Section 13367 requires the State Board and the regional boards to implement a program to control discharges of preproduction plastic from point and nonpoint sources. In collaboration with the permittees, Regional Board staff is currently trying to address this problem through the State's General Storm Water Permit for Industrial Activities and local controls.

37. Pollutants in urban runoff could adversely impact human health and the environment. Human illnesses have been linked to recreational activities in coastal waters especially near storm drain outlets[14]. Bioaccumulation of pollutants, present

[14] The Santa Monica Bay Restoration Project, Epidemiology Study, 1996.

in urban runoff, can occur in fish and other aquatic organisms. These organisms may be consumed by birds and humans. Pollutants in urban runoff can also cause mortality, impair growth and reproduction anomalies in aquatic organisms. If not properly designed and maintained, urban storm water treatment systems could provide breeding areas for disease vectors, such as mosquitoes, which are a public health concern (e.g., West Nile Virus).

38. It is important to control litter in order to eliminate trash and other materials in storm water runoff. In addition to the municipal ordinances prohibiting litter, the permittees participate or organize a number of other programs such as "Coastal Cleanup Day", "Pride Days", "Volunteer Collection Day", etc. The permittees also organize solid waste collection programs, household hazardous waste collections, and recycling programs to reduce litter and illicit discharges. Additionally, the permittees have installed debris booms at a number of locations to capture trash and debris preventing it from depositing on beaches.

39. The pollutants from urbanized areas are also a significant threat to environmentally sensitive areas, such as waterbodies designated as supporting a RARE beneficial use (supporting rare, threatened or endangered species), areas of special biological significance (ASBSs) and Clean Water Act Section 303(d) listed impaired waterbodies. The State Board is developing Special Protections for Storm Water and Non-point Source Discharges to ASBSs. Where applicable, the permittees are expected to comply with these Special Protection requirements for the ASBSs.

J. CWA SECTION 303(d) LISTED WATERBODIES AND TMDLS

40. Water quality assessments conducted by Regional Board staff have identified a number of water quality standards impairments due, in part, to urban runoff. Section 305(b) of the CWA requires each of the regional boards to routinely monitor and assess the quality of waters of the region. If this assessment indicates that beneficial uses and/or water quality objectives are not being met, then that waterbody must be listed under Section 303(d) of the CWA as an impaired waterbody. The 2006 State water quality assessment listed a number of water bodies within the Region under Section 303(d) as impaired waterbodies. For many of these impaired waterbodies, one of the listed causes of impairment is urban runoff. In the Orange County area, these include:

San Diego Creek, Reach 1 (listed for toxaphene, selenium, fecal coliform, nutrients, pesticides, sediment/siltation);

San Diego Creek, Reach 2 (listed for metals, nutrients, sediment/siltation, unknown toxicity);

Upper Newport Bay Ecological Reserve (listed for sediment toxicity, metals, copper, chlordane, PCBs, DDT, nutrients, pathogens, pesticides, sediment/siltation);

Lower Newport Bay (listed for chlordane, copper, DDT, sediment toxicity, PCBs, nutrients, pathogens, pesticides);

Anaheim Bay (listed for nickel, dieldrin, sediment toxicity, PCBs);

Huntington Harbour (listed for copper, lead, nickel, chlordane, pathogens, PCBs, sediment toxicity);

Santiago Creek, Reach 4 (listed for salinity, TDS, chlorides);

Seal Beach (listed for enteroccocus, PCBs);

Silverado Creek (listed for pathogens, salinity, TDS, chlorides);

Rhine Channel (listed for copper, lead, mercury, zinc, sediment toxicity, PCBs);

Peters Canyon Channel (listed for DDT, toxaphene);

Los Trancos Creek (Crystal Cove Creek) (listed for total and fecal coliform);

Huntington Beach State Park (listed for enteroccocus, indicator bacteria, PCBs);

Bolsa Chica State Beach (listed for copper and nickel);

Buck Gully Creek (listed for total and fecal coliform); and

Balboa Beach (listed for dieldrin, DDT, PCBs).

41. Federal regulations require that a total maximum daily load (TMDL) be established for each 303(d) listed waterbody for each of the pollutants causing impairment. The TMDL is the total amount of the pollutant that can be discharged while water quality standards in the receiving water are attained, i.e., water quality objectives are met and the beneficial uses are protected. A TMDL is the sum of the individual wasteload allocations (WLA) for point source inputs, load allocations (LA) for non-point source inputs and natural background, plus a margin of safety. TMDLs are one of the bases for limitations established in waste discharge requirements.

42. For 303(d) listed waterbodies without a TMDL, the permittees are required to provide special protections through development and implementation of Watershed Action Plans or other focused control measures that would address the pollutant of concern. If a TMDL has been developed and an implementation plan is yet to be developed, the permittees are required to develop constituent specific source control measures, conduct additional monitoring and/or cooperate with the development of an implementation plan.

43. TMDLs have been established by the Regional Board for sediment, fecal coliform, diazinon, chlorpyrifos and nutrients for the Newport Bay watershed. Organochlorine compounds TMDLs were adopted by the Regional Board on September 7, 2007. In addition, toxics TMDLs were promulgated by USEPA on June 14, 2002, including TMDLs for metals and selenium, and a TMDL specific to the Rhine Channel located in Lower Newport Bay.

44. TMDLs for diazinon and chlorpyrifos in San Diego Creek, and for chlorpyrifos in Upper Newport Bay, were adopted by the Regional Board on April 4, 2003, and subsequently approved by the State Board, State Office of Administrative Law, and EPA. The diazinon and chlorpyrifos TMDLs require all MS4 permittees in the

Newport Bay Watershed to develop and implement monitoring programs for diazinon and chlorpyrifos. The TMDLs also impose limits on the discharge of these compounds. This order incorporates these requirements.

45. The fecal coliform TMDL specifies WLAs for urban runoff to protect water contact recreation and shellfish harvesting beneficial uses. The implementation plan for the fecal coliform TMDL requires that monitoring and certain investigations be conducted, including a source identification and characterization investigation of urban runoff. An updated TMDL report is to be prepared based on the data and information collected, and the TMDL is to be adjusted, as necessary, based on the updated TMDL report. This order may be reopened to incorporate additional requirements based on findings in the source identification and characterization plan that is expected to be completed in 2009. This order may be reopened to incorporate additional or revised requirements based on the updated TMDL report and/or approved changes to the TMDL.

46. As indicated above, nutrient (nitrogen and phosphorus) TMDLs have been established by the Regional Board for the Newport Bay watershed. The current and future (year 2012) targets for the nutrient TMDLs are already being met. However, Board staff is currently reevaluating the nutrient TMDLs in light of evidence that there remains impairment of these waters due to eutrophication. The EPA promulgated TMDLs for selenium but, an implementation plan is yet to be developed. The Regional Board adopted Orders No. R8-2004-021 and R8-2007-0041 as interim control measures to address nitrogen and selenium in groundwater-related discharges to the Newport Bay watershed. In response to Order No. R8-2004-0021, stakeholders established a Nitrogen Selenium Management Program (NSMP) Working Group. The Working Group is implementing an approved workplan that is expected to identify comprehensive management plans for both selenium and nitrogen in groundwater in the Newport Bay watershed. Board staff is currently developing selenium TMDLs that will update and revise those established by EPA and that will include an implementation plan. The implementation plan will rely heavily on the findings and recommendations made by the NSMP Working Group. It is expected that the implementation plan will include the opportunity for an adaptive, collaborative approach by stakeholders in the watershed to address selenium and nitrogen in comprehensive and efficient fashion. This approach may be implemented through a cooperative agreement or, alternatively, through waste discharge requirements or a conditional waiver of waste discharge requirements.

47. In support of the nutrient TMDLs implementation plan, a regional monitoring program (RMP) was developed to monitor nutrients in San Diego Creek and Newport Bay. This order requires the permittees listed under the RMP to continue their participation in the RMP program.

48. On September 7, 2007, the Regional Board adopted TMDLs for organochlorine compounds (OCs) that specify WLAs for urban runoff for DDT and toxaphene in San Diego Creek, and DDT, chlordane, and PCBs in Upper and Lower Newport Bay. The OCs TMDLs also specify informational TMDLs with informational urban

runoff WLAs for chlordane and PCBs in San Diego Creek. The OCs TMDLs require approval from the State Board, the State Office of Administrative Law, and EPA. The implementation plan for the OCs TMDLs includes monitoring and, where necessary, enhanced implementation of best management practices (BMPs) to reduce erosion and sediment transport as organochlorine compounds tend to adhere to fine sediment. In addition, the OCs TMDL implementation plan provides an opportunity for dischargers to participate in the development and implementation of a comprehensive Work Plan that would address the OCs and other sources of toxicity in the San Diego Creek and Newport Bay watersheds. Once a Work Plan is developed, it is required to be approved by the Regional Board at a public hearing. Participation by the permittees in this process will obviate the need for individual actions on the tasks in Table NB-OCs-13[15] by members of the Working Group. The County of Orange and Newport Bay watershed MS4 permittees have initiated efforts to develop a Work Plan. MS4 permittees not electing to participate in the Work Plan approach will be required to implement the tasks shown in Table NB-OCs-13, as appropriate.

49. The State Board awarded a grant to the South Coast Resource Conservation and Development Council in partnership with the University of California Cooperative Extension to investigate and demonstrate strategies to reduce pesticide runoff from urban areas. A pesticide management plan for the Newport Bay watershed has been developed under this program[16].

50. If the TMDL implementation plans include compliance schedules beyond the permit term, monitoring and other requirements are being included in this order to monitor progress towards achieving future compliance.

51. Certain portions of the San Gabriel River watershed are under the Los Angeles Regional Board's jurisdiction. Urban runoff from cities and county areas within the northwestern portions of Orange County discharge into the San Gabriel River and/or its tributaries. On July 13, 2006, the Los Angeles Regional Board adopted TMDLs for metals in the San Gabriel River watershed. However, because of the state's inability to meet the March 2007 deadline for an approved TMDL prescribed in a consent decree (Heal the Bay Inc., et al. v. Browner C98-4825 SBA), on March 26, 2007, the EPA promulgated TMDLs for metals and selenium for the San Gabriel River. The upper portions of Coyote Creek flow through Orange County to join the San Gabriel River above the tidal prism. Other unnamed tributaries located in northwestern Orange County also discharge into the San Gabriel River estuary. The EPA promulgated TMDLs include wet weather wasteload allocations for Coyote Creek for copper, lead and zinc and dry weather wasteload allocations for copper for Coyote Creek. The permittees are expected to implement programs and policies consistent with the metals and selenium TMDLs for the San Gabriel River watershed. This includes constituent-specific source control programs or other equally effective programs to control

[15] Attachment 2 to Resolution No. R8-2007-0024.

[16] Darren L. Haver and John N. Kabashima, June 30, 2008, Pesticide Runoff Management Plan, Newport Bay Watershed.

the discharge of copper, lead and zinc into Coyote Creek and other tributaries in Orange County that discharge into the San Gabriel River.

52. This order requires permittees to comply with established TMDL wasteload allocations specified for urban runoff and/or storm water by implementing the necessary BMPs. NPDES regulations at 40 CFR 122.44(d)(vii)(B) require that permits be consistent with wasteload allocations approved by U. S. EPA. This order requires the permittees to comply with the urban runoff/storm water wasteload allocations specified in (1) Regional Board-adopted and USEPA approved TMDLs (including TMDLs for nutrients, fecal coliform, diazinon and chlorpyrifos); (2) Regional Board-adopted TMDLs that are approved by the State Board and State Office of Administrative Law and that are thereby effective (approval of organochlorine compounds TMDLs by the State is pending); and, (3) USEPA-promulgated TMDLs (including toxics TMDLs for the Newport watershed). Continuation of water quality/biota monitoring and analysis of the data are essential to better understand the impacts of storm water discharges on the water quality of the receiving waters, impairment caused by urban runoff, compliance with the wasteload allocations and for assessing the effectiveness of control measures.

53. Permittees will be required to comply with established TMDLs and other water quality standards or discharge requirements that may be imposed by the EPA or the State prior to the expiration of this order. This order may be reopened to address established or revised TMDLs and/or other requirements developed and adopted by the Regional Board, EPA or the State Board.

K. DRAINAGE AREA MANAGEMENT PLAN (DAMP)

54. Urban development increases population density and pollutant sources[17] such as construction activities, industrial facilities, auto emissions, wastes related to automobile maintenance activities, sanitary wastes, pesticides, pet wastes, household hazardous wastes and trash[18]. If appropriate BMPs are not implemented, retail gasoline outlets and automobile service stations could be significant sources of pollutants in urban runoff including petroleum hydrocarbons, oil and grease, metals and solvents[19].

55. The local agencies (the permittees) are the owners and operators of the storm water conveyance systems and have established appropriate legal authority to control discharge of pollutants to the MS4s. The permittees have adopted grading and erosion control ordinances and guidelines for the implementation of best management practices (BMPs) for municipal, commercial, and industrial activities.

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[17] U.S. EPA (1992). *Environmental Impacts of Storm Water Discharges: A National Profile,* EPA 841-R-92-001; Office of Water, Washington, DC.

[18] National Management Measures to Control Nonpoint Source Pollution from Urban Areas. USEPA Publication No. EPA 841-B-05-004, November 2005.

[19] Retail Gasoline Outlet and Commercial Parking Lot Storm Water Runoff Study, Western States. Petroleum Association and American Petroleum Institute (1994) at p 13. The study concludes that pollutant concentrations in storm water discharges from properly managed RGOs are similar to concentrations from commercial parking lots and diffuse urban runoff.

The permittees must exercise a combination of these programs, policies, and legal authority to ensure that pollutant loads resulting from urbanization are properly controlled and managed.

56. One of the major tools that the permittees use for urban runoff pollution prevention is the development and implementation of an appropriate DAMP, including best management practices (BMPs). The ultimate goal of the urban storm water management program is to support attainment of water quality objectives for the receiving waters and to protect beneficial uses through the implementation of the DAMP. The permittees developed and submitted a revised draft 2007 DAMP.

57. The DAMP is a dynamic document and the permittees have implemented, or are in the process of implementing, various elements of the DAMP. This order requires the permittees to continue to implement the BMPs listed in the revised DAMP; update or modify the DAMP, when appropriate, consistent with the MEP and other applicable standards; and to effectively prohibit illicit discharges to the storm drain system.

58. The Orange County DAMP defined: (1) a management structure for the permittees' compliance effort; (2) a formal agreement to underpin cooperation; and (3) a detailed municipal effort to develop, implement, and evaluate various BMPs or control programs in the areas of public agency activities, public information, new development and construction, public works construction, industrial discharger identification, and illicit discharger/connection identification and elimination.

59. In order to meet DAMP requirements and characterize and manage pollutant sources on a local level, the permittees developed LIPs. Each jurisdiction has developed its own LIP and is implementing the LIP to properly manage, reduce and mitigate potential and actual pollution sources within the boundaries of each permittee's jurisdiction.

L. NEW DEVELOPMENT/SIGNIFICANT REDEVELOPMENT – WQMP/LIP/LID

60. A major portion of Orange County is urbanized with residential, commercial and industrial developments. Urban development increases impervious surfaces and storm water runoff volume and velocity and decreases vegetated, pervious surface areas available for infiltration and evapotranspiration of storm water. Increase in runoff volume and velocity can cause scour, erosion (sheet, rill and/or gully), aggradation (raising of a streambed from sediment deposition) and can change fluvial geomorphology, hydrology and aquatic ecosystems. This order includes requirements to address increases in imperviousness and changes in water quality and quantity, including hydrologic conditions of concern.

61. Recent studies have indicated that low impact development[20] (LID) BMPs are effective storm water management tools that minimize adverse impacts on storm water runoff quality and quantity resulting from urban developments. The Southern

[20] Low impact development is an approach to land development (or re-development) that works with nature to manage storm water as close to its source as possible by using structural and non-structural best management practices to reduce environmental impacts.

California Monitoring Coalition (SMC), including the project lead agency, the San Bernardino County Flood Control District, in collaboration with SMC member Southern California Coastal Water Research Project (SCCWRP) and the California Storm Water Quality Association (CASQA), with funding from the State Water Resources Control Board and CASQA, is developing a Low Impact Development Manual for Southern California. A preliminary draft of this manual indicates that effective implementation of site design LID BMPs should occur during the earliest stages of planning such as site assessment, environment review and site planning. This manual will be incorporated into the CASQA BMP Handbooks. The permittees are encouraged to utilize the manual as a resource to implement LID techniques. This order requires the project proponents to first consider preventative and conservation techniques (e.g., preserve and protect natural features to the maximum extent practicable) prior to considering mitigative techniques (structural treatment, such as infiltration systems). The mitigative measures should be prioritized with the highest priority for BMPs that remove storm water pollutants and reduce runoff volume, such as infiltration, then other BMPs, such as harvesting and re-use, evapotranspiration and bio-treatment should be considered. These LID BMPs must be implemented at the project site in a manner consistent with the maximum extent practicable standard. Where LID BMPs are not feasible at the project site, more traditional, but equally effective control measures should be implemented.

62. The USEPA has determined that LID/green infrastructure can be a cost-effective and environmentally preferable approach for the control of storm water pollution and will minimize downstream impacts by limiting the effective impervious area of development. LID and the reduction of impervious areas may achieve multiple environmental and economic benefits in addition to reducing downstream water quality impacts, such as enhanced water supplies, cleaner air, reduced urban temperatures, increased energy efficiency and other community benefits, such as aesthetics, recreation, and wildlife areas. USEPA has reviewed studies[21] that have evaluated the percent EIA[22] concept (also see the SCCWRP study[23]). The limited study conducted by Dr. Richard Horner[24] concluded that a 3% EIA standard for development is feasible in Ventura County. EPA believes that EIA is a reasonable metric for incorporating LID principles into storm water permits and EPA supports

[21] See for example the analysis prepared by Dr. Richard Horner entitled, "Investigation of the Feasibility and Benefits of Low-Impact Site Design Practices ("LID") for Ventura County" submitted to the Los Angeles Regional Board by NRDC.

[22] EIA=effective impervious area. These are areas where little or no infiltration of storm water occur, such as paved areas.

[23] Studies conducted by Southern California Coastal Water Research Project (SCCWRP) and others indicate that environmental impacts from developments could be minimized by limiting the effective impervious area.

[24] Dr. Richard Horner, Investigation of the Feasibility and Benefits of Low-Impact Site Design Practices ("LID") for Ventura County, Development (undated).

other equally effective metrics for compliance determination. A review of the analysis of the LID metrics in storm water permitting[25] and its critique[26] indicates that there are certain shortcomings in specifying a percentage EIA as a metric. A series of stakeholder meetings[27] conducted after issuance of the first draft of this order concluded that other equally effective metrics could be used to quantify implementation of LID. It was generally agreed by the stakeholders that a numeric metric, such as a metric based on a specified volume capture may be an equally effective metric. A 5% EIA metric was included in the first draft of this order. The second draft replaces the 5% EIA metric with a volume capture metric based on the design volume specified in the WQMP.

63. On October 5, 2000, the State Board adopted Order No. WQ-2000-11, which is a precedential order. Order No. WQ-2000-11 required that urban runoff generated by 85th percentile storm events from specific types of development categories should be infiltrated, filtered or treated. The essential elements of this precedential order were incorporated into the Region 8 Orange County third term permit. In accordance with the requirements specified in the third term permit, the permittees developed a model Water Quality Management Plan (WQMP) by amending their Drainage Area Management Plan (DAMP). The model WQMP provides a framework to incorporate watershed protection principles into the permittees planning, construction and post-construction phases of defined new and redevelopment projects. The model WQMP includes site design, source control and treatment control elements to reduce the discharge of pollutants in urban runoff. On September 26, 2003, the Regional Board approved the model WQMP. The permittees have incorporated provisions of the model WQMP into their LIPs. The permittees are requiring new developments and significant redevelopments to develop and implement appropriate project WQMPs. This order requires continued implementation of structural and non-structural BMPs for new developments and significant redevelopments as per the approved model WQMP, and the priority project threshold for commercial/industrial developments has been changed to 10,000 square feet, making it consistent with the threshold for residential subdivisions. However, with the implementation of LID techniques, some of the structural treatment control BMPs may not be necessary. The project WQMPs are required to include a discussion on how LID principles are incorporated into the project. Section 7.II-3.2.4 of the WQMP requires identification of hydrologic conditions of concern (HCOC). An HCOC exists when a site's hydrologic regime is

[25] Low Impact Development Metrics in Stormwater Permitting, Prepared for the Ventura Countywide Stormwater Quality Management Program and the Orange County Stormwater Program by Geosyntec Consultants and Larry Walker Associates with Assistance from Hawks and Associates (January 2009).

[26] Critique of Certain Elements of "Low Impact Development Metrics in Stormwater Permitting" by Dr. Richard Horner (undated, submitted by NRDC on February 13, 2009).

[27] The stakeholder group included representatives from Permittees, NRDC, Orange County Coastkeeper, BIA/CICWQ, The Irvine Company, Regional Board staff, USEPA and a number of consultants and attorneys.

altered and there are significant impacts on downstream channels and aquatic habitats, alone or in conjunction with impacts of other projects. Currently, new development and significant re-development projects are required to perform this assessment and incorporate appropriate BMPs to ensure existing hydrologic conditions are maintained. Certain jurisdictions have employed HCOC mapping efforts to assist developers in identifying areas where HCOC conditions exist. Within six months of adoption of this order, the permittees are required to conduct an HCOC mapping to identify HCOC areas in the permitted area.

64. The Region 8 Orange County third term permit required the permittees to review their planning (CEQA, General Plan, etc.) and approval processes to determine the need to revise those processes to address appropriate storm water protection principles. The model WQMP provides a framework for addressing these issues. However, Regional Board staff's audit of the permittees MS4 program indicated that all the permittees had not fully implemented the program. This order requires the permittees to reevaluate and to revise the current program implementation processes. Pollution prevention techniques, appropriate planning processes and early identification of potential storm water impacts and mitigation measures can significantly reduce storm water pollution problems. The permittees shall consider these impacts and appropriate mitigation measures during the planning and approval processes.

65. The intent of the WQMP, SWPPP and other programs and policies incorporated into this order is to minimize the impact from the project on water quality and the environment. However, compliance with this order and the DAMP does not necessarily constitute mitigation that is sufficiently specific to satisfy the requirements of CEQA with regards to projects.

66. Treatment control BMPs include vortex systems, catch basin inserts, detention basins, infiltrations areas (including LID-based), retention basins, regional treatment systems, constructed wetlands, various types of storm water filters, etc. If not properly designed and managed, these systems could be sources of pollutants and could become a nuisance and/or cause the spreading of surface water pollution, and those treatment systems with a hydraulic connection to groundwater (e.g., detention basins, infiltration systems, constructed wetlands, etc.) could be sources of groundwater pollution. Restrictions placed on urban runoff infiltration in this order (Section XII.B.5.) are based on recommendations provided by the U.S. EPA Risk Reduction Laboratory. The requirements specified in this order include identification of responsible agencies for maintaining the systems and for providing funding for operation and maintenance.

67. If not properly designed and maintained, the BMPs identified in Finding 66 could create a nuisance and/or habitat for vectors[28] (e.g., mosquitoes and rodents). Third term permit required the permittees to closely collaborate with the Orange County

[28] Managing Mosquitoes in Stormwater Treatment Devices, Marco E. Metzger, University of California Davis, Division of Agriculture and Natural Resources, Publication 8125.

Vector Control District during the development and implementation of such treatment systems. The permittees should continue these collaborative efforts with the Vector Control District to ensure that treatment control systems do not become a nuisance or a potential source of pollutants. There are other site conditions that limit the applicability of infiltration, including site soils, contaminant plumes, potential mobilization of naturally occurring contaminants such as selenium, high groundwater levels, etc. Such factors should be considered in the design and implementation of storm water control measures.

M. NON-STORM WATER/DE-MINIMUS DISCHARGES

68. The MS4s generally contain non-storm water flows such as irrigation runoff, runoff from non-commercial car washes, runoff from miscellaneous washing and cleaning operations, and other nuisance flows generally referred to as de-minimus discharges. Federal regulations, 40 CFR Part 122.26(d)(2)(i)(B), prohibit the discharge of non-storm water containing pollutants into the MS4s and to waters of the U.S. unless they are regulated under a separate NPDES permit, or are exempt, as indicated in Discharge Prohibitions, Section III.3 of this order. The Regional Board adopted a number of NPDES permits[29] to address de-minimus type of pollutant discharges. However, the permittees need not get coverage under the de-minimus permits for the types of discharges listed under Section III.3, except for discharges to the Newport Bay watershed (where coverage under the Newport Bay watershed-specific de-minimus permit is required, see Finding 69), as long as they are in compliance with the conditions specified under Section III of this order.

69. Many areas of the San Diego Creek/Newport Bay watershed have high nitrate and/or selenium levels in the soils and/or groundwater. Dewatering operations, construction activities and agricultural and other operations could mobilize these pollutants and carry them into San Diego Creek and Newport Bay. The Regional Board has adopted a General Permit, Order No. R8-2007-0041, to regulate dewatering wastes into the San Diego Creek/Newport Bay watershed. In addition, stakeholders in the watershed are in the process of developing a comprehensive nitrogen/selenium management plan to address the nitrogen/selenium issues.

N. PERMIT REQUIREMENTS AND NUMERIC EFFLUENT LIMITS

70. The first term permit required the permittees to: (1) develop and implement the DAMP and a storm water and receiving water monitoring plan; (2) eliminate illicit discharges[30] to the MS4s; and (3) enact the necessary legal authority to effectively

[29] E.g., R8-2003-0061,as amended by R8-2004-0021.

[30] Illicit Discharge means any discharge to the municipal separate storm system that is prohibited under local, state, or federal statutes, ordinances, codes, or regulations. The term illicit discharge includes all discharges that contain non storm-water discharges except discharges pursuant to an NPDES permit, discharges that are identified in Section III, Discharge Limitations/Prohibitions, of this order, and discharges authorized by the Regional Board Executive Officer.

prohibit such discharges. The overall goal of these requirements was to reduce pollutant loadings to surface waters from urban runoff to the MEP. The second term permit required continued implementation of the DAMP and the monitoring plan, and required the permittees to focus on those areas that threaten beneficial uses. The third term permit required the permittees to inspect construction sites and industrial and commercial facilities. The permittees were also required to develop and implement a model WQMP to address runoff from new development and significant redevelopment projects. The principal permittee, in co-operation with the co-permittees, developed administrative strategies and implementation procedures for each program element. Each permittee incorporated these tools into its LIP. The permittees are required to continue to implement each of these program elements and to aggressively pursue implementation of LID techniques during the fourth term permit. As required under the third term permit, the principal permittee, in collaboration with the co-permittees, evaluated the effectiveness of the overall program during the permit term. The permittees, in consultation with Regional Board staff, evaluated each program element and proposed new and improved program commitments in their 2006 Report of Waste Discharge. Regional Board staff audited each of the permittee programs during the third term permit and determined that some of the permittees had significant violations with respect to implementation of certain program elements. Enforcement actions were taken to bring these permittees into compliance. The permittees were required to address problems identified during the audit. Some of the permittees were to amend their LIPs to address deficiencies noted during the audit.

71. Based on the results of the audits performed during the 3rd term permit, a number of permit requirements have been incorporated into the current permit. While the 2001 DAMP listed criteria by which co-permittees were to assess the priority ranking of commercial sites, a number of co-permittees had interpreted those criteria in such a manner as to ensure that only a very small number of sites would be ranked 'High' and in some cases, all commercial sites within a municipality were ranked 'Low,' resulting in the least number of inspections possible. To address this situation, commercial site ranking now requires that a minimum 10% of the sites with the highest potential for pollutant discharge, be ranked 'High' and next 40% of highest potential sites be ranked 'Medium,' for inspection purposes.

72. The Report of Waste Discharge proposes to enhance implementation of various program elements through the development of performance indicators and auditable systems, and by focusing on addressing problems on a watershed-specific basis. To improve program management efficiencies, the permittees are proposing to define expertise and competencies for program managers and inspectors, and to develop and implement an effective training program for them. The principal permittee in collaboration with the co-permittees is required to develop guidelines for defining the expertise and competencies for various positions and training programs and schedules for training for these positions. In the event that co-permittees want to design their own training program, it should be prepared in collaboration with the principal permittee, and at a minimum, should contain all information present in the principal permittee-prepared training program. The permittees are required to document procedures used to determine the defined

competencies for each storm water position (this may be accomplished through a test at the end of the training program or through an on-the-job testing procedure).

73. This order includes wasteload allocations for those constituents for which either the U.S. EPA has promulgated or the Regional Board has established TMDLs. Federal regulations (40 CFR 122.44(d)(vii)(B)) require that the Permits be consistent with the applicable wasteload allocations in the TMDLs. Consistent with the federal storm water laws and regulations, the order does not include numeric effluent limits for other potential pollutants. Federal Clean Water Act requires the permittees to have appropriate controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and systems, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants (33 USC 1342(p)(3)(B)). MEP is a dynamic performance standard and it evolves as our knowledge of urban runoff control measures increases.

74. On June 17, 1999, the State Board adopted Water Quality Order No. 99-05. This is a precedential order that incorporates the receiving water limitations language recommended by the USEPA. Consistent with the State Board's order, this order requires the permittees to comply with the applicable water quality standards, which is to be achieved through an iterative approach requiring the implementation of increasingly more effective BMPs. This approach is consistent with most of the municipal storm water permits issued in California that specify certain minimum control measures and incorporate an iterative process that requires increasingly more effective control measures if the water quality objectives are not met.

O. MUNICIPAL FACILITIES AND ACTIVITIES

75. The permittees own and operate MS4s and appurtenances, build and maintain roads and other transportation facilities, sanitary waste collection and conveyance systems, recreational facilities such as parks, hiking trails, etc., and other infrastructures of the urban environment. This order requires the permittees to consider water quality impacts during the planning stages of these projects, during construction and post-construction use, and during operation and maintenance of these facilities. This order includes requirements for the control of trash and debris, for street sweeping, and for drainage facilities maintenance. The permittees have already installed eleven trash and debris booms in flood control channels and harbors to recover floatable material. The permittees have promoted a number of public awareness and volunteer cleanup programs. The Orange County Integrated Waste Management Board administers the household hazardous waste collection program. Most of the permittees, in collaboration with the Orange County Health Care Agency, implement the oil recycling program.

76. The permittees own and/or operate facilities where industrial or related activities take place that may have an impact on storm water quality. Some of the permittees also enter into contracts with outside parties to carry out municipal related activities that may also have an impact on storm water quality. The permittees have developed and are implementing a Model Municipal Activities Program that

established a framework for conducting a systematic program of evaluation and BMP implementation for fixed facilities, field operations and drainage facilities. Non-storm water discharges from these facilities and/or activities could also affect water quality. This order prohibits non-storm water discharges from public facilities, unless the discharges are exempt under Section III, Discharge Limitations, of this order, or are permitted by the Regional Board under an individual NPDES permit or the de-minimus permits.

77. Successful implementation of the provisions and limitations in this order will require the cooperation of public agency organizations within Orange County having programs/activities that have an impact on storm water quality. A list of these organizations is included in Attachment C. As such, these organizations should actively participate in implementing the Orange County NPDES Storm Water Program. The Regional Board has the discretion and authority to require certain non-cooperating entities to participate in this areawide permit or obtain individual storm water discharge permits, pursuant to 40 CFR 122.26(a). The permittees have developed a Storm Water Implementation Agreement among the County, the cities and the Orange County Flood Control District. The Implementation Agreement establishes the responsibilities of each party, a funding mechanism for the shared costs, and recognizes the Technical Advisory Committee (TAC).

78. The permittees have developed and implemented programs and policies to address fixed facilities, fertilizer and pesticide use, employee training, storm drain inspection and maintenance activities, and other related planning, inspection and maintenance programs. This order requires the permittees to continue these programs and propose any needed changes to these programs.

79. Some of the permittees own and operate sewage collection systems. Sanitary sewer overflows (SSOs) have been a significant source of water quality impairments and beach closures in Orange County. On May 2, 2006, the State Board adopted Water Quality Order No. 2006-0003 to provide a consistent statewide regulatory approach to address SSOs. In addition, the principal permittee, in collaboration with the Orange County Sanitation District and a number of the co-permittees, has developed the Countywide Area Spill Control Program to address SSOs in certain areas of Orange County. These two programs are expected to address issues related to SSOs.

P. PUBLIC EDUCATION/PARTICIPATION

80. Urban runoff contains pollutants from privately owned and operated facilities, such as residences, businesses, private and/or public institutions, and commercial establishments. Therefore, a successful storm water management plan should include the participation and cooperation of the public, businesses, the permittees and the regulators. The DAMP has a strong emphasis on public education. Public education includes education of the public at large, commercial establishments, industrial facilities and developers. It also includes proper training for municipal planning, inspection and maintenance activities. The permittees have developed

inter-departmental training programs and have made commitments to conduct a certain number of these training programs during the term of this permit.

81. Public education is an important part of storm water pollution prevention. The permittees have employed a variety of means to educate the public, business and commercial establishments, industrial facilities and construction sites, and in 1999 developed a long term public education strategy. In 2002, the permittees created a public and business outreach strategy and developed the "Orange County Stormwater Public Education Program Recommendations." This strategy was updated in 2004 and established a long-term cost-effective approach to educate the public and targeted businesses about the effects of storm water pollution and encourages their participation in protecting water quality. In accordance with this strategy the permittees conducted a public awareness survey and translated relevant public education materials into Spanish and Vietnamese. The permittees employed a variety of media, including newspapers, radio, television, movie theaters, advertisements on public transportation vehicles, schools and printed brochures to provide information regarding storm water pollution and the public's role in controlling it. In addition to the multi-media approach, the permittees have started to work with business establishments such as Home Depot and PetsMart, utilities such as Waste Management and Southern California Edison, organizations such as Chamber of Commerce and Welcome Express, and a number of other organizations and establishments. The permittees also established a countywide 24-hour, bilingual, hotline for reporting illegal activities that could impact water quality. This order requires implementation of LID techniques. If not properly designed and maintained, some of the LID BMPs could provide breeding areas for vectors. Public education and outreach materials should include a discussion on the association between disease vectors, urban runoff, storm water treatment control and LID BMPs.

82. The storm water regulations require public participation in the development and implementation of the storm water management program. As such, the permittees are required to solicit and consider all comments received from the public and submit copies of the comments to the Executive Officer of the Regional Board with the annual reports due on November 15 of each year. It is expected that the permittees would include comments received on any significant revisions to the Monitoring Plan, LIPs and WQMPs. In response to public comments, the permittees may modify reports, plans, or schedules prior to submittal to the Executive Officer.

Q. MONITORING AND REPORTING PROGRAM AND EFFECTIVENESS ASSESSMENT

83. In order to characterize storm water discharges, to identify problem areas, to determine the impact of urban runoff on receiving waters, and to determine the effectiveness of the various BMPs, an effective monitoring program is critical. The principal permittee administers the monitoring program for the permittees. During the previous permit term, the permittees completed the 99-04 Monitoring Plan. This plan included storm water monitoring, receiving water monitoring, dry weather

monitoring and sediment monitoring in previously identified critical aquatic resources areas, as well as, mass emissions monitoring of both wet and dry season flows. On July 1, 2003, the permittees submitted the Third Term Monitoring Plan. This plan was approved by the Executive Officer on July 15, 2005. Monitoring under this plan was expanded to cover monitoring requirements for the development and implementation of TMDLs for impaired waters in Orange County. The Monitoring Plan approved in 2005, included mass emissions monitoring, estuary/wetlands monitoring, bacteriological/pathogen monitoring, bioassessment monitoring, illicit discharge reconnaissance monitoring, and land use correlations. Three different approaches were used for these monitoring programs: core monitoring, regional monitoring, and special studies. The permittees are required to review the monitoring program on an annual basis to determine the need for any revisions. The monitoring program may have to be revised to meet TMDL and ASBS monitoring requirements and/or to make the program consistent with any statewide or regional monitoring guidance developed either by the State Board or the Stormwater Monitoring Coalition.

R. ILLICIT DISCHARGES, ILLICIT CONNECTIONS AND LEGAL AUTHORITY

84. Illicit discharges to the storm drains can contribute to storm water and surface water contamination. A reconnaissance survey of the municipal storm drain systems (open channels and underground storm drains) was completed by the permittees during the third term permit, the permittees significantly enhanced the programmatic framework for detecting and quickly controlling discharges into the MS4s. The permittees have initiated a dry weather monitoring program that is based on statistically derived benchmarks to detect illicit discharges and illicit connections. The program also facilitates public reporting of illicit discharges by providing 24-hour access to a toll free hotline. The program has a number of mechanisms in place to identify and eliminate illicit discharges to the MS4s, including: construction, commercial and industrial facility inspections, drainage facility inspections, water quality monitoring programs, and public education including a 24-hour hotline. The permittees developed a ten module training program for training municipal staff to identify and eliminate illicit discharges to the MS4s and to take appropriate enforcement actions.

85. In order to insure countywide consistency and to provide a legal underpinning to the entire Orange County storm water program, a model water quality ordinance was completed on August 15, 1994 and has been adopted by all the permittees. A countywide Enforcement Consistency Guide was established by the permittees in 1995. These documents establish legal authority for enforcing storm water ordinances and countywide uniformity in the enforcement actions. The permittees have the authority to control pollutants into the MS4s, to prohibit illicit connections and illicit discharges, to control spills, to require compliance with local water quality ordinances and to carry out inspections of the storm drain systems within their jurisdictions.

86. During the third term permit, the principal permittees in collaboration with the Orange County Sanitation District developed and implemented a coordinated sewage spill prevention and response demonstration project. This program is being evaluated for implementation throughout the Orange County Sanitation District's service area.

87. There may be discharges that are not within the permittees jurisdiction. The permittees may petition the Regional Board to issue a separate NPDES permit to any discharger of non-storm water into storm drain systems that they own or operate.

S. COMPLIANCE WITH CZARA, CEQA AND THE ANTI-DEGRADATION POLICY

88. The Coastal Zone Act Reauthorization Amendments of 1990 (CZARA), Section 6217(g), requires coastal states with approved coastal zone management programs to address non-point source pollution impacting or threatening coastal water quality. CZARA addresses five sources of non-point pollution: agriculture, silviculture, urban, marinas, and hydromodification. This order addresses the management measures required for the urban category, with the exception of septic systems. Compliance with requirements specified in this order relieves the permittees for developing a non-point source plan, for the urban category, under CZARA. The Regional Board addresses septic systems through the administration other programs.

89. In accordance with California Water Code Section 13389, the issuance of waste discharge requirements for this discharge is exempt from those provisions of the California Environmental Quality Act contained in Chapter 3 (commencing with Section 21100), Division 13 of the Public Resources Code.

90. The permitted discharge is consistent with the anti-degradation provisions of 40 CFR 131.12 and the State Board Resolution 68-16. This order requires implementation of programs (i.e., BMPs) to reduce the level of pollutants in the storm water discharges. The combination of programs and policies required to be implemented under this order for new and existing developments are designed to improve urban storm water quality.

T. PUBLIC COMMENTS AND PUBLIC HEARING

91. The Regional Board has notified the permittees and interested parties of its intent to issue waste discharge requirements for this discharge and has provided them with an opportunity to submit their written views and recommendations.

92. The Regional Board, in a public hearing, heard and considered all comments pertaining to the discharge and to the tentative requirements.

PERMIT REQUIREMENTS:

IT IS HEREBY ORDERED that the permittees, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act, as amended, and regulations and guidelines adopted thereunder, shall comply with the following:

I. RESPONSIBILITIES OF PRINCIPAL PERMITTEE

A. The principal permittee shall be responsible for the overall program management and shall:

1. Conduct chemical and biological water quality monitoring, as required by this order and any additional monitoring as directed by the Executive Officer.
2. Conduct inspections and maintain the storm drain systems within its jurisdiction.
3. Review and revise, if necessary, policies/ordinances necessary to establish legal authority as required by the Federal Storm Water Regulations.
4. Respond and/or arrange for responding to emergency situations, such as accidental spills, leaks, illicit discharges and illicit connections, etc., to prevent or reduce the discharge of pollutants to storm drain systems and waters of the US within its jurisdiction.
5. Take appropriate enforcement actions for illicit discharges to the MS4 systems owned or controlled by the principal permittee.
6. Prepare and submit to the Executive Officer of the Regional Board unified reports, plans, and programs as required by this order, including the annual report.

B. The activities of the principal permittee shall include, but not be limited to, the following:

1. Coordinate and conduct Management Committee meetings on an as needed basis. The principal permittee will take the lead role in initiating and developing areawide programs and activities necessary to comply with this order.
2. Coordinate permit activities and participate in any subcommittees formed as necessary to coordinate compliance activities with this order.
3. Provide technical and administrative support and inform the co-permittees of the progress of other pertinent municipal programs, pilot projects, research studies, etc.
4. Coordinate the implementation of areawide storm water quality management activities such as public education, pollution prevention, household hazardous waste collection, etc.
5. Develop and implement mechanisms, performance standards, etc., to promote uniform and consistent implementation of BMPs among the permittees.
6. Pursue enforcement actions as necessary within its jurisdiction to ensure compliance with storm water management programs, ordinances and implementation plans, including physical elimination of undocumented connections and illicit discharges.

7. In conjunction with the other permittees, implement the BMPs listed in the DAMP, and take such other actions as may be necessary to meet the MEP standard.
8. Monitor the implementation of the plans and programs required by this order and determine their effectiveness in protecting beneficial uses.
9. Coordinate all the activities with the Regional Board, including the submittal of all reports, plans, and programs, as required under this order.
10. Obtain public input for any proposed management and implementation plans, such as Monitoring Plans, Local Implementation Plans and significant changes to Water Quality Management Plans.
11. Cooperate in watershed management programs and regional and/or statewide monitoring programs.
12. In collaboration with the co-permittees, develop guidelines for defining expertise and competencies of storm water program managers and inspectors and develop and submit for approval a training program for various positions in accordance with these guidelines.

II. RESPONSIBILITIES OF THE CO-PERMITTEES

A. The co-permittees shall be responsible for the management of storm drain systems within their jurisdictions and shall:

1. Implement management programs, monitoring programs, implementation plans and all BMPs outlined in the DAMP/LIP within each respective jurisdiction, and take any other actions as may be necessary to meet the MEP standard.
2. Coordinate among their internal departments and agencies, as appropriate, to facilitate the implementation of this order and the DAMP/LIP.
3. Establish and maintain adequate legal authority, as required by the Federal Storm Water Regulations.
4. Conduct storm drain system inspections and maintenance in accordance with the criteria developed by the principal permittee.
5. Take appropriate enforcement actions for illicit discharges to the MS4 systems owned or controlled by the co-permittee.

B. The co-permittees' activities shall include, but not be limited to, the following:

1. Participate in the Management Committee comprised of the principal permittee and one representative of each co-permittee. The principal permittee will take the lead role in initiating and developing areawide programs and activities necessary to comply with this order. The Committee will meet on a regular basis (at least six times per year). Each permittee shall designate one official representative to the Management Committee and attend at least 75% of the meetings each calendar year.

2. Review, approve, implement, and comment on all plans, strategies, management programs, and monitoring programs, as developed by the principal permittee or any permittee subcommittee to comply with this order.
3. Pursue enforcement actions as necessary to ensure compliance with the storm water management programs, ordinances and implementation plans, including physical elimination of undocumented connections and illicit discharges to drainage systems owned or controlled by the co-permittees.
4. Conduct and coordinate with the principal permittee any surveys and characterizations needed to identify pollutant sources and drainage areas.
5. Submit storm drain system maps, including any periodic revisions, with each annual report.
6. Respond to emergency situations, such as accidental spills, leaks, illicit discharges, illicit connections, etc., to prevent or reduce the discharge of pollutants to storm drain systems and waters of the US.
7. Prepare and submit all required reports to the principal permittee in a timely manner.

III. DISCHARGE LIMITATIONS/PROHIBITIONS

1. In accordance with the requirements of 40 CFR 122.26(d)(2)(i)(B) and 40 CFR 122.26(d)(2)(i)(F), the permittees shall prohibit illicit/illegal discharges (non-storm water) from entering into the municipal separate storm sewer systems unless such discharges are either authorized by a NPDES permit, or not prohibited in accordance with Section III.3, below.
2. The discharge of storm water from the MS4s to waters of the US containing pollutants that have not been reduced to the maximum extent practicable is prohibited.
3. The permittees shall effectively prohibit the discharge of non-storm water into the MS4s, unless such discharges are authorized by a separate NPDES permit or as otherwise specified in this provision. For purposes of this order, a discharge may include storm water or other types of discharges identified below.
    i. The discharges identified below need not be prohibited by the permittees unless such discharges are identified either by the permittees or by the Executive Officer as a significant source of pollutants. The DAMP shall include public education and outreach activities directed at reducing these discharges even if they are not substantial contributors of pollutants to the MS4s.
        a) Discharges composed entirely of storm water;
        b) Air conditioning condensate;
        c) Irrigation water;
        d) Passive foundation drains;
        e) Passive footing drains;

f) Water from crawl space pumps;

g) Non-commercial vehicle washing;

h) Dechlorinated swimming pool discharges (Cleaning wastewater and filter backwash shall not be discharged to the MS4).

i) Diverted stream flows;

j) Rising ground waters and natural springs;

k) Ground water infiltration as defined in 40 CFR 35.2005 (20) and uncontaminated pumped groundwater;

l) Flows from riparian habitats and wetlands;

m) Emergency fire fighting flows (i.e., flows necessary for the protection of life and property) do not require BMPs and need not be prohibited. However, where possible, when not interfering with health and safety issues, BMPs should be implemented (also see Section XXI, Provision 5);

n) Waters not otherwise containing wastes as defined in California Water Code Section 13050 (d); and

o) Other types of discharges identified and recommended by the permittees and approved by the Regional Board.

ii. The permittees shall prohibit the following categories of non-storm water discharges from permittee owned and/or operated facilities and activities unless the stated conditions are met:

a) For discharges outside the Newport Bay watershed the de minimus types of discharges listed in the Regional Board's General De Minimus Permit for Discharges to Surface Waters, Order No. R8-2009-0003, NPDES No. CAG 998001 (General De Minimus Permit), shall be in compliance with the terms and conditions of the General De Minimus Permit. Separate coverage under the General De Minimus Permit is not required. For discharges within the Newport Bay watershed, separate permit authorization for these de minimus discharges will be required when the discharges contain selenium, nitrogen or other pollutants at levels of concern.

b) Discharges from potable water sources, including water line flushing, superchlorinated water line flushing, fire hydrant system flushing, and pipeline hydrostatic test water: Planned discharges shall be dechlorinated to a concentration of 0.1 ppm[31] or less, pH adjusted if necessary, and volumetrically and velocity controlled to prevent causing hydrologic conditions of concern in receiving waters.

[31] Total residual chlorine = 0.1 mg/l or parts per million (ppm) or less; compliance determination shall be at a point before the discharge mixes with any receiving water.

c) Discharges from lawn, greenbelt and median watering and other irrigation runoff from non-agricultural operations[32]: These discharges shall be minimized through a Model Municipal Activity Maintenance Program designed to control irrigation runoff.

d) Dechlorinated swimming pool discharges: Dechlorinated to a concentration of 0.1 ppm[33] or less, pH adjusted and reoxygenated if necessary, and volumetrically and velocity controlled to prevent causing hydrologic conditions of concern in receiving waters. Swimming pool cleaning wastewater and filter backwash shall not be discharged to the MS4s.

e) Construction dewatering wastes: The maximum daily concentration limit for total suspended solids shall not exceed 75mg/l, sulfides 0.4mg/l, oil and grease15mg/l, total petroleum hydrocarbons 0.1mg/l.

f) Discharges from facilities that extract, treat and discharge water diverted from waters of the US: These discharges shall meet the following conditions: (1) The discharges to waters of the US must not contain pollutants added by the treatment process or pollutants in greater concentration than the influent; (2) The discharge must not cause or contribute to a condition of erosion; (3) The extraction and treatment must be in compliance with Section 404 of the Clean Water Act; and (4) Conduct monitoring in accordance with Monitoring and Reporting Program attached to this order.

The Regional Board may add categories of non-storm water discharges that are not significant sources of pollutants or remove categories of non-storm water discharges listed above based upon a finding that the discharges are a significant source of pollutants.

4. Non-storm water discharges from public agency activities into waters of the US are prohibited unless the non-storm water discharges are permitted by an NPDES permit or are included in Section III.3.

5. The permittees shall reduce the discharge of pollutants, including trash and debris, from the storm water conveyance systems to the maximum extent practicable (also see Section VII).

6. Discharges from the MS4s shall be in compliance with the applicable discharge prohibitions contained in Chapter 5 of the Basin Plan.

7. Discharges from the MS4s of storm water or non-storm water, as defined in Section III.3, shall not cause or contribute to a condition of pollution, contamination or nuisance, as those terms are defined in Section 13050 of the Water Code.

[32] Non-agricultural irrigation using recycled water must comply with the statewide permit for Landscape Irrigation Using Recycled Water and the State Department Health guidelines.

[33] See previous footnote.

8. All discharges to Areas of Special Biological Significance shall be consistent with the Special Protections/Exceptions granted by the State Board, or waste discharges shall be prohibited in accordance with the Ocean Plan.

IV. RECEIVING WATER LIMITATIONS

1. Discharges from the MS4s shall not cause or contribute to exceedances of receiving water quality standards (designated beneficial uses and water quality objectives) for surface waters or groundwaters.
2. The DAMP and its components shall be designed to achieve compliance with receiving water limitations. It is expected that compliance with receiving water limitations will be achieved through an iterative process and the application of increasingly more effective BMPs. The permittees shall comply with Sections III.2 and IV.1 of this order through timely implementation of control measures and other actions to reduce pollutants in urban runoff in accordance with the DAMP and other requirements of this order, including any modifications thereto.
3. If exceedance of water quality standards persist, notwithstanding implementation of the DAMP and other requirements of this order, the permittees shall assure compliance with Sections III.2 and IV.1 of this order by complying with the following procedure:

   a) Upon a determination by either the permittees or the Executive Officer that the discharges from the MS4 systems are causing or contributing to an exceedance of an applicable water quality standard, the permittees shall promptly notify and thereafter submit a report to the Executive Officer that describes BMPs that are currently being implemented and additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance of water quality standards. The report may be incorporated in the annual update to the DAMP, unless the Executive Officer directs an earlier submittal. The report shall include an implementation schedule. The Executive Officer may require modifications to the report;

   b) Submit any modifications to the report required by the Executive Officer within 30 days of notification;

   c) Within 30 days following approval by the Executive Officer of the report described above, the permittees shall revise the DAMP and monitoring program to incorporate the approved modified BMPs that have been and will be implemented, the implementation schedule, and any additional monitoring required; and,

   d) Implement the revised DAMP and monitoring program in accordance with the approved schedule.

   So long as the permittees have complied with the procedures set forth above and are implementing the revised DAMP, the permittees do not have to repeat the same procedure for continuing or recurring exceedances of the same receiving water

limitations unless the Executive Officer determines it is necessary to develop additional BMPs.

4. Nothing in Section IV.3 must prevent the Regional Board from enforcing any provision of this order while the permittee prepares and implements the above programs.

V. IMPLEMENTATION AGREEMENT

1. Within 6 months of adoption of this order, the existing Implementation Agreement shall be reviewed and revised, if necessary, to include any cities that were not signatories to this agreement. A copy of the signature page and any revisions to the Agreement shall be included in the annual report.
2. Within 6 months of adoption of this order and annually thereafter, the permittees shall evaluate the storm water management structure and the Implementation Agreement and determine the need for any revisions. The corresponding annual report shall include the findings of this review and a schedule for any needed revisions.

VI. LEGAL AUTHORITY/ENFORCEMENT

1. The permittees shall maintain adequate legal authority to control the discharge of pollutants to the MS4s from urban runoff and enforce those authorities. This may be accomplished through ordinance, statute, permit, contract or similar means. Such legal authority must address all illicit connections and illicit discharges into the MS4s, including those from all industrial and construction sites. The permittees may use the Enforcement Consistency Guide or develop its own enforcement program and shall incorporate the enforcement program into their Local Implementation Plan.

2. The permittees shall carry out inspections, surveillance, and monitoring necessary to determine compliance with their ordinances and permits. The Permittees' ordinance must include adequate legal authority, to the extent permitted by California and Federal Law and subject to the limitations on municipal action under the constitutions of California and the United States, to enter, inspect and gather evidence (pictures, videos, samples, documents, etc.) from industrial, construction and commercial establishments. The permittees shall progressively and decisively take enforcement actions against any violators of their Water Quality Ordinance. These enforcement actions must, at a minimum, meet the guidelines and procedures listed in the Enforcement Consistency Guide.
3. Permittees' ordinances or other local regulatory mechanisms shall include sanctions and follow up inspection milestones to ensure compliance. Sanctions shall include, but are not limited to: monetary penalties, non-monetary penalties, bonding requirements, and/or permit denials/revocations/stays for non-compliance. Follow up inspection milestones shall be consistent with applicable sections of this order. Permittees' ordinances shall have a provision for civil or criminal penalties for violations of their water quality ordinances. These penalties shall be issued in a

decisive manner within a predetermined timeframe, from the time of the violation's occurrence and/or respective follow-up inspection.

4. Within one year of the adoption of this order, each permittee shall submit a statement, signed by legal counsel, that the permittee has obtained all necessary legal authority in accordance with 40 CFR 122.26(d)(2)(i)(A-F) and to comply with this order through adoption of ordinances and/or municipal code modifications.

5. If necessary, the permittees shall revise their LIPs to include citations of appropriate local ordinances, identification of departmental jurisdictions in the implementation and enforcement of these ordinances, and key personnel. The LIP shall include procedures and timeframes for progressive enforcement actions.

6. The permittees shall continue to provide notification to Regional Board staff regarding storm water related information gathered during site inspections of industrial and construction sites regulated by the Statewide General Storm Water Permits and at sites that should be regulated under those Statewide General Permits. The notification shall be provided on a quarterly basis[34] and shall include any observed violations, or threat of potential violations of the General Permits (e.g., problematic housekeeping issues) prior history of violations, any enforcement actions taken by the permittee, and any other relevant information. (Also see notification requirements under Sections VIII, IX, and X of this Order.)

7. The permittees shall annually review their water quality ordinances and provide findings within the annual report each year on the effectiveness of these ordinances and associated enforcement programs, in prohibiting the following types of discharges to the MS4s (the permittees may propose appropriate control measures in lieu of prohibiting these discharges, where the permittees are responsible for ensuring that dischargers adequately maintain those control measures):

   a) Sewage (also prohibited under the Statewide SSO order[35]);

   b) Wash water resulting from the hosing or cleaning of gas stations, auto repair garages, and other types of automobile service stations;

   c) Discharges resulting from the cleaning, repair, or maintenance of any type of equipment, machinery, or facility, including motor vehicles, concrete mixing equipment, portable toilet servicing, etc.;

   d) Wash water from mobile auto detailing and washing, steam and pressure cleaning, carpet/upholstery cleaning, pool cleaning and other such mobile commercial and industrial activities;

   e) Water from cleaning of municipal, industrial, and commercial sites, including parking lots, streets, sidewalks, driveways, patios, plazas, work yards and outdoor eating or drinking areas, etc.;

[34] The reporting schedule may be revised with the approval of the Executive Officer.

[35] State Board WQO No. 2006-0003.

f) Runoff from material storage areas or uncovered receptacles that contain chemicals, fuels, grease, oil, or other hazardous materials[36];

g) Discharges of runoff from the washing of toxic materials[37] from paved or unpaved areas;

h) Discharges of pool or fountain water containing chlorine, biocides, or other chemicals; pool filter backwash containing debris and chlorine;

i) Pet waste, yard waste, litter, debris, sediment, etc.; and,

j) Restaurant or food processing facility wastes such as grease, floor mat and trash bin wash water, food waste, etc.

8. The permittees are encouraged to enter into interagency agreements with owners of other MS4 systems, such as Caltrans, school and college districts, universities, Department of Defense, Native American Tribes, etc., to control the contribution of pollutants from one portion of the MS4s to another portion. The Regional Board will continue to notify the owner/operator of the MS4 systems and the local municipality if the Board issues a permit for discharges into the MS4 systems.

VII. ILLICIT DISCHARGES/ILLICIT CONNECTIONS; LITTER, DEBRIS AND TRASH CONTROL

1. The permittees shall continue to prohibit all illicit connections to the MS4s through their ordinances, inspections, monitoring programs, and enforcement actions. The permittees shall conduct inspections for illicit connections and illicit discharges during routine maintenance of all MS4 facilities. If routine inspections or dry weather screening and/or monitoring indicate any illicit connections, they shall be investigated and eliminated or permitted within 120 days of discovery and identification.
2. The permittees shall control the discharge of spills, leaks, or dumping of any materials other than storm water and authorized non-storm water per Section III, above, into the MS4s. All reports of spills, leaks, and/or illegal dumping shall be promptly investigated and reported as specified under Section XVII.
3. Within six months of adoption of this order, the permittees shall evaluate the current Illicit Discharges/Illicit Connections Training Program. If necessary, the program shall be revised to meet the expected expertise and competencies of the municipal inspectors.

[36] Hazardous material is defined as any substance that poses a threat to human health or the environment due to its toxicity, corrosiveness, ignitability, explosive nature or chemical reactivity. These also include materials named by EPA to be reported if a designed quantity of the material is spilled into the waters of the United States or emitted into the environment.

[37] Toxic material is a chemical or a mixture that may present an unreasonable risk of injury to health or the environment.

4. The permittees shall continue to implement appropriate control measures to reduce and/or to eliminate the discharge of trash and debris to waters of the US. These control measures shall be reported in the annual report.
5. By July 1st of each year the permittees shall review their litter/trash control ordinances to determine the need for any revision. At least once during the permit term, the principal permittee shall characterize trash, determine its main source(s) and develop and implement appropriate BMPs to control trash in urban runoff. The findings of this review shall be included in the annual report.
6. The permittees shall determine the need for any additional debris control measures. The findings shall be included in each annual report.
7. The permittees who are regulated under State Board's Water Quality Order No. 2006-0003 shall continue to comply with that order to control sanitary system overflows. The principal permittee shall continue to evaluate the applicability of the "Countywide Area Spill Control Program (CASC)" to all areas within the Santa Ana Regional Board's jurisdiction to control and mitigate sanitary sewer overflows. This evaluation shall be included in the first annual report due after adoption of this order. Within 12 months of adoption of this order, the principal permittee in collaboration with the Orange County Sanitation District, Irvine Ranch Water District and the co-permittees shall implement essential elements of the CASC or other equally effective programs (such as the Statewide SSO order) to control and mitigate sanitary sewer overflows in Orange County areas that are within the Region.

VIII. MUNICIPAL INSPECTIONS OF CONSTRUCTION SITES

1. Each permittee shall ensure that all construction activities within its jurisdiction are consistent with the Model Construction Program developed by the permittees.
2. Each permittee shall continue to maintain and update (at least on a biannual basis, once in September and the second update in May) an inventory of all construction sites within its jurisdiction for which building or grading permits have been issued and where activities at the site include: soil movement; uncovered storage of materials or wastes, such as dirt, sand or fertilizer; or exterior mixing of cementaceous products, such as concrete, mortar or stucco. All construction sites, as described above, shall be included regardless of whether the construction site is subject to the General Construction Permit or other individual NPDES permit. This inventory shall be maintained in the 2002 Spreadsheet developed by the permittees or a similar computer-based database system and shall include relevant information on site ownership, General Construction Permit WDID number (if any), size, location (latitude/longitude [in decimals] or NAD83/WGS84[38] compatible formatting), inspection data, etc.
3. The permittees shall continue to prioritize construction sites within their jurisdictions as a high, medium or low threat to water quality. Evaluation of construction sites

[38] NAD83/WGS84=North American Datum of 1983 and World Geodetic System of 1984 are systems to define three-dimensional coordinates of a single physical point.

shall be based on factors, which shall include, but not be limited to: soil erosion potential, project size, site slope, proximity to and sensitivity of receiving waters and any other relevant factors. At a minimum, high priority construction sites shall include: sites 20 acres and larger; sites over 1 acre that are tributary to Clean Water Act Section 303(d) waters listed for sediment or turbidity impairments; and sites that are tributary to and within 500 feet of an area defined by the Ocean Plan as an Area of Special Biological Significance (ASBS). At a minimum, medium priority construction sites shall include sites between 5 to 20 acres of disturbed soil.

4. Each permittee shall conduct construction site inspections, subject to limitations on municipal action under the constitutions of California and the United States, for compliance with its ordinances (grading, Water Quality Management Plans, etc.), local permits (construction, grading, etc.), the Model Construction Program and the Construction Runoff Guidance Manual, both developed by the permittees. The permittees must develop a checklist for conducting construction site inspections. Inspections of construction sites shall include, but not be limited to:

   a) Verification of coverage under the General Construction Permit (Notice of Intent or Waste Discharge Identification Number, WDID Number) during the initial inspection;

   b) A documented review of the Erosion and Sediment Control Plan (ESCP) to ensure that the BMPs to be implemented on-site are consistent with the appropriate phase of construction (Preliminary Stage, Mass Grading Stage, Streets and Utilities Stage, etc.);

   c) Visual observation for non-storm water discharges and potential pollutant sources;

   d) Determination of compliance with local ordinances, permits, Water Quality Management Plans, Construction Runoff Guidance Manual and other relevant requirements including the implementation and maintenance of BMPs required under local requirements; and,

   e) An assessment of the effectiveness of BMPs implemented at the site and the need for any additional BMPs.

5. At a minimum, the inspection frequency shall include the following:

   a) During the dry season (i.e., May 1 through September 30 of each year), all construction sites shall be inspected at a frequency sufficient to ensure that sediment and other pollutants are properly controlled and that unauthorized, non-storm water discharges are prevented.

   b) During the wet season (i.e., October 1 through April 30 of each year), all high priority sites are to be inspected, in their entirety, once a month. All medium priority sites are to be inspected at least twice during the wet season. All low priority sites are to be inspected at least once during the wet season. When BMPs or BMP maintenance is deemed inadequate or out of compliance, an

inspection frequency of once every week will be maintained until BMPs and BMP maintenance are brought into compliance.

6. To establish a consistent enforcement program for non-compliant construction sites, the permittees shall enforce their ordinances and permits at all construction sites in a fair, firm and consistent manner. If necessary, the permittees shall revise their LIPs within 12 months of adoption of this order to include a mechanism to notify and to establish a clear and coordinated enforcement linkage for further enforcement action with Regional Board staff. Sanctions for non-compliance must include: a written enforcement order at the time of inspection and other appropriate actions, such as Administrative Compliance Orders, Cease and Desist Orders, Stop Work Orders, Misdemeanor/Infractions, monetary penalties, bonding requirements and/or permit denial or administrative termination.
7. All violations shall be notified as per Section XVII.
8. Each permittee shall respond to complaints received from third parties in a timely manner to ensure that the construction sites are not a source of pollutants in the MS4s and the receiving waters.
9. All construction site inspectors shall be trained in accordance with Section XVI.

IX. MUNICIPAL INSPECTIONS OF INDUSTRIAL FACILTIES

1. Each permittee shall continue to maintain an inventory of industrial facilities within its jurisdiction. All sites that have the potential to discharge pollutants to the MS4 should be included in this inventory regardless of whether the facility is subject to business permits, licensing, the State's General Industrial Permit or other individual NPDES permit. This database must be updated on an annual basis. This inventory must be maintained in a computer-based database system and must include relevant information on ownership, SIC code(s), General Industrial Permit WDID # (if any), size, location, etc. Inclusion of a Geographical Information System (GIS) is required, with latitude/longitude (in decimals) or NAD83/WGS84[39] compatible formatting.
2. To establish priorities for inspection requirements under this order, the permittees shall continue to prioritize industrial facilities within their jurisdiction as a high, medium or low threat to water quality. Continuous evaluation of these facilities should be based on such factors as type of industrial activities (SIC codes), materials or wastes used or stored outside, pollutant discharge potential, facility size, proximity and sensitivity of receiving waters and any other relevant factors. At a minimum, a high priority shall be assigned to: facilities subject to section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA); facilities requiring coverage under the General Industrial Permit; facilities with a high potential for, or history of, unauthorized, non-storm water discharges; and facilities that are tributary to, and within 500 feet of, an area defined by the Ocean Plan as an Area of Special Biological Significance.

[39] See Footnote 38.

3. Each permittee shall conduct industrial facility inspections, subject to limitations on municipal action under the constitutions of California and the United States, for compliance with its ordinances, permits and this order. Inspections shall include a review of material and waste handling and storage practices, written documentation of pollutant control BMP implementation and maintenance procedures and digital photographic documentation for any water quality violations, as well as, evidence of past or present unauthorized, non-storm water discharges and enforcement actions issued at the time of inspection. All high priority facilities identified in Section IX.2 shall be inspected at least once a year and a report on these inspections shall be submitted in the annual report for each year.
4. All medium priority sites are to be inspected at least once every two years; and all low priority sites are to be inspected at least once per permit cycle. In the event that inappropriate material or waste handling or storage practices are observed, or there is evidence of past or present unauthorized, non-storm water discharges, an enforcement order shall be issued and a re-inspection frequency schedule adequate to bring the site into compliance, must be maintained (at a minimum, once a month). Once compliance is achieved, a minimum inspection frequency of once every six months will be maintained for the next calendar year.
5. Each permittee shall continually identify any industrial facilities within their jurisdiction and shall add them to the database, as identified in Section IX.1. Additionally, each facility shall be listed with its respective prioritization in accordance with the specifications identified in Section IX.2, within 15 days from the initial date of discovery of the facility.
6. Information including, at a minimum, inspection dates, inspectors present, the photographic and written results of the inspection and any enforcement actions taken must be maintained in the database identified in Section IX.1 or must be linked to that database. A copy of this database must be provided to the Regional Board with each annual report.
7. Each permittee shall enforce its ordinances and permits at all industrial facilities in accordance with the Enforcement Consistency Guide to maintain compliance with this order. At a minimum, each facility shall be required to implement source control and pollution prevention measures consistent with the BMP Fact Sheets developed by the permittees. Sanctions for non-compliance shall be adequate to bring the site into compliance and must include: an oral or written warning for minor violations at the time of inspection, a written enforcement order for violations that pose a threat to water quality that should include consideration of monetary penalties, bonding requirements and/or permit denial or revocation depending on the severity of the violation and in accordance with the Enforcement Consistency Guide.
8. Regional Board shall be notified of all violations in accordance with Section XVII.
9. Industrial site inspectors shall be trained as stipulated in Section XVI.

10. The permittees need not inspect facilities already inspected by Regional Board staff, if the inspection was conducted within the specified time period[40].

X. MUNICIPAL INSPECTIONS OF COMMERCIAL FACILITIES

1. Each permittee shall continue to maintain and update quarterly an inventory of the types of commercial facilities/businesses listed below within its jurisdiction[41]. As required under the third term permit, this inventory must be maintained in a computer-based database system (Commercial Database) and must include relevant information on ownership, size, location, etc. For fixed facilities, inclusion of a Geographical Information System (GIS), with latitude/longitude (in decimals) or NAD83/WGS84[42] compatible formatting is required. For water quality planning purposes, the permittees should consider using a parcel-level GIS that contains an inventory of the types of facilities/discharges listed below.

   Commercial facilities may include, but may not be limited to[43]:

   a) Transport, storage or transfer of pre-production plastic pellets.
   b) Automobile mechanical repair, maintenance, fueling or cleaning;
   c) Airplane maintenance, fueling or cleaning;
   d) Marinas and boat maintenance, fueling or cleaning;
   e) Equipment repair, maintenance, fueling or cleaning;
   f) Automobile impound and storage facilities;
   g) Pest control service facilities;
   h) Eating or drinking establishments, including food markets and restaurants;
   i) Automobile and other vehicle body repair or painting;
   j) Building materials retail and storage facilities;
   k) Portable sanitary service facilities;
   l) Painting and coating;
   m) Animal facilities such as petting zoos and boarding and training facilities;
   n) Nurseries and greenhouses;
   o) Landscape and hardscape installation;
   p) Pool, lake and fountain cleaning;
   q) Golf courses;
   r) Other commercial sites/sources that the permittee determines may contribute a significant pollutant load to the MS4; and,
   s) Any commercial sites or sources that are tributary to and within 500 feet of an area defined by the Ocean Plan as an Area of Special Biological Significance.

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[40] An appropriate framework for inspection coordination will be developed by Regional Board staff and the permittees.

[41] The inventory update schedule may be revised with the approval of the Executive Officer.

[42] See Footnote 38.

[43] Mobile cleaning services are addressed in X.8, below.

2. Each permittee shall conduct, or require to be completed, inspections of its commercial facilities as indicated below and subject to limitations on municipal action under the constitutions of California and the United States. To establish priorities for inspection, the permittees shall continue to prioritize commercial facilities/businesses within their jurisdiction as a high, medium or low threat to water quality based on such factors as the type, magnitude and location of the commercial activity, potential for discharge of pollutants to the MS4, any history of unauthorized, non-storm water discharges, proximity and sensitivity of receiving waters, material used and wastes generated at the site. Within 12 months of adoption of this order, the permittees shall develop a prioritization and inspection schedule for the commercial facilities in Section X.1 for review and approval by the Executive Officer. Until that plan is approved, the following minimum criteria must be met for prioritization of commercial sites for inspections: 10% of commercial sites (not including restaurants/food markets) must be ranked 'high' and these represent the greatest threat to water quality[44]; 20% of commercial sites (not including restaurants/food markets) must be ranked 'medium'; and, the remainder may be ranked 'low'.

3. Each permittee shall conduct, or require to be completed, commercial facility inspections, at frequencies as determined by the threat to water quality prioritization, for compliance with its ordinances, permits and this order. All high priority sites shall be inspected at least once a year; all medium priority sites shall be inspected at least every two years; and all low priority sites shall be inspected at least once per permit cycle. At a minimum, each facility shall be required to implement source control and pollution prevention measures consistent with the BMP Fact Sheets developed by the permittees. Inspections should include a review of control measures implemented, their effectiveness and maintenance; written and photographic documentation of materials and waste handling and storage practices; evidence of past or present unauthorized, non-storm water discharges; and an assessment of management/employees awareness of storm water pollution prevention measures.

4. In the event that inappropriate material or waste handling or storage practices are observed, or there is evidence of past or present unauthorized, non-storm water discharges, a written enforcement order shall be issued, at the time of inspection, to bring the site into compliance.

5. Information, including inspection dates, inspectors present, the written and photographic documentation results of the inspection and any enforcement actions including mitigative compliance orders must be maintained in the Commercial Database or must be linked to that database. A copy of this database must be provided to the Regional Board with each annual report.

6. Each permittee shall enforce its ordinances and permits at commercial facilities. Sanctions for non-compliance must include: enforcement orders issued at the time of inspections, monetary penalties, bonding requirements and/or permit denial or

[44] Where there are less than 100 commercial sites within a municipality, at least 10 sites must be ranked 'High'.

revocation. Sanctions shall be consistent with methods and protocols established in the Enforcement Consistency Guide.

7. All violations shall be notified as specified in Section XVII.
8. Within 12 months of adoption of this order, the permittees shall develop a mobile business pilot program. The pilot program shall address one category of mobile business from the following list: mobile auto washing/detailing; equipment washing/cleaning; carpet, drape and furniture cleaning; mobile high pressure or steam cleaning. The pilot program shall include at least two notifications of the individual businesses operating within the County regarding the minimum source control and pollution prevention measures that the business must implement. The pilot program shall include outreach materials for the business and an enforcement strategy to address mobile businesses. The permittees shall also develop and distribute the BMP Fact Sheets for the selected mobile businesses. At a minimum, the mobile business Fact Sheets should include: laws and regulations dealing with urban runoff and discharges to storm drains; appropriate BMPs and proper procedure for disposing of wastes generated.
9. The principal permittee shall continue to maintain a restaurant inspection program, or coordinate and collaborate with the Orange County Health Care Agency's restaurant inspection program. The restaurant inspection program shall, at a minimum, continue to conduct annual inspections that address:
   a) Oil and grease disposal to verify that these wastes are not poured onto a parking lot, street or adjacent catch basin;
   b) Trash bin areas to verify that these areas are clean, the bin lids are closed, the bins are not filled with liquid and the bins have not been washed out;
   c) Parking lot, alley, sidewalk and street areas to verify that floor mats, mops, filters and garbage containers are not washed in those areas and that no washwater is poured in those areas or discharged to the MS4;
   d) Parking lot areas to verify that they are cleaned by sweeping, not by hosing down and that the facility operator uses dry methods for spill cleanup; and,
   e) Inspection of existing devices designed to separate grease from wastewater (e.g., grease traps or interceptors) to ensure adequate capacity and proper maintenance is currently performed under the Fats, Oils and Grease (FOG) program (the FOG inspections conducted under the Statewide SSO order (Water Quality Order No. 2006-0003) could be substituted for this inspection).

   All violations of the Water Quality Ordinance should be enforced by the permittees and all violations of the Health and Safety Code should be enforced by the Health Care Agency.
10. All commercial site inspectors shall be trained as specified in Section XVI.

11. The permittees need not inspect facilities already inspected by Regional Board staff if the inspection was conducted within the specified time period[45].

XI. RESIDENTIAL PROGRAM

1. Each permittee shall develop and implement a residential program to reduce the discharge of pollutants from residential facilities to the MS4s consistent with the maximum extent practicable standard so as to prevent discharges from the MS4s from causing or contributing to a violation of water quality standards in the receiving waters.
2. The permittees should identify residential areas and activities that are potential sources of pollutants and develop Fact Sheets/BMPs. At a minimum, this should include: residential auto washing and maintenance activities; use and disposal of pesticides, herbicides, fertilizers and household cleaners; and collection and disposal of pet wastes. The permittees shall encourage residents to implement pollution prevention measures. The permittees should work with sub-watershed groups (e.g., the Serrano Creek Conservancy) to disseminate latest research information, such as the UC Master Gardeners Program[46] and USDA's Backyard Conservation Program[47].
3. The permittees, collectively or individually, shall facilitate the proper collection and management of used oil, toxic and hazardous materials, and other household wastes. Such facilitation should include educational activities, public information activities, and establishment of curbside or special collection sites managed by the permittees or private entities, such as solid waste haulers.
4. Within 18 months of adoption of this order, the permittees shall develop a pilot program to control pollutant discharges from common interest areas and areas managed by homeowner associations or management companies. The permittees should evaluate the applicability of programs such as the Landscape

[45] An appropriate framework for inspection coordination will be developed by Regional Board staff and the permittees.

[46] The UC Master Gardener volunteer program provides gardening and horticulture information to the residents of Orange County through trained volunteers who disseminate University research based scientific information.

[47] Backyard Conservation, Bringing Conservation from the Countryside to Your Backyard, USDA Natural Resources Conservation Service, National Association of Conservation Districts, Wildlife Habitat Council and National Audubon Society.

Performance Certification Program[48] to encourage efficient water use and to minimize runoff[49].

5. The permittees shall enforce their Water Quality Ordinance for all residential areas and activities. The permittees should encourage new developments to use weather-based evapotranspiration (ET) irrigation controllers[50].
6. Each permittee shall include an evaluation of its Residential Program in the annual report starting with the first annual report after adoption of this order.

XII. NEW DEVELOPMENT (INCLUDING SIGNIFICANT RE-DEVELOPMENT)

A. GENERAL REQUIREMENTS:

1. The permittees shall continue to maintain a computerized database to ensure (prior to issuance of any local permits or other approvals) that all construction sites that are required to obtain coverage under the State's General Construction Permit have filed with the State Board a Notice of Intent for coverage under the General Permit.
2. Within 12 months of adoption of this order, the principal permittee, in collaboration with the co-permittees, shall develop a guidance document for the preparation of conceptual or preliminary WQMPs to more effectively ensure that water quality protection, including LID principles, is considered in the earliest phases of a project. Within 18 months of adoption of this order, each permittee shall revise its LIP to be consistent with the guidance. The permittees are encouraged to require submission of a conceptual WQMP as early in the planning process as possible.
3. Each permittee shall minimize the short and long-term impacts on receiving water quality from new developments and significant re-developments, as required in Section XII.B.2., below, by requiring the submittal of a WQMP, emphasizing implementation of LID principles and addressing hydrologic conditions of concern, prior to issuance of any grading or building permits and/or prior to recordation of any subdivision maps.
4. In the first annual report following adoption of this permit, the permittees shall include a summary of their review of the watershed protection principles and policies in their General Plan and related documents (such as Development Standards, Zoning Codes, Conditions of Approval, Development Project Guidance, Local Coastal Plan, etc.) to ensure that these principles and policies,

[48] For example, see the Metropolitan Water District of Orange County's Evaluation of the Landscape Performance Certification Program, January 2004.

[49] The Residential Runoff Reduction Study, Municipal Water District of Orange County, Irvine Ranch Water District and Metropolitan Water District of Southern California, July 2004.

[50] Westpark Study, Municipal Water District of Orange County, Irvine Ranch Water District and Metropolitan Water District of Southern California, 2001.

including LID principles, are properly considered and are incorporated into these documents. These principles and policies should include, but not be limited to, LID principles discussed in Section XII. C and hydrologic conditions of concern discussed in Section XII. D. Within 6 months of adoption of this order, the principal permittee shall facilitate the formation of a technical advisory committee (TAC) consisting of the Community Development/Planning Department directors of the co-permittees to effectively incorporate watershed protection principles (including LID) and policies during the early stages of a project. The TAC shall meet at least on an annual basis to develop common development standards, zoning codes, conditions of approval and other principles and policies necessary for water quality protection. Each annual report shall include a brief summary of the TAC meetings including its recommendations.

5. Each permittee shall provide the Regional Board with the draft amendment or revision when a pertinent General Plan element or the General Plan is noticed for comment in accordance with Govt. Code § 65350 et seq.

6. The permittees shall review their planning procedures and CEQA document preparation processes at the time of DAMP finalization and no later than 24 months after adoption of this order, to ensure that urban runoff-related issues are properly considered and addressed. If necessary, these processes shall be revised to consider and mitigate impacts to storm water quality. Should findings of the review result in changes to the above processes, the permittee shall include these changes in the LIP and submit a revised copy of the LIP to the Regional Board with the next annual report. The permittees shall ensure that the following potential impacts are considered during CEQA reviews:

   a) Potential impact of project construction on storm water runoff;

   b) Potential impact of project's post-construction activity on storm water runoff;

   c) Potential for discharge of storm water pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas. loading docks or other outdoor work areas;

   d) Potential for discharge of storm water to affect the beneficial uses of the receiving waters;

   e) Potential for significant changes in the flow velocity or volume of storm water runoff to cause environmental harm; and,

   f) Potential for significant increases in erosion of the project site or surrounding areas.

   g) Potential decreases in quality and quantity of recharge to groundwater.

   h) Potential impact of pollutants in storm water runoff from the project site on any 303(d) listed waterbodies.

7. The permittees shall modify the project approval process in conjunction with preparation of the DAMP finalization, consistent with the guidance for conceptual

or preliminary WQMP, to ensure that proper conditions of approval, design specifications and tracking mechanisms are included.

8. The permittees shall train their employees involved with the preparation and/or review of CEQA documents as specified in Section XVI.

B. WATER QUALITY MANAGEMENT PLAN (WQMP) FOR URBAN RUNOFF (FOR NEW DEVELOPMENT/SIGNIFICANT REDEVELOPMENT):

1. The permittees shall annually review the existing structural treatment control and other BMPs for New Developments and submit any changes for review and approval by the Executive Officer. Within 12 months of adoption of this order, the principal permittee shall revise the appropriate tables in the Water Quality Management Plan with the latest information on BMPs and provide additional clarification regarding their effectiveness and applicability.
2. Each permittee shall ensure that an appropriate WQMP is prepared for the following categories of new development/significant redevelopment projects (priority development projects). The WQMP shall be developed in accordance with the approved Model WQMP and shall incorporate LID principles in the WQMP.
   a. All significant redevelopment projects, where significant redevelopment is defined as projects that include the addition or replacement of 5,000 square feet or more of impervious surface on a developed site. Redevelopment does not include routine maintenance activities that are conducted to maintain original line and grade, hydraulic capacity, original purpose of the facility, or emergency redevelopment activity required to protect public health and safety. Where redevelopment results in the addition or replacement of less than fifty percent of the impervious surfaces of a previously existing developed site, and the existing development was not subject to WQMP requirements, the numeric sizing criteria discussed below applies only to the addition or replacement, and not to the entire developed site. Where redevelopment results in the addition or replacement of more than fifty percent of the impervious surfaces of a previously existing developed site, the numeric sizing criteria applies to the entire development.
   b. New development projects that create 10,000 square feet or more of impervious surface (collectively over the entire project site) including commercial, industrial, residential housing subdivisions (i.e., detached single family home subdivisions, multi-family attached subdivisions (town homes), condominiums, apartments, etc.), mixed-use, and public projects. This category includes development projects on public or private land, which fall under the planning and building authority of the permittees.
   c. Automotive repair shops (with SIC codes 5013, 5014, 5541, 7532-7534, 7536-7539).
   d. Restaurants where the land area of development is 5,000 square feet or more.

e. All hillside developments on 5,000 square feet or more, which are located on areas with known erosive soil conditions or where the natural slope is twenty-five percent or more.

f. Developments of 2,500 square feet of impervious surface or more, adjacent to (within 200 feet) or discharging directly[51] into environmentally sensitive areas, such as areas designated in the Ocean Plan as Areas of Special Biological Significance or waterbodies listed on the CWA Section 303(d) list of impaired waters.

g. Parking lots of 5,000 square feet or more of impervious surface exposed to storm water. Parking lot is defined as a land area or facility for the temporary storage of motor vehicles.

h. Streets, roads, highways and freeways of 5,000 square feet or more of paved surface shall incorporate USEPA guidance, "Managing Wet Weather with Green Infrastructure: Green Streets" in a manner consistent with the maximum extent practicable standard. This category includes any paved surface used for the transportation of automobiles, trucks, motorcycles and other vehicles and excludes any routine road maintenance activities where the footprint is not changed.

i. Retail gasoline outlets of 5,000 or more square feet with a projected average daily traffic of 100 or more vehicles per day.

j. Emergency and public safety projects in any of the above-listed categories may be excluded if the delay caused due the requirement for a WQMP compromises public safety, public health and/or environmental protection.

3. WQMPs shall include BMPs for source control, pollution prevention, site design, LID implementation (see Section C., below) and structural treatment control BMPs. For all structural treatment controls, WQMPs shall identify the responsible party for maintenance of the treatment system, vector minimization and control measures, and a funding source or sources for its operation and maintenance. WQMPs shall include control measures for any listed pollutant[52] to an impaired waterbody on the 303(d) list such that the discharge shall not cause or contribute to an exceedance of receiving water quality objectives. The permittees shall require the following source control BMPs for each priority development project, unless formally substantiated as unwarranted in a written submittal to the permittee:

a) Minimize contaminated runoff, including irrigation runoff, from entering the MS4s;

[51] Discharging directly means a drainage or conveyance which carries flows entirely from the subject development and not commingled with any other flows.

[52] For a waterbody listed under Section 303(d) of the Clean Water Act, the pollutant that is causing the impairment is the "listed pollutant".

b) Provide appropriate secondary containment and/or proper covers or lids for materials storage, trash bins, and outdoor processing and work areas;

c) Minimize storm water contact with pollutant sources;

d) Provide community car wash and equipment wash areas that discharge to sanitary sewers;

e) Minimize trash and debris in storm water runoff through regular street sweeping and through litter control ordinances.

f) The pollutants in post-development runoff shall be reduced using controls that utilize best management practices, as described in the California Stormwater Quality Handbooks, Caltrans Storm Water Quality Handbook or other reliable sources.

4. At a minimum, structural BMPs shall be designed and built in accordance with the approved model WQMP and must be sized to comply with one of the following numeric sizing criteria:

A. Volume

Volume–based BMPs shall be designed to infiltrate, filter, or treat either:

1) The volume of runoff produced from a 24-hour, 85th percentile storm event, as determined from the County of Orange's 85th Percentile Precipitation Isopluvial Map[53]; or,

2) The volume of annual runoff produced by the 85th percentile, 24-hour rainfall event, determined as the maximized capture storm water volume for the area, from the formula recommended in Urban Runoff Quality Management, WEF Manual of Practice No. 23/ASCE Manual of Practice No. 87 (1998); or,

3) The volume of annual runoff based on unit basin storage volume, to achieve 80% or more volume treatment by the method recommended in California Stormwater Best Management Practices Handbook – Industrial/Commercial; or,

4) The volume of runoff, as determined from the local historical rainfall record, that achieves approximately the same reduction in pollutant loads and flows as achieved by mitigation of the 85th percentile, 24-hour runoff event;

OR

B. Flow

Flow-based BMPs shall be designed to infiltrate, filter, or treat either:

1) The maximum flow rate of runoff produced from a rainfall intensity of 0.2 inch of rainfall per hour, for each hour of a storm event; or,

[53] The isopluvial map is available from: http://www.ocwatersheds.com/StormWater/PDFs/2003 DAMP Section 7 New Development Significant Redevelopment.pdf.

2) The maximum flow rate of runoff produced by the 85th percentile hourly rainfall intensity, as determined from the local historical rainfall record, multiplied by a factor of two; or,

3) The maximum flow rate of runoff, as determined from the local historical rainfall record, which achieves approximately the same reduction in pollutant loads and flows as achieved by mitigation of the 85th percentile hourly rainfall intensity multiplied by a factor of two.

5. To protect ground water resources any structural infiltration BMPs shall meet the following minimum requirements:

   a) Use of structural infiltration treatment BMPs shall not cause or contribute to an exceedance of groundwater water quality objectives.

   b) Source control and pollution prevention control BMPs shall be implemented in conjunction with structural infiltration BMPs to protect groundwater quality. The need for sedimentation or filtration should be evaluated prior to infiltration.

   c) Structural infiltration treatment BMPs shall not cause a nuisance or pollution, as defined in Water Code Section 13050.

   d) The vertical distance from the bottom of the infiltration system to the seasonal high groundwater must be at least 10 feet. Where the groundwater basins do not support beneficial uses, this vertical distance criteria may be reduced, provided groundwater quality is maintained.

   e) The infiltration systems must be located at least 100 feet horizontally from any water supply wells.

   f) Infiltration systems must not be used for areas of industrial or light industrial activity; areas subject to high vehicular traffic (25,000 or more daily traffic) automotive repair shops; car washes; fleet storage areas; nurseries; or any other high threat to water quality land uses or activities[54].

   g) Within 18 months of adoption of this order, the principal permittee shall develop a pilot program to monitor the impact of groundwater infiltration systems on the quality of groundwater. This monitoring program may be conducted by: (1) analyzing the quality of the runoff prior to infiltration; (2) by monitoring the quality of the infiltrate through the vadose zone; or (3) by monitoring groundwater quality upstream and downstream of the infiltration systems. The results of the pilot study shall be submitted with the next annual report.

6. Within 12 months from the date of adoption of this order, the principal permittee shall develop recommendations for streamlining regulatory agency approval of

[54] This restriction applies only to sites that are known to have soil and/or groundwater water contamination. Recent studies by the Los Angeles and San Gabriel Watershed Council of Storm Water Recharge has shown that there is no statistically significant degradation of groundwater quality from the infiltration of storm water-borne constituents.

regional treatment control BMPs. The recommendations should include information needed to be submitted to the Regional Board for consideration of regional treatment control BMPs. At a minimum, it should include: BMP location; type and effectiveness in removing pollutants of concern; projects tributary to the regional treatment system; engineering design details; funding sources for construction, operation and maintenance; and parties responsible for monitoring effectiveness, operation and maintenance.

7. The permittees shall require non-priority development projects to document, via a WQMP or similar mechanism, site design, source control and any other BMPS which may or may not include treatment control BMPs.

C. LOW IMPACT DEVELOPMENT TO CONTROL POLLUTANTS IN URBAN RUNOFF FROM NEW DEVELOPMENT/SIGNIFICANT REDEVELOPMENT:

1. Within 12 months of adoption of this order, the permittees shall update the model WQMP to incorporate LID principles (as per Section XII.C) and to address the impact of urbanization on downstream hydrology (as per Section XII.D) and a copy of the updated model WQMP shall be submitted for review and approval by the Executive Officer[55]. As provided in Section XII.J, 90 days after approval of the revised model WQMP, priority development projects shall implement LID principles described in this section, Section XII.C. To the extent that the Executive Officer has not approved the feasibility criteria within 18 months of adoption of this order as provided in Section XII.E.1, the infeasibility of implementing LID BMPs shall be determined through project specific analyses, each of which shall be submitted to the Executive Officer, 30 days prior to permittee approval.
2. The permittees shall reflect in the WQMP and otherwise require that each priority development project infiltrate, harvest and re-use, evapotranspire, or bio-treat[56] the 85th percentile storm event ("design capture volume"), as specified in Section XII.B.4.A.1, above. Any portion of the design capture volume that is not infiltrated, harvested and re-used, evapotranspired or bio-treated[57] onsite by LID BMPs shall be treated and discharged in accordance with the requirements set forth in Section XII.C.7 and/or Section XII.E, below.

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[55] The Executive Officer shall provide members of the public with notice and at least a 30-day comment opportunity for all documents submitted in accordance with this order. If the Executive Officer, after considering timely submitted comments, concludes that the document is adequate or adequate with specified changes, the Executive Officer may approve the document or present it to the Board for its consideration at a regularly scheduled and noticed meeting. If there are significant issues that cannot be resolved by the Executive Officer, the document will be presented to the Board for its consideration at a regularly scheduled meeting.

[56] A properly engineered and maintained bio-treatment system may be considered only if infiltration, harvesting and reuse and evapotranspiration cannot be feasibly implemented at a project site (feasibility criteria will be established in the model WQMP [Section XII.C.1] and the technically-based feasibility criteria [Section XII.E.1]). Specific design, operation and maintenance criteria for bio-treatment systems shall be part of the model WQMP that will be produced by the permittees.

[57] For all references to bio-treat/bio-treatment, see footnote 56.

3. The permittees shall incorporate LID site design principles to reduce runoff to a level consistent with the maximum extent practicable standard during each phase of priority development projects. The permittees shall require that each priority development project include site design BMPs during development of the preliminary and final WQMPs. The design goal shall be to maintain or replicate the pre-development hydrologic regime through the use of design techniques that create a functionally equivalent post-development hydrologic regime through site preservation techniques and the use of integrated and distributed micro-scale storm water infiltration, retention, detention, evapotranspiration, filtration and treatment systems as close as feasible to the source of runoff. Site design considerations shall include, but not be limited to:

   a) Limit disturbance of natural water bodies and drainage systems; conserve natural areas; preserve trees; minimize compaction of highly permeable soils; protect slopes and channels; and minimize impacts from storm water and urban runoff on the biological integrity of natural drainage systems and water bodies;

   b) Minimize changes in hydrology and pollutant loading; require incorporation of controls, including structural and non-structural BMPs, to mitigate the projected increases in pollutant loads and flows; ensure that post-development runoff durations and volumes from a site have no significant adverse impact on downstream erosion and stream habitat; minimize the quantity of storm water directed to impermeable surfaces and the MS4s; minimize paving, minimize runoff by disconnecting roof leader and other impervious areas and directing the runoff to pervious and/or landscaped areas, minimize directly connected impervious areas; design impervious areas to drain to pervious areas; consider construction of parking lots, walkways, etc., with permeable materials; minimize pipes, culverts and engineered systems for storm water conveyance thereby minimizing changes to time of concentration on site; utilize rain barrels and cisterns to collect and re-use rainwater; maximize the use of rain gardens and sidewalk storage; and maximize the percentage of permeable surfaces distributed throughout the site's landscape to allow more percolation of storm water into the ground;

   c) Preserve wetlands, riparian corridors, vegetated buffer zones and establish reasonable limits on the clearing of vegetation from the project site;

   d) Use properly designed and well maintained water quality wetlands, bio-retention areas, filter strips and bio-filtration swales; consider replacing curbs gutters and conventional storm water conveyance systems with bio-treatment systems, where such measures are likely to be effective and technically and economically feasible;

   e) Provide for appropriate permanent measures to reduce storm water pollutant loads in storm water from the development site;

   f) Establish development guidelines for areas particularly susceptible to erosion and sediment loss;

g) Implement effective education programs to educate property owners to use pollution prevention measures and to maintain on-site hydrologically functional landscape controls; and

h) During the early planning stages of a project, the LID principles shall be considered to address pollutants of concern identified in the Watershed Action Plans and TMDL Implementation Plans, and the LID BMPs shall be incorporated into the sites conceptual WQMP.

4. The selection of LID principles shall be prioritized in the following manner (from highest to the lowest priority): (1) Preventative measures (these are mostly non-structural measures, e.g., preservation of natural features to a level consistent with the maximum extent practicable standard; minimization of runoff through clustering, reducing impervious areas, etc.) and (2) Mitigation (these are structural measures, such as, infiltration, harvesting and reuse, bio-treatment, etc. The mitigation or structural site design BMPs shall also be prioritized (from highest to lowest priority): (1) Infiltration (examples include permeable pavement with infiltration beds, dry wells, infiltration trenches, surface and sub-surface infiltration basins. All infiltration activities should be coordinated with the groundwater management agencies, such as the Orange County Water District); (2) Harvesting and Re-use (e.g., cisterns and rain barrels); and (3) Bio-treatment such as bio-filtration/bio-retention.

5. Even though the LID principles are universally applicable, there could be constraining factors, such as: soil conditions, including soil compaction, saturation (e.g., hydric soils) and permeability, groundwater levels, soil and/or groundwater contaminants (Brownfield developments), space restrictions (in-fill projects, redevelopment projects, high density development, transit-oriented developments), naturally occurring contaminants (e.g., selenium in the soil and the groundwater in the Newport Bay Watershed), etc. In such cases, the LID principles could be integrated into other programs, such as: Smart Growth[58], New Urbanism[59] or regional or sub-watershed management approaches. Also see Section E, below, for alternatives and in-lieu programs.

6. The LID BMPs shall be designed to mimic pre-development site hydrology through technically and economically feasible preventive and mitigative site design techniques. LID combines hydrologically functional site design with pollution prevention methods to compensate for land development impact on hydrology and water quality.

[58] Smart Growth refers to the use of creative strategies to develop ways that preserve natural lands and critical environmental areas, protect water and air quality, and reuse already-developed land.

[59] New Urbanism is somewhat similar to Smart Growth and is based on principles of planning and architecture that work together to create human-scale, walkable communities that preserve natural resources.

7. If site conditions do not permit infiltration, harvesting and re-use, and/or evapotranspiration, and/or bio-treatment of the design capture volume at the project site as close to the source as possible, the alternatives discussed below should be considered and the credits and in-lieu programs discussed under Section E, below, may be considered:

   a. Implement LID principles at the project site. This is the preferred approach. For example, in a single family residential development: connect roof drains to a landscaped area, divert driveway runoff to a vegetated strip and minimize any excess runoff generated from the development. The pervious areas to which the runoff from the impervious areas are connected should have the capacity to infiltrate, harvest, evapotranspire and/or bio-treat and re-use at least the design capture volume.

   b. Implement as many LID principles as possible at the project site close to the point of storm water generation and infiltrate and/or harvest and re-use at least the design capture volume through designated infiltration/treatment areas elsewhere within the project site. For example, at a condominium development: connect the roof drains to landscaped areas, construct common parking areas with pervious asphalt with a sub-base of rocks or other materials to facilitate percolation of storm water, direct road runoff to curbless, vegetated sidewalks. The pervious areas which receive runoff from impervious areas should have the capacity to infiltrate, harvest and re-use, evapotranspire and/or bio-treat at least the design capture volume.

   c. Implement LID on a sub-regional basis. For example, at a 100 unit high density housing unit with a small strip mall and a school: connect all roof drains to vegetated areas (if there are any vegetated areas, otherwise storm water storage and reuse may be considered or else divert to the local storm water conveyance system, to be conveyed to the local treatment system), construct a storm water infiltration gallery below the school playground to infiltrate and/or harvest and re-use the design capture volume. The pervious areas to which the runoff from the impervious areas are connected should have the capacity to infiltrate, harvest and re-use, evapotranspire and/or bio-treat at least the design capture volume. (Also see discussion on hydrologic conditions of concern, below.)

   d. Implement LID on a regional basis. For example, several developments could propose a regional system to address storm water runoff from all the participating developments. The pervious areas to which the runoff from the impervious areas are connected should have the capacity to infiltrate, harvest and re-use, evapotranspire and/or bio-treat at least the design capture volume from the entire tributary area. (Also see discussion on hydrologic conditions of concern, below.)

D. HYDROLOGIC CONDITIONS OF CONCERN (HYDROMODIFICATION[60])

1. Each priority development project shall be required to ascertain the impact of the development on the site's hydrologic regime and include the findings in the WQMP, including the following for a two-year frequency storm event:

   a) Increases in runoff volume;

   b) Decreases in infiltration;

   c) Changes in time of concentration;

   d) Potential for increases in post development downstream erosion; and,

   e) Potential for adverse downstream impacts on physical structure, aquatic and riparian habitat.

2. The project does not have a hydrologic condition of concern if any one of the following conditions is met:

   a) The volumes and the time of concentration of storm water runoff for the post-development condition do not significantly exceed those of the pre-development condition for a two-year frequency storm event (a difference of 5% or less is considered insignificant). This may be achieved through site design and source control BMPs.

   b) All downstream conveyance channels that will receive runoff from the project are engineered, hardened and regularly maintained to ensure design flow capacity, and no sensitive stream habitat areas will be affected.

   c) The site infiltrates at least the runoff from a two-year storm event. The permittees may request for a variance from these criteria, based on studies conducted by the Storm Water Monitoring Coalition, Southern California Coastal Water Research Project, or other regional studies. Requests for consideration of any variances should be submitted to the Executive Officer.

3. If a hydrologic condition of concern exists, then the WQMP shall include an evaluation of whether the project will adversely impact downstream erosion, sedimentation or stream habitat. This evaluation should include a hydrograph with pre- and post-development time of concentration for a 2-year frequency storm event. If the evaluation determines adverse impacts are likely to occur, the project proponent shall implement additional site design controls, on-site management controls, structural treatment controls and/or in-stream controls to mitigate the impacts. The project proponent should first consider site design controls and on-site controls prior to proposing in-stream controls; in-stream controls must not adversely impact beneficial uses or result in sustained degradation of water quality of the receiving waters.

[60] Hydromodification is the alteration of natural flow characteristics.

4. The project proponent may also address hydrologic conditions of concern by mimicking the pre-development hydrograph with the post-development hydrograph, for a two year return frequency storm. Generally, the hydrologic conditions of concern are not significant, if the post-development hydrograph is no more than 10% greater than pre-development hydrograph. In cases where excess volume cannot be infiltrated or captured and reused, discharge from the site must be limited to a flow rate no greater than 110% of the pre-development 2-year peak flow.

5. The permittees shall address the hydrologic conditions of concern on a watershed basis by preparing a Watershed Master Plan as described below:

   The Watershed Master Plans shall integrate water quality, hydromodification, water supply, and habitat for the following watersheds: Coyote Creek-San Gabriel River; Anaheim Bay-Huntington Harbour; Santa Ana River; and Newport Bay-Newport Coast. Components of the Plan shall include: (1) maps to identify areas susceptible to hydromodification including downstream erosion, impacts on physical structure, impacts on riparian and aquatic habitats and areas where storm water and urban runoff infiltration is possible and appropriate; and, (2) a hydromodification model to make available as a tool to enable proponents of land development projects to readily select storm water preventive and mitigative site BMP measures.

   The maps shall be prepared within 12 months of the adoption of this order and a model Plan for one watershed shall be prepared within 24 months of adoption of this order. The model Plan should specify hydromodification management standards for each sub-watershed and provide assessment tools. In the preparation of the model Plan, the permittees are encouraged to use currently available information from other sources such as: (1) Orange County Flood Control Master Plan; (2) Irvine Ranch Water District's Natural Treatment System Master Plan; (3) Orange County Watershed Plans; (4) Nutrient and Selenium Management Program; (5) TMDL and 303(d) Listing information from the U.S. EPA and/or the Regional Board, and (6) and water districts.

   The model Watershed Master Plan shall be submitted to the Executive Officer for approval. Watershed Master Plans shall be completed for all watersheds 24 months after approval of the model Watershed Master Plan.

   The Watershed Master Plans shall be designed to meet applicable water quality standards and the Federal Clean Water Act.

E. ALTERNATIVES AND IN-LIEU PROGRAMS

1. Within 12 months of adoption of this order, the principal permittee, in collaboration with the co-permittees, shall develop technically-based feasibility criteria for project evaluation to determine the feasibility of implementing LID BMPs (feasibility to be based in part, on the issues identified in Section XII.C). This plan shall be submitted to the Executive Officer for approval. Only those projects that have completed a vigorous feasibility analysis as per the criteria developed by the permittees and approved by the Executive Officer should be considered for alternatives and in-lieu programs. If a particular BMP is not technically feasible, other BMPs should be implemented to achieve the same

level of compliance, or if the cost of BMP implementation greatly outweighs the pollution control benefits, a waiver of the BMPs may be granted. All requests for waivers, along with feasibility analysis including waiver justification documentation, must be submitted to the Executive Officer in writing, 30 days prior to permittee approval.

2. The permittees may collectively or individually propose to establish an urban runoff fund to be used for urban water quality improvement projects within the same watershed that is funded by contributions from developers granted waivers. The contributions should be at least equivalent to the cost savings for waived projects and the urban runoff fund shall be expended for water quality improvement or other related projects approved by the Executive Officer within two years of receipt of the funds. If a waiver is granted and an urban runoff fund is established, the annual report for the year should include the following information with respect to the urban runoff fund:

   a) Total amount deposited into the funds and the party responsible for managing the urban runoff fund;

   b) Projects funded or proposed to be funded with monies from the urban runoff fund;

   c) Party or parties responsible for design, construction, operation and maintenance of urban runoff funded projects; and

   d) Current status and a schedule for project completion.

3. The obligation to install structural treatment control BMPs at a new development is met if, for a common plan of development, BMPs are constructed with the requisite capacity to serve the entire common project, even if certain phases of the common project may not have BMP capacity located on that phase in accordance with the requirements specified above. The goal of the WQMP is to develop and implement practicable programs and policies to minimize the effects of urbanization on site hydrology, urban runoff flow rates, velocities and pollutant loads. This goal may be achieved through watershed-based structural treatment controls, in combination with site-specific BMPs. All treatment control BMPs should be located as close as possible to the pollutant sources, should not be located within waters of the US, and pollutant removal should be accomplished prior to discharge to waters of the US. Regional treatment control BMPs shall be operational prior to occupation of any of the priority project sites tributary to the regional treatment BMP.

4. The permittees may establish a water quality credit system for alternatives to infiltration, harvesting and reuse, evapotranspiration, and other LID BMPs and hydromodification requirements specified above. A summary of any waivers of LID, hydromodification and treatment control BMPs should be included in the annual report for each year. Any credit system that the permittees establish

should be submitted to the Executive Officer for review and approval. The following types of projects may be considered for the credit system:

a) Redevelopment projects that reduce the overall impervious footprint

b) Brownfield redevelopment

c) High density developments (>7 units per acre)

d) Mixed use and transit-oriented development (within ½ mile of transit)

e) Dedication of undeveloped portions of the project to parks, preservation areas and other pervious uses

f) Regional treatment systems with a capacity to treat flows from all upstream developments

g) Contribution to an urban runoff fund (see 1, above)

h) Offsite mitigation or dedications within the same watershed

i) City Center area

j) Historic Districts and Historic Preservation areas

k) Live-work developments

l) In-fill projects

F. APPROVAL OF WQMPs

1. The permittees shall utilize a mechanism for review and approval of WQMPs, including a checklist that incorporates the minimum requirements from the model WQMP.

2. The permittees shall maintain a database to track all structural treatment control BMPs, including the location of BMPs, parties responsible for construction, operation and maintenance (also see I.3, below).

3. The permittees shall train those involved with WQMP reviews in accordance with Section XVI, Training Requirements.

G. FIELD VERIFICATION OF BMPS

1. The permittees shall establish and implement a mechanism (a checklist or other tools) to verify that treatment control BMPs are designed and constructed in accordance with the approved WQMP.

2. Prior to occupancy of each priority development project, the permittees shall field verify that the site design, source control and treatment control BMPs have been implemented in accordance with the approved WQMP.

3. Prior to occupancy, the permittees shall verify through visual observation, that the BMPs are operating and functional.

4. The permittees may accept self-certification or third-party certification of BMPs from State licensed professional engineers.

H. CHANGE OF OWNERSHIP AND RECORDATION

1. The permittees shall establish a mechanism not only to track treatment control BMPs, but also to ensure that appropriate easements and ownerships are properly recorded in public records at the County and/or the city and the information is conveyed to all appropriate parties when there is a change in project or site ownership.

I. OPERATION AND MAINTENANCE OF POST-CONSTRUCTION BMPS

1. The permittees shall ensure that all structural treatment control BMPs are designed and implemented with control measures necessary to effectively minimize the creation of nuisance or pollution associated with vectors, such as mosquitoes, rodents, flies, etc. The permittees should consult the Orange County Vector Control District to ensure that structural treatment control systems are designed to minimize the potential for vector breeding. The operation and maintenance plans for all post-construction structural treatment controls should include specific vector control mitigation measures to avoid and/or minimize vector breeding.
2. The permittees shall specify conditions of approval that require proper maintenance and operation of all structural treatment control BMPs installed in new developments, including requirements for vector control. The parties responsible for the long-term maintenance and operation of the structural treatment control BMPs for the life of the project and a funding mechanism for operation and maintenance, shall be identified prior to approval of the WQMP.
3. The permittees shall develop a database with information regarding each structural treatment control BMP installed after adoption of this order. At a minimum, it should include: type of BMP, watershed where it is located, date of construction, party responsible for maintenance, source of funding for operation and maintenance, maintenance verification, and any problems identified during inspections including any vector or nuisance problems. If vector or nuisance problems are identified, the site should be referred to the Orange County Vector Control District. The permittees should work with the Vector Control District to remedy the problems associated with vectors.
4. The annual report shall include a list of all structural treatment control BMPs approved, constructed and/or operating within each permittee's jurisdiction.
5. Within 12 months of adoption of this order and annually thereafter, all public agency structural treatment control BMPs, and at least 25% of priority development project structural treatment control BMPs, shall be inspected prior to the rainy season. All structural treatment control BMPs shall be inspected within every four year period. The permittees shall ensure that the BMPs are operating and are maintained properly and all control measures are working effectively to remove pollutants in runoff from the site. All inspections shall be documented and kept as permittee record. The permittees may accept inspections conducted and certified by state licensed professional engineers in lieu of permittee inspections.

J. PRE-APPROVED PROJECTS

1. The above provisions for LID and hydrologic conditions of concern are not applicable to projects that have an approved Water Quality Management Plan. The above provisions shall be implemented in a manner consistent with the maximum extent practicable standard for all other projects 90 days from the date of approval of the revised model WQMP (per Section XII.C.1). The Regional Board recognizes that full implementation may not be feasible for certain projects which have received tentative tract or parcel map or other discretionary approvals.

XIII. PUBLIC EDUCATION AND OUTREACH

1. The permittees shall continue to implement the public education efforts already underway and shall implement the most effective elements of the comprehensive public and business education strategy contained in the Report of Waste Discharge/DAMP. By July 1, 2012, the permittees shall complete a public awareness survey to determine the effectiveness of the current public and business education strategy and any need for changes to the current multimedia public education efforts. The findings of the survey and any proposed changes to the current program shall be included in the annual report for 2011-2012.
2. The permittees shall sponsor or staff a storm water table or booth at community, regional, and/or countywide events to distribute public education materials to the public. Each permittee shall participate in at least one event per year.
3. The permittees shall continue to participate in the Public Education Committee to review and update existing guidance for the implementation of the public education program. The Public Education Committee shall meet at least twice per year. The Public Education Committee shall continue to make recommendations for any changes to the public and business education program including: how to make the multimedia efforts more effective; a reevaluation of audiences and key messages for targeted behaviors; and opportunities for participation in regional and statewide public education efforts. The goal of the public and business education program shall be to target 100% of the residents, including businesses, commercial and industrial establishments. Through use of local print, radio and television, the permittees must ensure that the public and business education program makes a minimum of 10 million impressions per year and that those impressions measurably increase the knowledge and measurably change the behavior of the targeted groups.
4. The permittees shall continue their outreach and other public education activities. Each permittee should try to reach the following sectors: manufacturing facilities; mobile service industry; commercial, distribution and retail sales industry; residential/commercial landscape construction and services industry; residential and commercial construction industry; and residential and community activities. Individual workshops (or regional workshops) for each of the aforementioned elements shall be administered by each permittee (or on a countywide basis) by July 1, 2010 and on an annual basis thereafter. Commercial and industrial facility inspectors shall distribute developed educational information (Fact Sheets) to these facilities during inspections.

Further, for restaurant, automotive service centers and gasoline service station corporate chains, new information or that which has been previously developed shall be provided to corporate environmental managers during outreach visits that should take place twice during the permit term. Some of these outreach activities could be conducted through the chamber of commerce or other similar establishments. The outcomes from all outreach requirements contained herein shall be reported in the applicable annual reports.

5. The permittees shall further develop and maintain public education materials to encourage the public to report illegal dumping and unauthorized, non-storm water discharges from residential, industrial, construction and commercial sites into public streets, storm drains and to surface waterbodies and their tributaries; clogged storm drains; faded or missing catch basin stencils and general storm water and BMP information. Hotline and web site information shall be included in the public and business education program and shall be listed in the governmental pages of all regional phone books and on the permittees' website.

6. Within 12 months from the date of adoption of this order, the permittees shall further develop and maintain BMP guidance for the control of those potentially polluting activities identified during the previous permit cycle, which are not otherwise regulated by any agency, including guidelines for the household use of fertilizers, pesticides, herbicides and other chemicals, and guidance for mobile vehicle maintenance, carpet cleaners, commercial landscape maintenance, and pavement cutting. These guidance documents shall be distributed to the public, trade associations, etc., through participation in community events, trade association meetings and/or by mail.

7. The principal permittee, in collaboration with the co-permittees, shall develop and implement a mechanism for public participation in the updating and implementation of the Drainage Area Management Plans, monitoring plans, Water Quality Management Plan guidance and Fact Sheets for various activities. The public shall be informed of the availability of these documents through public notices in local newspapers, County and/or city websites, local libraries/city halls and/or courthouses.

XIV. MUNICIPAL FACILITIES/ACTIVITIES

1. The permittees shall continue to implement the Model Municipal Activities Program developed by the permittees for fixed facilities, field operations and drainage facilities to ensure that public agency facilities and activities do not cause or contribute to a pollution or nuisance in receiving waters. By July 1 of each year, the permittees shall review all their activities and facilities to determine the need for any revisions to the facility inventories, prioritization, and maintenance programs. The annual report shall include the findings of this review and a schedule for any needed revisions. All revisions should consider a pollution prevention strategy to ensure that the public agency facilities and/or activities that are currently not required to obtain coverage under the State's general storm water permits reduce the discharge of pollutants into waters of the US to the maximum extent practicable.

2. The permittees shall continue to implement BMPs as per the Fact Sheets developed by the permittees for fixed facilities, field programs and drainage facilities for public

agency and contract field operations and maintenance staff. A reporting of these activities shall be included in each annual report.

3. The permittees shall conduct inspections of open channel systems at least on an annual basis and record the findings in the inspection forms developed by the permittees. At a minimum the following municipal areas should be inspected:

   a) Parking facilities;

   b) Flood management and storm water conveyance systems (open channels);

   c) Areas or facilities discharging directly to lagoons, the ocean, or environmentally sensitive areas such as 303(d) listed waterbodies and Areas of Special Biological Significance; and

   d) Municipal landfills, solid waste transfer facilities, land application sites, corporate yards, sewage collection and treatment facilities, parks and recreation facilities including golf courses, and airfields.

4. All applicable public agency staff shall be trained as specified under Section XVI.

5. In collaboration with the University of California Cooperative Extension and consistent with the Model Integrated Pest Management, Pesticide and Fertilizer Management Guidelines, the permittees shall:

   a) Conduct annual integrated pest management self-audits;

   b) Implement the Model Integrated Pest Management, Pesticide and Fertilizer Guidelines;

   c) Provide proper training to municipal and contract staff involved in the above activities;

   d) Within one year of adoption of this order, revise the LIP to include an integrated pest management program.

6. The permittees shall evaluate the need for any revisions to the Integrated Pest Management, Pesticide and Fertilizer Management Guidelines and determine the need for developing pesticide use indicators.

7. Within one year of adoption of this order, the principal permittee shall evaluate the effectiveness of debris booms and determine if additional debris booms are needed to address floatables in inland streams. This evaluation should also include an evaluation of other control measures such as more effective street sweeping program, litter control measures, and drain inlet screens and /or other inlet controls.

8. Within twelve months of adoption of this order, the principal permittee shall develop an intragency agreement with the County Integrated Waste Management Department to ensure that household solid and hazardous waste collection, transfer and disposal practices do not cause or contribute to a water quality problem.

9. The permittees shall ensure that their flood management processes and projects do not contribute pollutants to receiving waters to the MEP.

10. Each permittee shall examine opportunities to retrofit existing storm water conveyance systems and parks and other recreational areas with water quality protection measures, where feasible. The 2005 RBF Retrofit Study may be used by the principal permittee for a system-wide evaluation in lieu of each permittee conducting its own evaluation. Within 12 months of adoption of this order, the principal permittee shall

submit a proposal for additional retrofit studies that incorporates opportunities for addressing any applicable TMDL implementation plans.

11. The permittees shall continue to implement the established model maintenance procedure for drainage facilities (catch basins, storm drains inlets, open channels, etc.). Each permittee shall clean and maintain at least 80% of its drainage facilities on an annual basis, with 100% of the facilities included in a two-year period, using the model maintenance procedures developed by the permittees. Each permittee shall keep a record of its inspections, maintenance and cleaning activities, and overall quantity of waste removed. This record shall be included in the annual report.
12. The permittees shall determine whether a more aggressive maintenance frequency is necessary for the cleaning of drainage facilities, including catch basins, based on the data generated by the historic and ongoing inspections of these facilities. This program shall be based on a list of drainage facilities and prioritized on such factors as: proximity to receiving waters, receiving water beneficial uses and impairments of beneficial uses, historical pollutant types and loads from past inspections/cleanings and the presence of downstream regional facilities that would remove the types of pollutants found in the drainage facility. Using this list, the permittees shall revise clean out schedules and frequency and provide justification for any proposed clean out frequency that is less than once a year. This information shall be included in the annual report.
13. Within six months of adoption of this order, the permittees shall evaluate the applicability of the Model Municipal Activities Program to municipal maintenance contracts, contracts for field maintenance operations, and leases. The findings from the evaluation shall be included in the next annual report.
14. Each permittee shall implement control measures necessary to minimize infiltration of seepage from sanitary sewers to the storm drain systems through routine preventive maintenance of the storm drain system. The permittees who are also owners and/or operators of sewage collection systems shall also implement a routine maintenance program for the sewage collection systems in accordance with the State Board's Water Quality Order No. 2006-0003. Each permittee shall cooperate and coordinate with the sewage collection/treatment agencies (Orange County Sanitation District and/or Irvine Ranch Water District) to swiftly respond to and contain any sewage spills.

XV. MUNICIPAL CONSTRUCTION PROJECTS/ACTIVITIES

1. This order authorizes the discharge of storm water runoff from construction projects that may result in land disturbance of one (1) acre or more (or less than one acre, if it is part of a larger common plan of development or sale which is one acre or more) that are under ownership and/or direct responsibility of any of the permittees. All permittee construction activities shall be in accordance with DAMP Sections 7 and 8.
2. All construction activities shall be in compliance with the latest version of State's General Permit for Storm Water Discharges Associated with Construction Activities except that an NOI need not be filed with the State Board.
3. Prior to commencement of construction activities, the permittees shall notify the Executive Officer of the Regional Board concerning the proposed construction project. Upon completion of the construction project, the Executive Officer shall be notified of the completion of the project.

4. The permittees shall develop and implement a storm water pollution prevention plan (SWPPP) and a monitoring program that is specific for the construction project greater than one acre, prior to the commencement of any of the construction activities, except for routine maintenance activities. The SWPPP shall be kept at the construction site and released to the public and/or Regional Board staff upon request.
5. The SWPPP (and any other plans and programs required under the General Permit) and the monitoring program for the construction projects shall be consistent with the requirements of the latest version of the State's General Construction Permit.
6. The permittees shall give advance notice to the Executive Officer of the Regional Board concerning any planned changes in the construction activity, which may result in non-compliance with the latest version of the State's General Construction Permit.

XVI. TRAINING PROGRAM FOR STORM WATER MANAGERS, PLANNERS, INSPECTORS AND MUNICIPAL CONTRACTORS

1. Within 12 months from the date of adoption of this order, the principal permittee, in coordination with the co-permittees, shall develop a training program including a training schedule, curriculum content, and defined expertise and competencies for storm water managers, inspectors, maintenance crew, those involved in the review and approval of WQMPs, public works employees, community planners and for those preparing and/or reviewing CEQA documentation and for municipal contractors.
2. The curriculum content should include: federal, state and local water quality laws and regulations as they apply to construction and grading activities, industrial and commercial activities; the potential effects of construction, industrial and commercial activities and urbanization on water quality; implementation and maintenance of erosion control and pollution prevention measures and sediment control BMPs; the proper use and maintenance of erosion and sediment controls; the enforcement protocols and methods established in the Drainage Area Management Plan, Local Implementation Plan, the Construction Runoff Guidance Manual, Enforcement Consistency Guide and Illicit Discharge/Illegal Connection Training Program. Each permittee may develop its own training program curriculum consistent with the general principles discussed in this and the next paragraph. The training program should be coordinated with the Orange County Vector Control District to insure that vector control issues related to post-construction BMPs are incorporated into the training curriculum.
3. The training modules for each category of trainees (managers, inspectors, planners, contractors, public works crew, etc.) should define the required competencies, outline the curriculum, a testing or other procedure at the end of the training program to determine that the trainees have acquired the requisite knowledge in the storm water program to carry out their duties and proof of completion of training, such as Certificate of Completion, attendance sheets or other proof that training has been completed. .
4. At least every two years, the principal permittee shall provide and document training to applicable public agency staff on Fixed Facility Model Maintenance Procedure, Field Program Model Training and Drainage Facility Model Maintenance Training. The field program training should include Model Integrated Pest Management, Pesticide and Fertilizer Guidelines. Each permittee shall attend at least three of these training sessions during the term of this permit. The training sessions may be conducted in classrooms or using videos, DVDs, or other multimedia with appropriate documentation

and a final test to verify that the material has been properly reviewed and understood. The permittees have the option to develop and conduct their own training program as indicated in Paragraph 2, above.

5. The principal permittee shall conduct and document public employee training for model environmental review, and on how to conduct public/business education for preparation of environmental documents. The permittees have the option to develop and conduct their own training program as indicated in Paragraph 2, above.
6. The principal permittee shall provide BMP and training information to municipal contractors to assist the contractors in training their staff. In instances where applicable municipal operations are performed by contract staff, the permittees shall require evidence that contract staff have received a level of training equivalent to that listed above. The permittees have the option to develop and conduct their own training program as indicated in Paragraph 2, above.
7. The principal permittee shall notify designated Regional Board staff via e-mail at least 30 days prior to conducting any of these training sessions.
8. Each permittee shall have adequately trained all its staff involved with storm water related projects within 60 days from being assigned these duties and on an annual basis thereafter, prior to the rainy season.
9. Each permittee shall maintain a written record of all training provided to its storm water and related program staff.

XVII. NOTIFICATION REQUIREMENTS

1. Within 24 hours of discovery, each permittee shall provide oral or e-mail notification to Regional Board staff of non-compliant sites within its jurisdiction that are determined to pose imminent threat to human health or the environment (e.g., sewage spills that could impact water contact recreation, an oil spill that could impact wildlife, a hazardous substance spill where residents are evacuated, etc.). Following oral or email notification, a written report must be submitted to the Regional Board office within 5 business days, detailing the nature of the non-compliance, any corrective action taken by the site owner, other relevant information (e.g., past history of non-compliance, environmental damage resulting from the non-compliance, site owner responsiveness) and the type of enforcement that will be carried out by the permittee. Further, incidences of non-compliance shall be recorded along with the information noted in the written report and the final outcome/enforcement for the incident in the databases for construction, industrial and commercial inspections[61].
2. At a minimum, all sewage spills above 1,000 gallons and all reportable quantities of hazardous waste spills as per 40CFR 117 and 302 shall be reported within 24 hours. All spill incidents shall be also included in the annual report. The permittees may propose a reporting program, including reportable incidents and quantities, jointly with other agencies, such as the County Health Care Agency, for approval by the Executive Officer.

[61] The reporting schedule may be revised with the approval of the Executive Officer.

XVIII. WATERSHED ACTION PLANS AND TMDL IMPLEMENTATION

A. IMPAIRED WATERBODIES WITH NO TMDLS

1. The principal permittee, in collaboration with the co-permittees, shall develop Watershed Action Plans for areas where such a Plan has not been developed. Existing Watershed Action Plans and those under development shall be updated as new TMDLs are approved by the Regional Board.
2. Each Watershed Action Plan shall identify impaired waters [CWA § 303(d) listed], pollutants causing impairment, monitoring programs for these pollutants, control measures, including any BMPs that the permittees are currently implementing, and any BMPs that the permittees are proposing to implement. All construction sites that are adjacent to (within 200 feet) or discharging directly to a waterbody listed for sediments or turbidity shall be treated as high priority sites. In selecting control measures, the listed pollutants shall be treated as primary pollutants of concern and these pollutants shall be addressed through source control, site design, pollution prevention and structural treatment control BMPs.

B. WATERBODIES WITH TECHNICAL TMDLS (NO IMPLEMENTATION PLANS)

1. As required under a consent decree, in 2002, the EPA promulgated technical TMDLs for toxic pollutants in San Diego Creek and Newport Bay, including metals, organochlorine compounds, selenium and organophosphate pesticides. EPA and the Los Angeles Regional Water Quality Control Board established technical TMDLs for metals in Coyote Creek. Technical TMDLs do not include implementation plans or compliance schedules.
2. In collaboration with stakeholders, Regional Board staff are developing revised TMDLs that are expected to supplant the toxics TMDLs promulgated by EPA for the Newport watershed. The TMDLs will include implementation plans and compliance schedules. Implementation plans for the Coyote Creek TMDLs are also being developed.
3. In summary, work related to the following established TMDLs is ongoing:
   a) Metals (San Diego Creek and Newport Bay (including Rhine Channel))
   b) Metals (Mercury, Chromium) (Rhine Channel)
   c) Organochlorine compounds (San Diego Creek and Newport Bay; also see Paragraphs 5 and 6, below)
   d) Selenium (San Diego Creek and Newport Bay)
   e) Copper, lead and zinc (Coyote Creek, TMDL developed by the EPA and the Los Angeles Regional Water Quality Control Board for wet weather)
   f) Copper (Coyote Creek, TMDL developed by the EPA and the Los Angeles Regional Water Quality Control Board for dry weather)
4. The permittees in the Newport Watershed shall comply with the wasteload allocations specified in the established TMDLs and shown in Tables 1 A/B/C, 2 A/B/C/D and 3. These wasteload allocations shall remain in effect unless and

until alternative wasteload allocations are established in TMDLs approved by the Regional Board, State Board, Office of Administrative Law and EPA.

Tables 1 A/B/C/D – Urban Runoff Waste Load Allocations for Metals (TMDLs promulgated by U.S. EPA)[62]

A- San Diego Creek and Tributaries – Concentration based TMDL

	Base flows (<20 cfs) Hardness- 400 mg/L		Small flows (21-181 cfs) Hardness- 322 mg/L		Med. flows (182-815 cfs) Hardness- 236 mg/L		Large Flows (>815 cfs) Hardness- 197 mg/L
	Acute	Chronic	Acute	Chronic	Acute	Chronic	Acute
Cd (ug/L)	19.1	6.2	15.1	5.3	10.8	4.2	8.9
Cu (ug/L)	50	29.3	40	24.3	30.2	18.7	25.5
Pb (ug/L)	281	10.9	224	8.8	162	6.3	134
Zn (ug/L)	379	382	316	318	243	244	208

B- Newport Bay

Cd *	Cu	Pb	Zn
9,589 lbs/yr	3,403 lbs/yr	17,638 lbs/yr	174,057 lbs/yr

* (Applies to Upper Bay only, estimated as 40% of Newport Bay volume)

C- Rhine Channel

Mercury (Hg)	Chromium (Cr)
0.0171 kg/yr	5.66 kg/yr

D- Concentration-based Dissolved Metal TMDLs, WLAs and LAs for Newport Bay

	Dissolved saltwater TMDLs and allocations which apply to direct discharges to the bay, including storm drains/channels and metals loading associated with boats	
	Acute	Chronic
Cd* (ug/L)	42	9.3
Cu (ug/L)	4.8	3.1
Pb (ug/L)	210	8.1
Zn (ug/L)	90	81

* (Applies to Upper Bay only, estimated as 40% of Newport Bay volume).

[62] From Total Maximum Daily Loads For Toxic Pollutants San Diego Creek and Newport Bay, California, U.S. EPA – Region 9, established June 14, 2002.

Tables 2 A/B/C/D – Urban Runoff Waste Load Allocations for Organochlorine Compounds (TMDLs promulgated by U.S. EPA)[63]

A- San Diego Creek and Tributaries

Total DDT	Chlordane	Dieldrin	PCBs	Toxaphene
302.8 g/yr	220.3 g/yr	183.4 g/yr	177.7 g/yr	6.2 g/yr

B- Upper Newport Bay

Total DDT	Chlordane	PCBs
207.4 g/yr	120.5 g/yr	609.7 g/yr

C – Lower Newport Bay

Total DDT	Chlordane	Dieldrin	PCBs
76.3 g/yr	12.6 g/yr	4.45 g/yr	303.3 g/yr

D – Rhine Channel

	Total DDT	Chlordane	Dieldrin	PCBs
WLA	0.7 g/yr	0.1 g/yr	0.13 g/yr	4.1 g/yr

Table 3 – Urban Runoff Waste Load Allocation for Selenium – San Diego Creek and Tributaries

(TMDL promulgated by U.S. EPA)[64]

Base flows (<20 cfs)	Small flows (21-181 cfs)	Med. flows (182–814 cfs)	Large Flows (>814 cfs)
0.4 lbs/yr	1.0 lbs/yr	1.0 lbs/yr	5.3 lbs/yr

5. The Regional Board adopted TMDLs, including an implementation plan, for organochlorine compounds in September 2007. These TMDLs must be submitted for approval by the State Board, Office of Administrative Law and EPA. These TMDLs have not yet been submitted to the State Board for its approval. However, stakeholders in the watershed are already taking steps to implement the TMDLs through a Toxicity Reduction and Investigation Program (TRIP) that will address the organochlorine compounds and other toxic pollutants, including metals, in the Newport Bay watershed. These TMDLs will become effective upon approval by the State Board and Office of Administrative

[63] From Total Maximum Daily Loads For Toxic Pollutants San Diego Creek and Newport Bay, California, U.S. EPA – Region 9, established June 14, 2002.

[64] From Total Maximum Daily Loads For Toxic Pollutants San Diego Creek and Newport Bay, California, U.S. EPA – Region 9, established June 14, 2002.

Law but will not supplant the EPA organochlorine compounds TMDLs until they are approved by EPA. Accordingly, upon approval of the Regional Board-adopted organochlorine compounds TMDLs by the State Board and the Office of Administrative Law, the permittees shall comply with both the EPA and Regional Board wasteload allocations specified in Tables 2 A/B/C/D and Table 4, respectively. In accordance with the Regional Board TMDLs, compliance with the allocations specified in Table 4 shall be achieved as soon as possible but no later than December 31, 2015. Upon approval of the Regional Board-approved organochlorine compounds TMDLs by EPA, the applicable wasteload allocations shall be those specified in Table 4.

Table 4 – Urban Runoff Waste Load Allocations for Organochlorine Compounds (TMDLs approved by Santa Ana Regional Water Quality Control Board)[65]

	Total DDT	Chlordane	Total PCBs	Toxaphene
San Diego Creek	128.3 g/yr			1.9 g/yr
Upper Newport Bay	51.8 g/yr	30.1 g/yr	29.8 g/yr	
Lower Newport Bay	19.1 g/yr	11.0 g/yr	78.1 g/yr	

6. The organochlorine compounds are carried by fine sediment into the water column. Since the use of organochlorine pesticides has been banned, the levels of these compounds have been steadily decreasing in the watershed. The implementation plan requires monitoring to verify the decreasing trend and strict controls on sediment discharges. The stakeholders in the San Diego Creek/Newport Bay watershed have an established Regional Monitoring Program (RMP), and in early 2008, initiated the Toxicity Reduction and Investigation Program (TRIP) consistent with the Regional Board-approved implementation plan for the organochlorine compounds TMDLs. Recognizing the difficulties inherent in measuring the allocations presented in Table 4, the permittees shall evaluate the monitoring results with the targets shown in Tables 5A/B and determine the need for any additional control measures to achieve the targets. Monitoring shall be conducted at representative locations within San Diego Creek and Newport Bay and include water column, sediment and fish tissue monitoring. The permittees may use current monitoring locations.

[65] From Resolution No. R8-2007-0024, Table NB-OCs-10.

Tables 5 A /B - Water Column Targets for Protection of Aquatic Life, Wildlife & Human Health[66]

A - San Diego Creek and Tributaries

	Total DDT	Toxaphene
Acute Criterion	1.1 µg/l	0.73 µg/l
Chronic Criterion	0.001 µg/l	0.0002 µg/l
Human Health Criterion	0.00059 µg/l	0.00075 µg/l

B - Upper and Lower Newport Bay

	Total DDT	Chlordane	Total PCBs
Acute Criterion	0.13 µg/l	0.09 µg/l	
Chronic Criterion	0.001 µg/l	0.0004 µg/l	0.03 µg/l
Human Health Criterion	0.00059 µg/l	0.00059 µg/l	0.00017 µg/l

7. Regional Board staff, in collaboration with the stakeholders, is developing TMDLs for metals and selenium that will include implementation plans and monitoring programs and that are intended to replace the EPA TMDLs. The permittees within the Newport Bay watershed shall continue to participate in the development and implementation of these TMDLs. This Order will be reopened to incorporate revised allocations based upon TMDLs, including implementation plans, for metals and selenium approved by the Regional Board, State Board and Office of Administrative Law. As for the organochlorine compounds, the EPA promulgated allocations for these constituents will also remain in effect unless and until EPA approves the Regional Board's TMDLs for these constituents.

8. Selenium is a naturally occurring element in the soil but its presence in surface waters in the Newport Bay watershed is largely the result of changes in the hydrologic regime as the result of extensive drainage modifications. Selenium-laden shallow and rising groundwater enters the storm water conveyance systems and flows into San Diego Creek and its tributaries. Groundwater inputs are the major source of selenium in San Diego Creek and Newport Bay. Currently, there are no economically and technically feasible treatment techniques to remove selenium from the water column.

[66] From Resolution No. R8-2007-0024, Table NB-OCs-4.

The stakeholders have initiated pilot studies to determine the most efficient methods for treatment and removal of selenium. Through the Nitrogen and Selenium Management Program, the watershed stakeholders are developing comprehensive selenium (and nitrogen) management plans, which are expected to form the basis, at least in part, for the selenium implementation plan (and a revised nutrient TMDL implementation plan). A collaborative watershed approach to implement the nitrogen and selenium TMDLs for San Diego Creek and Newport Bay is expected. A proposed Cooperative Watershed Program that will fulfill applicable requirements of the selenium TMDL implementation plan must be submitted by the stakeholders covered by this order within 24 months of adoption of this order, or one month after approval of the selenium TMDLs by OAL, whichever is later. The Program must be implemented upon Regional Board approval. As long as the stakeholders are participating in and implementing the approved Cooperative Watershed Program, they will not be in violation of this order with respect to the nitrogen and selenium TMDLs for San Diego Creek and Newport Bay. In the event that any of the stakeholders does not participate, or if the collaborative approach is not approved or fails to achieve the TMDLs, the Regional Board will exercise its option to issue individual waste discharge requirements or waivers of waste discharge requirements.

9. The permittees with discharges tributary to Coyote Creek or the San Gabriel River shall develop and implement a constituent-specific source control plan for copper, lead and zinc until a TMDL implementation plan is developed. The source control plan shall include a monitoring program and shall be completed within 12 months from the date of adoption of this order. The source control plan shall be designed to ensure compliance with the following wasteload allocations:

Table 6 – Municipal Storm Water Wasteload Allocations - Coyote Creek

	Copper	Lead	Zinc
Dry Weather	0.941 kg/day		
Wet Weather	9.41 kg/day	36.9 kg/day	55.0 kg/day

10. Within 12 months of adoption of this order, the principal permittee, in collaboration with the co-permittees with discharges to the San Gabriel River/Coyote Creek and/or their tributaries, shall develop a monitoring program to monitor dry weather (for copper) and wet weather (for copper,

lead and zinc) flows in Coyote Creek. The monitoring results shall be evaluated against the following numeric targets:

Table 7 – Numeric Targets - Coyote Creek
(total recoverable metals)

	Copper	Lead	Zinc
Dry Weather[67]	3.7 µg/l		
Wet Weather	27 µg/l	106 µg/l	158 µg/l

C. WATERBODIES WITH TMDL IMPLEMENTATION PLANS AND COMPLIANCE SCHEDULES BEYOND THE PERMIT TERM

1. The Regional Board adopted a TMDL implementation plan for fecal coliform bacteria in Newport Bay that included a compliance date for water contact recreation standards no later than December 30, 2013 (within the permit term), and with shellfish standards no later than December 30, 2019. The allocations are shown in the tables below.

Table 8A – Fecal Coliform TMDL and Allocations for Newport Bay
To be achieved no later than December 30, 2013

Urban Runoff Waste Load Allocation for Fecal Coliform	As soon as possible, but no later than December 30, 2013	5-Sample/30-days Geometric Mean less than 200 organisms/100 mL, and not more than 10% of the samples exceed 400 organisms/100 mL for any 30- day period.
Total Maximum Daily Load for Fecal Coliform		5-Sample/30-days Geometric Mean less than 200 organisms/100 mL, and not more than 10% of the samples exceed 400 organisms/100 mL for any 30-day period.
Load Allocations for Fecal Coliform in Agricultural Runoff, including stormwater, Discharges		5-Sample/30-days Geometric Mean less than 200 organisms/ 100 mL, and not more than 10% of the samples exceed 400 organisms/100 mL for any 30-day period.
Load Allocations for Fecal Coliform from Natural Sources in all Discharges	In effect	5-Sample/30-days Geometric Mean less than 200 organisms/100 mL, and not more than 10% of the samples exceed 400 organisms/100 mL for any 30-day period.
Allocations for Vessel Waste		0 MPN/100 mL - No discharge.

[67] Based on saltwater CTR criterion in San Gabriel River estuary.

Table 8B – Fecal Coliform TMDL and Allocations for Newport Bay

Before December 30, 2019

Urban Runoff Waste Load Allocation for Fecal Coliform	As soon as possible, but no later than December 30, 2019	Monthly Median less than 14 MPN/100 mL, and not more than 10% of the samples exceed 43 MPN/100 mL.
Total Maximum Daily Load for Fecal Coliform		Monthly Median less than 14 MPN/100 mL, and not more than 10% of the samples exceed 43 MPN/100 mL.
Load Allocations for Fecal Coliform in Agricultural Runoff, including stormwater, Discharges		Monthly Median less than 14 MPN/100 mL, and not more than 10% of the samples exceed 43 MPN/100 mL.
Load Allocations for Fecal Coliform from Natural Sources in all Discharges		Monthly Median less than 14 MPN/100 mL, and not more than 10% of the samples exceed 43 MPN/100 mL.
Allocations for Vessel Waste	In effect	0 MPN/100 mL - No discharge.

The permittees shall comply with the wasteload allocations for urban runoff in Tables 8A and 8B in accordance with the deadlines in Tables 8A and 8B. Compliance determination for fecal coliform shall be based on monitoring conducted at representative sampling locations within San Diego Creek and Newport Bay. (The permittees may use the current sampling locations for compliance determination.)

2. The fecal coliform TMDL implementation plan includes a number of studies that are expected to inform possible revision of the TMDL, including the wasteload allocations for urban runoff and the implementation plan. The permittees shall revise the Watershed Action Plans to include implementation measures and schedules for further studies related to the TMDL for fecal coliform in Newport Bay, as set forth in the January 2000, March 2000 and April 2000 Newport Bay Fecal Coliform TMDL Technical Reports submitted by the permittees. The permittees within this watershed shall complete the ongoing source identification and characterization plan for urban runoff by December 31, 2009 and continue their participation in the studies and monitoring programs as specified in the implementation plan. Recommendations for an updated TMDL report and revisions to the fecal coliform TMDL shall be provided within twelve months of completion of the Source Identification and Characterization Investigation and Report submittal, as specified in the implementation plan.
3. The fecal coliform TMDL includes waste load allocations for storm water in urban runoff and load allocations in agricultural runoff. The University of California Cooperative Extension and Orange County Coastkeeper are working with the agricultural operators in the area to reduce runoff from their operations.

D. WATERBODIES WITH TMDL IMPLEMENTATION PLANS AND COMPLIANCE SCHEDULES WITHIN THE PERMIT TERM

1. The Regional Board/EPA developed TMDLs for diazinon and chlorpyrifos in San Diego Creek and for chlorpyrifos in Newport Bay. The following allocations are included in the TMDLs (Tables 9A and 9B are extracted from the Implementation Plan[68]). The permittees in the Newport Bay Watershed shall comply with the allocations in Tables 9 A and B.

Table 9A

Diazinon and Chlorpyrifos Allocations for San Diego Creek*

Category	Diazinon (ng/l)		Chlorpyrifos (ng/l)	
	Acute	Chronic	Acute	Chronic
Wasteload Allocation	72	45	18	12.6

Chronic means 4-consecutive day average

* Pursuant to the TMDLs, compliance with these allocations was achieved no later than December 1, 2007

Table 9B

Chlorpyrifos Allocations for Upper Newport Bay*

Category	Acute (ng/l)	Chronic (ng/)
Wasteload allocation	18	8.1

Chronic means 4-consecutive day average

* Pursuant to the TMDLs, compliance with these allocations was achieved no later than December 1, 2007

The Regional Board adopted an implementation plan for these TMDLs. In accordance with the implementation plan, the Regional Monitoring Program was modified to include analysis for organophosphate pesticides and toxicity. The Regional Board also performed simulation studies to predict contaminant concentrations in the Bay. Based on the results of these studies, the Regional Board will reevaluate the TMDLs every three years. The permittees shall continue to participate in any additional monitoring that is needed to confirm that the permittees are in compliance with the allocations.

Compliance determination for diazinon and chlorpyrifos for San Diego Creek shall be based on monitoring conducted at representative monitoring locations within San Diego Creek (the permittees may use current monitoring locations for this purpose).

Compliance determination for chlorpyrifos for Upper Newport Bay shall be based on monitoring conducted at representative monitoring locations within Upper Newport Bay (the permittees may use current monitoring locations for this purpose).

[68] Attachment to Resolution No. R8-2003-0039.

2. The waste load allocations established in the nutrient TMDLs adopted by the Regional Board in 1998 for Newport Bay included 5, 10 and 15 year allocations. The overall allocations for 2012 have been met.

Table 10 - Seasonal Load Allocations of Total Nitrogen for the Newport Bay Watershed (Urban Runoff)[69]

Nutrient TMDL	1990-1997 Loading	2002 Summer Allocation (Apr-Sept)[70]	2007 Summer Allocation (Apr-Sept)[71]	2012 Winter Allocation (Oct-Mar)[72]
Newport Bay Watershed	lbs/year TN[73,74]	lbs/season TN	lbs/season TN	lbs/season TN
Urban runoff	277,131[75]	20,785	16,628	55,442
		5 year target	10 year target	15 year target

Table 11 - Annual Total Nitrogen Load Allocations for San Diego Creek, Reach 2 During Non-Storm Conditions.[76]

	2012 Allocation lbs/day TN[77]
TMDL	14 lbs/day (TN)
Waste Load Allocation (Urban runoff)	5.5 lbs/day (TN)

3. The permittees shall verify, through monitoring or other mechanisms, that they have met the following load allocations for phosphorous for urban runoff (recent

[69] From Attachment to Resolution No. 98-9 as amended by Resolution No. 98-100, Table 5-9b.Compliance dates are as soon as possible but no later than December 31 of the years specified (Table 5-9a of Resolution No. 98-9, as amended).

[70] Compliance to be achieved no later than this date. The Regional Board may require earlier compliance with these targets when it is feasible and reasonable.

[71] See previous footnote.

[72] Total nitrogen winter loading limit applies between October 1 and March 31 when the mean daily flow rate at San Diego Creek at Campus Drive is below 50 cubic feet per second (cfs), and when the mean daily flow rate in San Diego Creek at Campus Drive is above 50 cubic feet per second (cfs), but not as the result of precipitation. Compliance to be achieved no later than this date. The Regional Board may require earlier compliance with these targets when it is feasible and reasonable. Assumes 67 non-storm days.

[73] TIN = (NO3+NH3).

[74] TN = (TIN + Organic N).

[75] Estimated annual average (summer and winter loading).

[76] From Attachment to Resolution No. 98-9 as amended by Resolution No. 98-100, Table 5-9d. Total nitrogen loading limit applies when the mean daily flow rate at San Diego Creek at Culver Drive is below 25 cubic feet per second (cfs), and when the mean daily flow rate in San Diego Creek at Culver Drive is above 25 cubic feet per second (cfs), but not as the result of precipitation.

[77] Compliance to be achieved no later than December 31, 2012. The Regional Board may require earlier compliance with these targets when it is feasible and reasonable.

monitoring data indicate that these target load allocations have been already met).

Table 12 - Annual Total Phosphorous Load Allocations For The Newport Bay Watershed[78]

	2002 Allocation lbs/year TP[79]	2007 Allocation lbs/year TP[80]
TMDL	86,912	62,080
Urban areas	4,102	2,960

The permittees shall comply with the waste load allocations for urban runoff in Tables 10, 11 and 12 in accordance with the schedules in Tables 10, 11 and 12. Compliance determination for nutrients in San Diego Creek and Newport Bay shall be based on monitoring conducted at representative monitoring locations within San Diego Creek and Newport Bay.

4. The permittees shall meet the following target load allocations for sediment in urban runoff by implementing the BMPs contained in Sections 7 and 8 of the DAMP and the "March 1999 Technical Report on the Implementation of the TMDL for Sediment in the Newport Bay Watershed, the October 1999 Preliminary Sediment Load Allocation Analysis for San Diego Creek and Newport Bay, and the February 2000 Sediment Yield and Transport Investigation for San Diego Creek and Newport Bay".

   a) The load allocations for sediment discharges to Newport Bay from urban areas shall not exceed 2,500 tons per year, implemented as a 10-year running annual average.

   b) The load allocations for sediment discharges to San Diego Creek and its tributaries from urban areas shall not exceed 2,500 tons per year, implemented as a 10-year running annual average.

   Compliance determination for sediment in San Diego Creek and Newport Bay shall be based on monitoring conducted at San Diego Creek at Campus, starting from year 2000 and based on a 10-year running average. The data from this monitoring is to be submitted annually on February 27.

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[78] From Attachment to Resolution No. 98-9 as amended by Resolution No. 98-100, Table 5-9c. Compliance dates are as soon as possible but no later than December 31 of the years specified (Table 5-9a of Resolution No. 98-9, as amended).

[79] Compliance to be achieved no later than this date. The Regional Board may require earlier compliance with these targets when it is feasible and reasonable.

[80] See previous footnote.

5. This order may be reopened to include additional requirements based on new or revised TMDLs.

E. COMPLIANCE DETERMINATION WITH TMDLs AND BMP IMPLEMENTATION

1. Except for sediment TMDLs in San Diego Creek and Newport Bay, compliance determinations shall be based on monitoring within the receiving waters. For sediment TMDLs, compliance determination shall be based on monitoring in the Creek.
2. Based on the TMDLs, effluent limits have been specified to ensure consistency with the wasteload allocations. If the monitoring results indicate an exceedance of the wasteload allocations, the permittees shall reevaluate the current control measures and propose additional BMPs/control measures. This reevaluation and proposal for revisions to the current BMPs/control measures (revised plan) shall be submitted to the Executive Officer within 12 months of determining that an exceedance has occurred. Upon approval, the permittees shall immediately start implementation of the revised plan.

XIX. PROGRAM MANAGEMENT/DAMP REVIEW

1. By July 1 of each year, the permittees shall evaluate the DAMP to determine whether any revisions are necessary in order to reduce pollutants in MS4 discharges to the maximum extent practicable. In addition, the first annual review after adoption of this order shall include the following:
   a) Review of the formal training needs of municipal employees
   b) Review of coordinating meeting/training for the designated NPDES inspectors.
2. The annual report shall include the findings of this review and a schedule for any needed revisions or a copy of the amended DAMP with the proposed changes.
3. Upon the effective date of this Order, the permittees shall start implementing the 2007 DAMP. If modifications to the 2007 DAMP are determined to be necessary, the permittees shall prepare and submit DAMP modifications to the Regional Board Executive Officer, for consideration by the Regional Board at a public hearing. Such modifications may include regional and watershed-specific requirements and/or waste load allocations developed and approved pursuant to the TMDL process.
4. The Management Committee shall meet at least six times a year to discuss issues related to permit implementation and regional and statewide issues. Each permittee's designated representative or a designated alternate should attend at least 75% of these meetings.

XX. FISCAL ANALYSIS

1. Each permittee shall secure the resources necessary to meet all requirements of this order.

2. The permittees shall prepare and submit a unified fiscal accountability analysis to the Executive Officer of the Regional Board. The fiscal analysis shall be submitted with the annual report shall, at a minimum, include the following:

   a) Each permittee's expenditures for the previous fiscal year,

   b) Each permittee's budget for the current fiscal year,

   c) A description of the source of funds, and

   d) Each permittee's estimated budget for the next fiscal year.

XXI. PROVISIONS

1. All reports submitted by the permittees as per the requirements in this order for the approval of the Executive Officer shall be publicly noticed and made available on the Regional Board's website, or through other means, for public review and comments. The Executive Officer shall consider all comments received prior to approval of the reports. Any unresolved significant issues shall be scheduled for a public hearing at a Regional Board meeting prior to approval by the Executive Officer.
2. Permittees shall demonstrate compliance with all the requirements in this order and specifically with Section III.2 Discharge Limitations and Section IV. Receiving Water Limitations, through timely implementation of their DAMP and any modifications, revisions, or amendments developed pursuant to this order approved by the Executive Officer or determined by the permittee to be necessary to meet the requirements of this order.
3. The permittees shall, at a minimum, implement all elements of the DAMP. Where the dates in the DAMP are different than those of this order, the dates in this order shall prevail. Any proposed revisions to the DAMP shall be submitted with the annual report to the Executive Officer of the Regional Board for review and approval. All approved revisions to the DAMP shall be implemented as per the time schedules approved by the Executive Officer. In addition to those specific controls and actions required by (1) the terms of this order and (2) the DAMP, each permittee shall implement additional controls, if any are necessary, to reduce the discharge of pollutants in storm water to the maximum extent practicable, as required by this order.
4. The permittees shall comply with Monitoring and Reporting Program NO. R8-2008-0030, and any revisions thereto, which is hereby made a part of this order. The Executive Officer is authorized to revise the Monitoring and Reporting Program to allow the permittees to participate in regional, statewide, national or other monitoring programs in lieu of or in addition to Monitoring and Reporting Program No. R8-2008-0030.
5. Within one year of adoption of this order, the permittees, in coordination with the Orange County Fire Chiefs Association, shall develop a list of appropriate BMPs to be implemented to reduce pollutants from training activities, fire hydrant/sprinkler testing or flushing, non-emergency fire fighting and any BMPs feasible for emergency fire fighting flows.

6. Upon approval by the Executive Officer of the Regional Board, all plans, reports and subsequent amendments required by this order shall be implemented and shall become an enforceable part of this order. Prior to approval by the Executive Officer, these plans, reports and amendments shall not be considered as an enforceable part of this order.
7. The permittees shall report to the Executive Officer of the Regional Board:
   a) Any enforcement actions and discharges of storm or non-storm water, known to the permittees, which may have an impact on human health or the environment,
   b) Any suspected or reported activities on federal, state, or other entity's land or facilities, where the permittees do not have any jurisdiction, and where the suspected or reported activities may be contributing pollutants to waters of the US.

   (Also see reporting requirements in Monitoring and Reporting Program No. R8-2008-0030)
8. The permit application package and special NPDES program requirements contained in 40 CFR 122.21 (a), (b), (d)(2), (f), (p); 122.41 (a), (b), (c), (d), (e), (f), (g), (h), (i), (j), (k), (l); and 122.42 (c) are incorporated into this order by reference.

XXII. PERMIT MODIFICATION

1. In accordance with 40 CFR 122.41(f), this order may be modified, revoked or reissued prior to its expiration date for the following reasons:
   a) To address significant changes in conditions identified in the technical reports required by the Regional Board which were unknown at the time of the issuance of this order;
   b) To incorporate applicable requirements of statewide water quality control plans adopted by the State Water Resources Control Board or any amendments to the Basin Plan approved by the Regional Board, the State Board and, if necessary, by the Office of Administrative Law;
   c) To comply with any applicable requirements, guidelines, or regulations issued or approved under the Clean Water Act, if the requirements, guidelines, or regulations contain different conditions or additional requirements than those included in this order; or,
   d) To incorporate any requirements imposed upon the permittees through the TMDL process.
2. The filing of a request by the permittees for modification, revocation and re-issuance, or termination or a notification of planned changes or anticipated noncompliance does not stay any conditions of this order.

XXIII. PERMIT EXPIRATION AND RENEWAL

1. This order expires on April 1, 2014 and the permittees must file a Report of Waste Discharge (permit application) no later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements (40 CFR

122.41(b)). The Report of Waste Discharge shall, at a minimum, include the following:

a) Any revisions to the Drainage Area Management Plan including, but not limited to, all the activities the permittees propose to undertake during the next permit term, goals and objectives of such activities, an evaluation of the need for additional source control and/or structural BMPs, any proposed pilot studies, etc.;

b) Changes in land use and/or population including land use map updates;

c) Any significant changes to the storm drain systems, outfalls, detention or retention basins or dams and other controls including map updates of the storm drain systems; and,

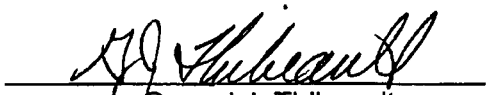
d) Any new or revised program elements and compliance schedule(s) necessary to comply with Section IV of this order.

2. All permit applications (Report of Waste Discharge), annual reports and other information submitted under this order shall be signed by either a principal executive officer or a ranking elected official (40 CFR 122.22(a)(3)) or a duly authorized representative as per 40 CFR 122.22(b).

3. This order shall serve as a National Pollutant Discharge Elimination System (NPDES) Permit pursuant to Section 402(p) of the Clean Water Act, or amendments thereto, and shall become effective ten days after the date of its adoption, provided the Regional Administrator of the EPA has no objections. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

4. Order No. R8-2002-0010 is hereby rescinded.

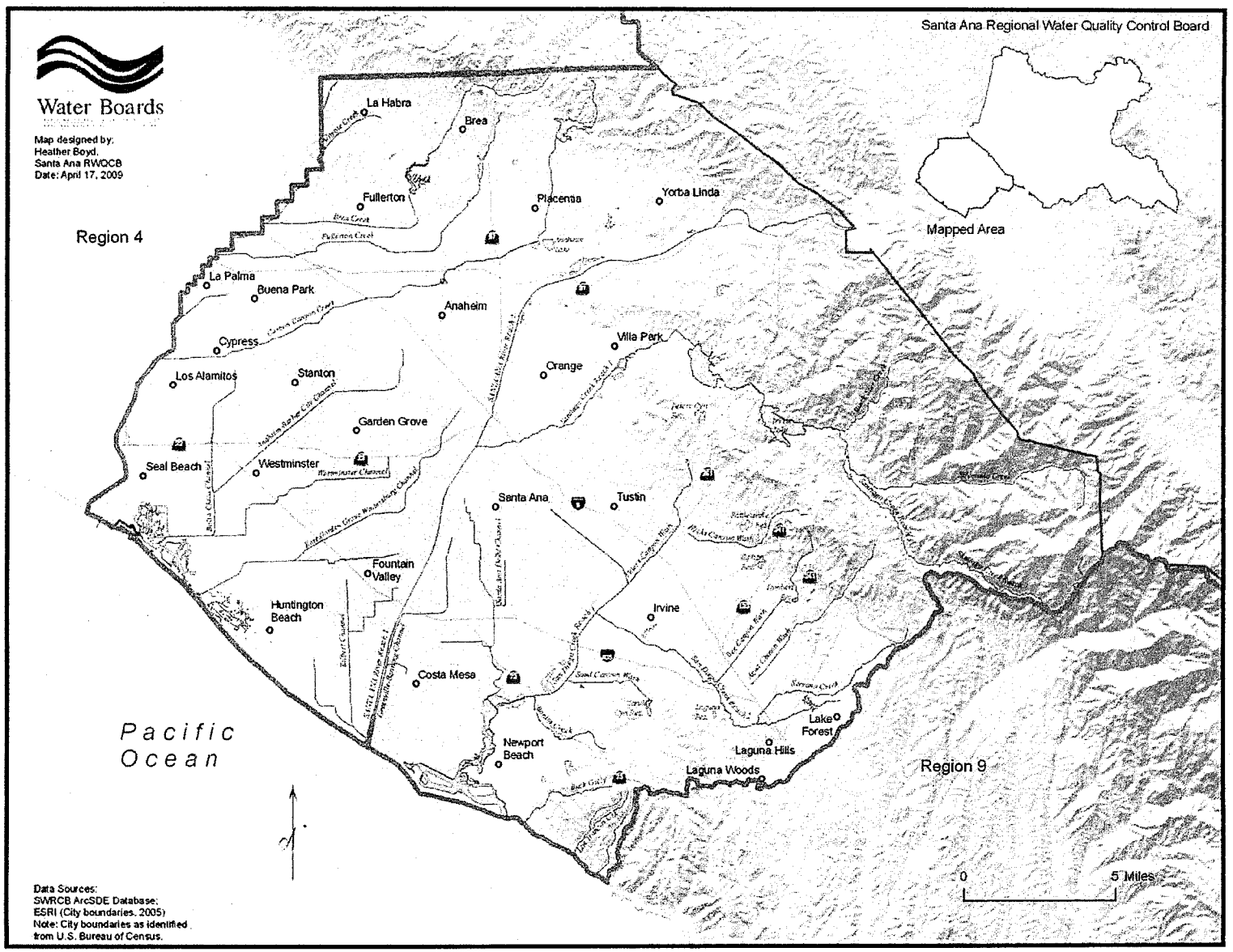
I, Gerard Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on May 22, 2009.



Gerard J. Thibeault
Executive Officer

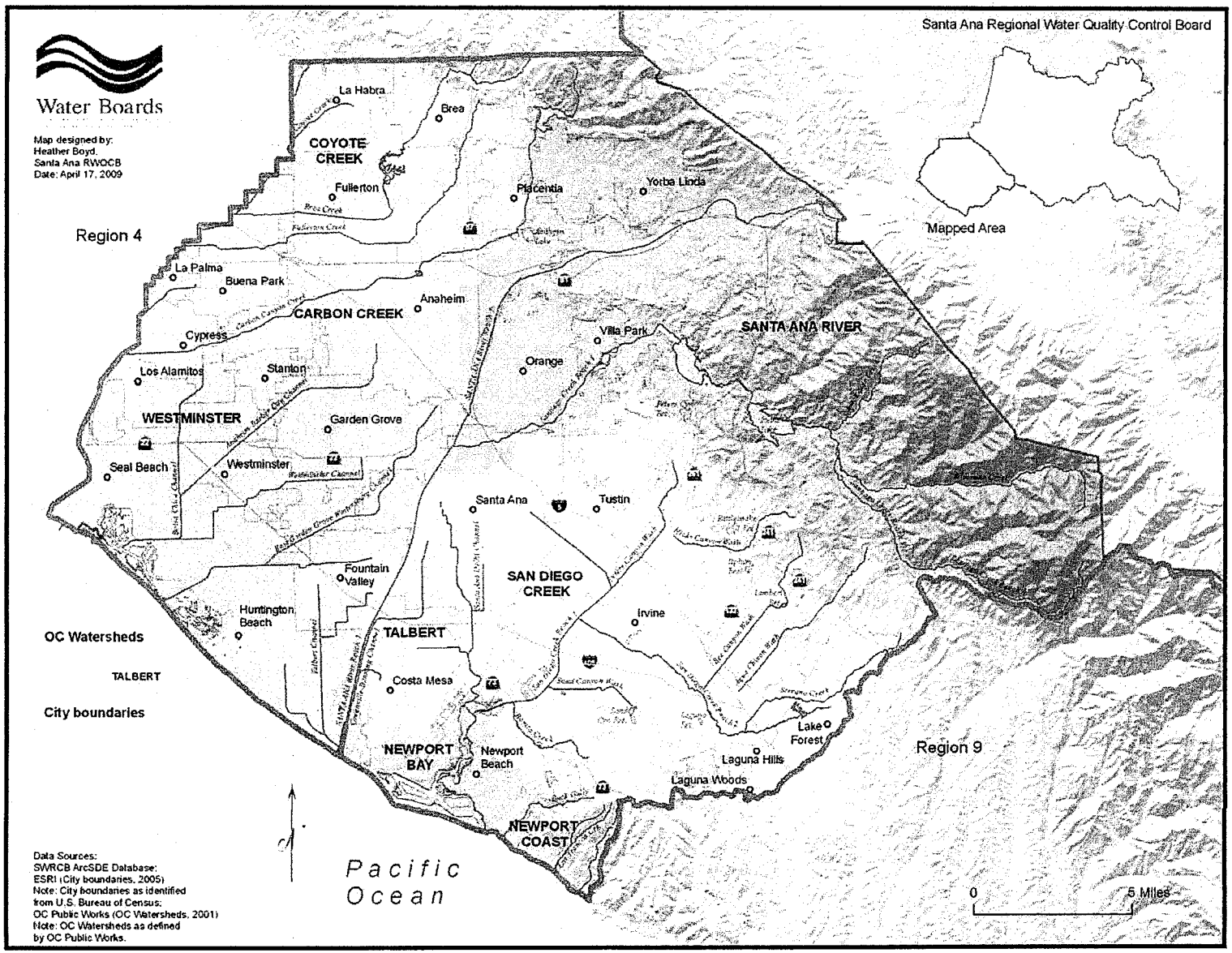
Order No. R8-2009-0030 (NPDES No. CAS618030) – cont'd
The County of Orange, OCFCD, and Incorporated Cities
Area wide Urban Storm Water Runoff

Attachment "A"



Order No. R8-2009-0030 (NPDES No. CAS618030) – cont'd
The County of Orange, OCFCD, and Incorporated Cities
Area wide Urban Storm Water Runoff

Attachment "B"



Order No. R8-2009-0030
Attachment "C"
LIST OF OTHER ENTITIES WITH THE POTENTIAL TO DISCHARGE POLLUTANTS TO THE ORANGE COUNTY STORM WATER SYSTEM

California Department of Transportation (Caltrans), District 12
Southern Pacific Railroad
Atchison, Topeka & Santa Fe Railway Company
Seal Beach Naval Weapons Station
Seal Beach Naval Reserve Center, Los Alamitos
National Forest Service

Universities and Colleges

University of California, Irvine
California State University, Fullerton
Chapman College
Coastline College
Cypress College
Fullerton College
Irvine Valley College
Golden West College
Orange Coast College
Rancho Santiago College

School Districts

Anaheim Elementary School District
Anaheim Union High School District
Brea-Olinda Unified School District
Buena Park Joint Union High School District
Centralia Elementary School District
Cypress Elementary School District
Fountain Valley Union High School District
Fullerton Joint Union High School District
Garden Grove Unified School District
Huntington Beach Elementary School District
Huntington Beach Union High School District
Irvine Unified Union High School District
La Habra Joint Union High School District
Los Alamitos Unified School District
Lowell Joint Union High School District
Magnolia Elementary School District
Newport-Mesa Unified School District
Ocean View Union High School District
Orange Unified School District

Placentia Unified School District
Saddleback Unified School District
Santa Ana Unified School District
Savanna Union High School District
Tustin Unified School District
Westminster Union High School District
Yorba Linda Joint Union High School District

Hospitals

Anaheim General Hospital
Brea Community Hospital
Chapman General Hospital
Children's Hospital of Orange County, Orange
Coastal Communities Hospital, Santa Ana
Fairview Hospital
FHP Hospital, Fountain Valley
Fountain Valley Regional Hospital and Medical Center
Hoag Hospital, Newport Beach
Kaiser Foundation Hospital, Anaheim
Orange County Community Hospital, Buena Park
Pacifica Community Hospital, Huntington Beach
Placentia Linda Community Hospital
Santa Ana Hospital and Medical Center
St. Joseph's Hospital, Orange
U.C. Irvine Medical Center
Vencor Hospital of Orange County, Westminster
Whittier Hospital and Medical Center, Buena Park

Water/Wastewater Agencies

Santa Ana Watershed Project Authority
Irvine Ranch Water District
Los Aliso Water District
El Toro Water District
Mesa Consolidated Water District
San Bernardino County Flood Control District
Riverside County Flood Control & Water Conservation District
L.A. County Department of Public Works
County Sanitation Districts of Orange County
Costa Mesa Sanitary District
Orange County Water District
Metropolitan Water District

State of California
California Regional Water Quality Control Board
Santa Ana Region

Monitoring and Reporting Program No. R8-2009-0030
NPDES No. CAS618030

for
the County of Orange, Orange County Flood Control District,
and
Incorporated Cities of Orange County within the Santa Ana Region
Areawide Urban Storm Water Runoff

I. GENERAL

1. Revisions of the monitoring and reporting program are appropriate to ensure that the permittees are in compliance with requirements and provisions contained in this order. Revisions may be made under the direction of the Executive Officer at any time during the term, and may include a reduction or increase in the number of parameters to be monitored, the frequency of monitoring, or the number and size of samples collected.
2. The Executive Officer is authorized to allow the permittees to participate in statewide, national, or other monitoring programs in lieu of or in addition to this monitoring program.
3. All sample collection, handling, storage, and analysis shall be in accordance with 40 CFR Part 136 or other methods approved by the Executive Officer.
4. The permittees are authorized to complement their monitoring data with other monitoring sources, provided the monitoring conditions and sources are similar to those in the Santa Ana Watershed.
5. Any proposals for revisions to the 2003 Monitoring Plan shall be accompanied by a Quality Assurance Project Plan.

II. OBJECTIVES

The Orange County monitoring program was initiated in the mid 1970s with the goal of protecting key environmental resources. Successive iterations of the Orange County MS4 permit required the permittees to develop and implement comprehensive monitoring programs. During the first part of the third term permit, the permittees continued to implement the 1999 Water Quality Monitoring program. In August 2005, the Executive Officer approved the 2003 Monitoring Program that was developed in accordance with the requirements specified in the third term permit. The 2003 Monitoring Program was based on "The Model Monitoring Program for Municipal Separate Strom Sewer Systems in Southern California" developed by the Southern California Monitoring Coalition. The permittees also participate in the Regional Monitoring Program for San Diego Creek Nutrient TMDL, Southern California Bight Regional Monitoring Program, Southern California Stormwater Monitoring/Research Cooperative Program and other regional monitoring programs. The overall goal of these monitoring programs is to develop and

support an effective watershed and key environmental resources management program. The following are the major objectives:

1. To develop and support an effective municipal urban runoff pollutant source control program.
2. To define water quality status, trends, and pollutants of concern associated with urban runoff and their impact on the beneficial uses of the receiving waters.
3. To characterize pollutants associated with urban runoff and to assess the influence of urban land uses on water quality and the beneficial uses of receiving waters.
4. To identify significant water quality problems related to urban runoff.
5. To identify other sources of pollutants in urban runoff to the maximum extent possible (e.g., atmospheric deposition, contaminated sediments, other non-point sources, etc.)
6. To identify and prohibit illicit discharges.
7. To identify those waters, which without additional action to control pollution from urban storm water discharges, cannot reasonably be expected to attain or maintain applicable water quality standards required to sustain the beneficial uses in the Basin Plan (TMDL monitoring).
8. To determine unit loading rates from different urban land use categories.
9. To determine reference loads and concentrations from unimpacted areas of Orange County including sediment loads from open spaces at the foothills.
10. To determine runoff concentrations and loads as close as possible to the source (e.g., golf courses, restaurants, etc.)
11. To evaluate the effectiveness of existing urban runoff water quality management programs, including an estimate of pollutant reductions achieved by the structural and nonstructural BMPs implemented by the permittees. This should also include a determination of concentrations and unit loads that are achievable upon BMP implementation.
12. To evaluate costs and benefits of proposed municipal storm water quality control programs to the stakeholders, including the public.

The Regional Board recognizes that program modifications may be necessary to attain these objectives and authorizes the Executive Officer to evaluate and to determine adequate progress toward meeting each objective and the need for any modifications to the monitoring and reporting program.

III. MONITORING PROGRAM REQUIREMENTS

1. The permittees shall continue to implement the 2003 Monitoring Program. The permittees shall review the 2003 Monitoring Program on an annual basis and

determine the need for any modifications to the program. Each of the following elements of the program shall be evaluated:

a) Mass Emissions Monitoring. Currently the principal permittee monitors 11 mass emissions stations to estimate the total mass emissions from the MS4; assess trends in mass emissions over time; and to determine if the MS4 is contributing to exceedances of water quality objectives or beneficial uses, by comparing results to the California Toxics Rule (CTR), Basin Plan, Ocean Plan and/or other relevant standards. Samples are collected from the first storm event and two more storm events during the rainy season. A minimum of three dry-weather samples are also collected. Samples from the first rain event each year are analyzed for the entire suite of priority pollutants. All samples are analyzed for metals, pH, TSS, TOC, pesticides/herbicides, and constituents which are known to have contributed to impairment of local receiving waters. An additional 4 mass emissions stations are utilized only for nutrient analysis for TMDL requirements. Dry weather samples are also analyzed for oil and grease. Sediments associated with mass emissions are analyzed for constituents of concern.

b) Estuary/Wetlands Monitoring: Currently the permittees monitor 20 sites in Upper Newport estuary, Talbert Marsh, and Bolsa Chica wetlands areas to determine the effects of storm water and non-storm water runoff associated with increased urbanization on these systems. These monitoring locations include representative areas surrounding channel outfalls and areas away from channel outfalls to enable the determination of storm water and non-storm water effects on sediment chemistry, toxicity, benthic communities, nutrient status, and spatial extent of sediment fate within the estuarine environment.

c) Water Column Toxicity Monitoring: The current monitoring program analyses for toxicity to freshwater and marine species on mass emissions samples to determine the impacts of storm water and non-storm water runoff on toxicity of receiving waters.

d) Sediment: The permittees monitor sediment toxicity at seven stations in Newport Bay and seven stations along Huntington Harbour/Talbert Marsh areas.

e) Bacteriological/Pathogen Monitoring: The permittees currently monitor 9 representative areas along the Orange County coastline and six inland water bodies/channels, for total coliform, fecal coliform, and enterococcus in order to determine the impacts of storm water and non-storm water runoff on loss of beneficial uses to receiving waters. Currently weekly channel monitoring is conducted in San Diego Creek and Santa Ana-Delhi channels by both Orange County Environmental Health and the Orange County monitoring program. The Executive Officer is authorized to allow the permittees to integrate their monitoring efforts with other bacteriological/pathogen monitoring programs.

f) Bioassessment: The permittees currently monitor 12 stations in cooperation with the Southern California Coastal Water Research Project (SCCWRP) in efforts to evaluate the biological index approach for Southern California and to design a research project for developing an Index of Biological Integrity (IBI) for the region. The Executive Officer is authorized to allow the permittees to integrate this element of the monitoring program with the regional bioassessment monitoring initiative being coordinated by the Southern California Monitoring Coalition.

g) Reconnaissance: The permittees are currently conducting dry and wet weather reconnaissance surveys to identify and prohibit illicit discharges.

2. TMDL/303(d) Listed Waterbody Monitoring: The Permittees shall continue to participate in the Regional Monitoring Programs for the San Diego Creek Nutrient TMDL and the Toxics TMDL.

3. In addition, strategies must be revised/developed to evaluate the impacts of storm water or non-storm water runoff on all impairments within the Newport Bay watershed and other 303(d) listed waterbodies. Since the 303(d) listing is dynamic, with new waterbodies and new impairments being identified over time, the permittees shall revise their monitoring plan to incorporate new information as it becomes available.

IV. PROGRAM EFFECTIVENESS ASSESSMENT AND REPORTING

1. All progress reports and proposed strategies and plans required by this order shall be signed by the principal permittee, and copies shall be submitted to the Executive Officer of the Regional Board under penalty of perjury.

2. The permittees shall submit an ANNUAL PROGRESS REPORT to the Executive Officer of the Regional Board and to the Regional Administrator of the U.S. EPA, Region 9, no later than November 15th, of each year. This progress report may be submitted in a mutually agreeable electronic format. At a minimum, annual progress report shall include the following:

a) A review of the status of program implementation and compliance (or non-compliance) with the schedules contained in this order;

b) An assessment of the effectiveness of control measures established under the illicit discharge elimination program and the Drainage Area Management Plan. The effectiveness may be measured in terms of how successful the program has been in eliminating illicit/illegal discharges and reducing pollutant loads in storm water discharges;

c) As assessment of control measures and their effectiveness in addressing pollutants causing or contributing to an exceedance of water quality objectives in receiving waters that are on the 303(d) list of impaired waters.

d) The annual report shall include an overall program assessment. The permittees may use the "Municipal Stormwater Program Effectiveness Assessment Guidance" developed by the California Stormwater Quality Association in May 2007 as guidance for assessing program activities at the various outcome levels. The assessment should include each program element required under this order, the expected outcome and the measures used to assess the outcome. The permittees may propose any other methodology for program assessment using measurable targeted outcomes.

e) Each permittee shall develop and implement a plan and schedule to address program modifications and improvements identified during the program assessment.

f) A summary and analysis of monitoring results from the previous year and any changes to the monitoring program for the following year;

g) A unified fiscal accountability analysis, as described in Section XX., Provision, 2, of this order;

h) A draft workplan which describes the proposed implementation of the DAMP for next fiscal year. The workplan shall include clearly defined tasks, responsibilities, and schedules for implementation of the storm water program and each permittee actions for the next fiscal year;

i) Major changes in any previously submitted plans/policies; and

j) An assessment of the permittees compliance status with the Receiving Water Limitations, Section IV of the Order, including any proposed modifications to the DAMP if the Receiving Water Limitations are not fully achieved.

3. The permittees shall be responsible for the submittal to the principal permittee of all required information/materials needed to comply with this order in a timely manner. All such submittals shall be signed by a duly authorized representative of the permittee under penalty of perjury.

4. The data transmittals to the Regional Board shall be in the form developed by the Stormwater Monitoring Coalition (SMC) and approved by the State Water Resources Control Board in the document entitled "Standardized Data Exchange Formats." This document was developed in order to provide a standard format for all data transfer so that data can universally be shared and evaluated from various programs.

V. REPORTING SCHEDULE

All reports required by this order shall be submitted to the Executive Officer of the Regional Board in accordance with the following schedule:

ITEM	COMPLETION DATE	REPORT DUE DATE
Review planning procedures and CEQA document preparation processes	Within 24 months of adoption	Annual Report
Public Education Committee Meetings	Twice/year	Annual Report
Review DAMP	Annually	Annual Report
Public education workshops	Annually	Annual Report
Update inventory of construction sites and prioritize for inspections	Twice/year	Annual Report
Inspect municipal facilities	Annually	Annual Report
Maintain drainage facilities	80% annually/100% in every two years	Annual Report
Review/revise Implementation Agreement	Within 6 months of adoption	Annual Report
Review/revise Illegal Discharge/Illicit Connection Training Program	Within 6 months of adoption	Annual Report
Evaluate the need for additional debris control measures	Within 12 months of adoption	Annual Report
Complete Public Awareness Survey	July 1, 2012	Annual Report
Review Monitoring Program	Annually	Annual Report
Update industrial site database, including prioritization for inspection	Annually	Annual Report
Update the commercial site database, including prioritization for inspection	Quarterly	Annual Report
Develop a mobile business pilot program	Within 12 months of adoption	Annual Report
Residential common interest area/HOA pilot program	Within 18 months of adoption	Annual Report

Develop a guidance document for preparing conceptual WQMP	Within twelve months of adoption	Annual Report
Review planning documents to ensure water quality protection	Within 24 months of adoption	Annual Report
Report of Waste Discharge	180 days before permit expires	Six months prior to expiration
Annual Report/Fiscal Analysis	November 15th of each year	November 15
Provide training to public agency staff and to contract field operations staff	Once in two years/3 per permit term	November 15
Re-evaluate monitoring program priorities based on previous year's data	Annually	November 15
Evaluate the DAMP	Annually	November 15
Permittee Committee meetings to discuss permit implementation and regional and state-wide issues	Held at least 6 times each year	November 15

Ordered by _____
Gerard J. Thibeault
Executive Officer

TAB "2"

State of California
California Regional Water Quality Control Board
Santa Ana Region
3737 Main Street, Suite 500
Riverside, CA 92501-3348

FACT SHEET

April 24, 2009

ITEM: 12

SUBJECT: Waste Discharge Requirements for the County of Orange, Orange County Flood Control District and the Incorporated Cities of Orange County within the Santa Ana Region, Areawide Urban Storm Water Runoff Management Program, Orange County, Order No. R8-2009-0030 (NPDES No. CAS 618030)

I. INTRODUCTION

The 1972 Clean Water Act (CWA) established the National Pollutant Discharge Elimination System (NPDES) permit program to regulate the discharge of pollutants from point sources to waters of the United States (US). Since then, considerable strides have been made in reducing conventional forms of pollution, such as from sewage treatment plants and industrial facilities, through the implementation of the NPDES program and other federal, state and local programs. The adverse effects of some of the persistent toxic pollutants (DDT, PCB, TBT) were addressed through manufacturing and use restrictions and through cleanup of contaminated sites. On the other hand, pollution from land runoff (including atmospheric deposition, urban, suburban and agricultural) was largely unabated until the 1987 CWA amendments. As a result, diffuse sources, including urban storm water runoff, now contribute a larger portion of many kinds of pollutants than the more thoroughly regulated sewage treatment plants and industrial facilities. The National Urban Runoff Program (NURP) final report to the Congress (US EPA, 1983) concluded that the goals of the CWA could not be achieved without addressing urban runoff discharges. The 1987 CWA amendments established a framework for regulating urban storm water runoff. Pursuant to these amendments, the Santa Ana Regional Water Quality Control Board (Regional Board) began regulating municipal storm water runoff in 1990.

The attached pages contain information concerning an application for renewal of Waste Discharge Requirements and a NPDES permit, which prescribes waste discharge requirements for urban storm water runoff from the cities and unincorporated areas in Orange County within the jurisdiction of the Santa Ana Regional Board. On July 21, 2006, the County of Orange and the Orange County Flood Control District (OCFCD), in cooperation with the cities of Anaheim, Brea, Buena Park, Costa Mesa, Cypress, Fountain Valley, Fullerton, Garden Grove, Huntington Beach, Irvine, Laguna Hills, Laguna Woods, La Habra, La Palma, Lake Forest, Los Alamitos, Newport Beach, Orange, Placentia, Santa Ana, Seal Beach, Stanton, Tustin, Villa Park, Westminster, and Yorba Linda (hereinafter collectively referred to as permittees or dischargers), submitted NPDES Application No. CAS 618030 (Report of Waste Discharge) for re-issuance of their areawide storm water NPDES permit. The permit application was submitted in accordance with the requirements of the previous NPDES permit (Order No. R8-2002-0010, NPDES No. CAS618030) which

expired on January 19, 2007. Additionally, the permit application follows guidance provided by staff of the State Water Resources Control Board (State Board), the Regional Water Quality Control Boards (Regional Boards), and the United States Environmental Protection Agency (US EPA).

On February 20, 2007, Order No. R8-2002-0010, NPDES No. CAS618030, was administratively extended in accordance with 40 CFR Part 122.6 and Title 23, Division 3, Chapter 9, §2235.4 of the California Code of Regulations.

Order No. R8-2009-0030 regulates discharges of urban storm water from the lower Santa Ana watershed to waters of the US, which ultimately drain into the Pacific Ocean.

II. REGULATORY BACKGROUND/CLEAN WATER ACT REQUIREMENTS

Urban runoff includes dry and wet weather flows and storm water runoff (collectively referred to as urban runoff) from urbanized areas through a storm water conveyance system. As water flows over streets, parking lots, construction sites, and industrial, commercial, residential and municipal areas, it can intercept pollutants from these areas and transport them to waters of the US. If appropriate pollution control measures are not implemented, urban runoff may contain pathogens (bacteria, protozoa, viruses), sediment, trash, fertilizers (nutrients, mostly nitrogen and phosphorus compounds), oxygen-demanding substances (decaying matter), pesticides (DDT, Chlordane, Diazinon, Chlorpyrifos), heavy metals (cadmium, chromium, copper, lead, zinc) and petroleum products (oil & grease, PAHs, petroleum hydrocarbons). If not properly managed and controlled, urbanization can change the stream hydrology and increase pollutant loading to receiving waters. As a watershed undergoes urbanization, pervious surface area decreases, runoff volume and velocity increase, riparian and wetland habitat decrease, the frequency and severity of flooding increase and pollutant loading increases. Most of these impacts are due to human activities that occur during and/or after urbanization. The pollutants and hydrologic changes can cause declines in aquatic resources, toxicity to marine organisms, and impact human health and the environment.

However, properly planned high-density development, with sufficient open space and low impact developments, can reduce urban sprawl and problems associated with sprawl. Urban in-fill development can be an element of smart growth, creating the opportunity to maintain relatively natural open space elsewhere in the area. The goal of low impact development is to produce post-construction runoff quality and quantity, to mimic that of pre-construction runoff quality and quantity.

The US EPA recognizes urban runoff as the number one source of estuarine pollution in coastal communities[1]. Studies[2] conducted in the Southern California area and other studies have reported a definite link between storm water runoff from urban areas and pollution in

[1] US EPA, 1999, 40CFR Parts 9, 122, 123, 124, National Pollutant Discharge Elimination System – Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges; Final Rule, 64FR 68727.

[2] Bay, S., Jones, B. H. and Schiff, K, 1999, Study of the Impact of Stormwater Discharge on Santa Monica Bay. Sea Grant Program, University of Southern California; and Haile, R.W., et. al., 1996, An Epidemiological Study of Possible Adverse Health Effects of Swimming in Santa Monica Bay.

nearshore zones. A number of Orange County beaches were closed during 1999 and 2000 due to microbial contamination. One of the studies conducted to determine the source of this microbial contamination indicated that urban runoff may be one of the sources of this contamination. If not properly controlled, urban runoff could be a significant source of pollutants in waters of the US. Table 1 includes a list of pollutants, their sources, and some of the adverse environmental consequences mostly resulting from urbanization.

Table 1[3]. Pollutants/Impacts of Urbanization on Waters of the US (Marine Pollution)

Pollutants	Sources	Effects and Trends
Toxins (e.g., biocides, PCBs, trace metals, heavy metals)	Industrial and municipal wastewaters; runoff from farms, forests, urban areas, and landfills; erosion of contaminated soils and sediments; vessels; atmospheric deposition	Poison and cause disease and reproductive failure; fat-soluble toxins may bioconcentrate, particularly in birds and mammals, and pose human health risks. Inputs into US waters have declined, but remaining inputs and contaminated sediments in urban and industrial areas pose threats to living resources.
Pesticides (e.g., DDT, diazinon, chlorpyrifos)	Urban runoff, agricultural runoff, commercial, industrial, residential, and farm use	Legacy pesticide (DDT, Chlordane, Dieldrin, etc.) use has been banned; still persists in the environment; some of the other pesticide uses are curtailed or restricted.
Biostimulants (organic wastes, plant nutrients)	Sewage and industrial wastes; runoff from farms and urban areas; nitrogen from combustion of fossil fuels	Organic wastes overload bottom habitats and deplete oxygen; nutrient inputs stimulate algal blooms (some harmful), which reduce water clarity, cause loss of seagrass and coral reef, and alter food chains supporting fisheries. While organic waste loadings have decreased, nutrient loadings have increased.
Petroleum products (oil, grease, petroleum hydrocarbons, PAHs)	Urban runoff and atmospheric deposition from land activities; shipping and tanker operations; accidental spills; coastal and offshore oil and gas production activities; natural seepage; PAHs from internal combustion engines	Petroleum hydrocarbons can affect bottom organisms and larvae; spills affect birds, mammals and nearshore marine life. While oil pollution from ships, accidental spills, and production activities has decreased, diffuse inputs from land-based activities have not.
Radioactive isotopes	Atmospheric fallout, industrial and military activities	Few known effects on marine life; bioaccumulation may pose human health risks where contamination is heavy.

[3]Adapted from "Marine Pollution in the United States" prepared for the Pew Oceans Commission, 2001.

Sediments	Erosion from farming, construction activities, forestry, mining, development; river diversions; coastal dredging and mining	Reduce water clarity and change bottom habitats; carry toxins and nutrients; clog fish gills and interfere with respiration in aquatic fauna. Sediment delivery by many rivers has decreased, but sedimentation poses problems in some areas; erosion from coastal development and sea-level rise is a future concern.

Plastics and other debris	Ships, fishing nets, containers, trash, urban runoff	Entangles marine life or is ingested; degrades beaches, wetlands and nearshore habitats. Floatables (from trash) are an aesthetic nuisance and can be a substrate for algae and insect vectors.
Thermal	Cooling water from power plants and industry, urban runoff from impervious	Kills some temperature-sensitive species; displaces others. Generally, less a risk to marine life than thought 20 years ago.
Noise	Vessel propulsion, sonar, seismic prospecting, low-frequency sound used in defense and research	May disturb marine mammals and other organisms that use sound for communication.
Pathogens (bacteria, protozoa, viruses)	Sewage, urban runoff, livestock, wildlife, discharges from boats and cruise ships	Pose health risks to swimmers and consumers of seafood. Sanitation has improved, but standards have been raised.
Alien species	Ships and ballast water, fishery stocking, aquarists	Displace native species, introduce new diseases; growing worldwide problem.

The Clean Water Act (CWA) prohibits the discharge of any pollutant to navigable waters from a point source unless an NPDES permit authorizes the discharge. Efforts to improve water quality under the NPDES program traditionally and primarily focused on reducing pollutants in discharges of industrial process wastewater and municipal sewage. The 1987 amendments to the CWA required municipal separate storm sewer systems (MS4s) and industrial facilities, including construction sites, to obtain NPDES permits for storm water runoff from their facilities. On November 16, 1990, the United States Environmental Protection Agency (EPA) promulgated the final Phase I storm water regulations. The storm water regulations are contained in 40 CFR Parts 122, 123 and 124.

The areawide NPDES permit for Orange County areas within the Santa Ana Regional Board's jurisdiction is being considered for renewal in accordance with Section 402 (p) of the CWA and all requirements applicable to an NPDES permit issued under the issuing authority's discretionary authority. The requirements included in this order are consistent with the CWA, the federal regulations governing urban storm water discharges, the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan), the California Water Code, and the State Board's Plans and Policies, including the Ocean Plan.

The Basin Plan is the basis for the Regional Board's regulatory programs. The Plan was developed and is periodically reviewed and updated in accordance with relevant federal and state law and regulations, including the Clean Water Act and the California Water Code. As required, the Basin Plan designates the beneficial uses of the waters of the region and specifies water quality objectives intended to protect those uses. (Beneficial uses and water quality objectives, together with an antidegradation policy, comprise federal "water quality standards"). The Basin Plan also specifies an implementation plan, which includes certain discharge prohibitions. In general, the Basin Plan makes no distinctions between wet and dry weather conditions in designating beneficial uses and setting water quality objectives, i.e., the beneficial uses, and correspondingly, the water quality objectives are assumed to apply year-round. (Note: In some cases, beneficial uses for certain surface waters are

designated as "I", or intermittent, in recognition of the fact that surface flows (and beneficial uses) may be present only during wet weather.) Most beneficial uses and water quality objectives were established in the 1971, 1975 and 1983 Basin Plans.

Water Code Section 13241 requires that certain factors be considered, at a minimum, when water quality objectives are established. These include economics and the need for developing housing in the Region. (The latter factor was added to the Water Code in 1987).

During the previous permit (R8-2002-0010) development process, the permittees raised an issue regarding compliance with Section 13241 of the California Water Code with respect to water quality objectives for wet weather conditions, specifically the cost of achieving compliance during wet weather conditions and the need for developing housing within the Region and its impact on urban storm water runoff. In response to this request, Regional Board staff in collaboration with the permittees in the region has organized a Storm Water Quality Standards Task Force. In the meantime, the provisions of this order will result in reasonable further progress towards the attainment of the existing water quality objectives, in accordance with the discretion in the permitting authority recognized by the United States Court of Appeals for the Ninth Circuit in Defenders of Wildlife v Browner, 191 F.3d 1159, 1164 (9th Cir. 1999).

III. BENEFICIAL USES

Storm water flows that are discharged to municipal storm drain systems in Orange County are tributary to various water bodies (inland surface streams, bays and tidal prisms, ocean waters, lakes and reservoirs) of the state. The beneficial uses of these water bodies include municipal and domestic supply, agricultural supply, industrial service and process supply, groundwater recharge, navigation, hydropower generation, water contact recreation, non-contact water recreation, commercial and sportfishing, warm freshwater habitat, cold freshwater habitat, preservation of biological habitats of special significance, wildlife habitat, preservation of rare, threatened or endangered species, marine habitat, shellfish harvesting, spawning, reproduction and development of aquatic habitats and estuarine habitat. The ultimate goal of this storm water management program is to protect the water quality standards of the receiving waters.

IV. PERMITTED AREA

The permitted area is delineated by the Los Angeles County-Orange County boundary line on the northwest, the San Bernardino-Orange County boundary line on the north and northeast, the Riverside County-Orange County boundary line on the east, the Santa Ana Regional Board-San Diego Regional Board boundary line on the southeast, and the Pacific Ocean on the southwest (see Attachment A of the order). The permittees serve a population of approximately 3.006[4] million, occupying an area of approximately 789 square miles (including unincorporated areas and the limits of 34 cities, 26 of which are within the Santa Ana Regional Board's jurisdiction). The permittees have jurisdiction over, and/or maintenance responsibility for, storm water conveyance systems within Orange County. The County's systems include an estimated 400 miles of storm drain

[4] SCAG County Population Forecasts for 2005 (this is for the entire County) ((http://www.eltoroairport.org/issues/population.html)

systems. A major portion of the urbanized areas of Orange County drains into water bodies within this Regional Board's jurisdiction. Storm water discharges from urbanized areas consist mainly of surface runoff from residential, commercial, and industrial developments. In addition, there are storm water discharges from agricultural land uses, including farming and animal operations. However, the CWA specifically excludes agricultural discharges from regulation under this program. Other areas of the County not addressed or which are excluded by the storm water regulations and areas not under the jurisdiction of the permittees are excluded from the area requested for coverage under this permit. These excluded areas and activities include:

1. Federal lands and state properties, including, but not limited to, military bases, national forests, hospitals, schools, colleges, universities, and highways;
2. Native American tribal lands; and
3. Utilities and special district properties.

Discharges from the permitted area drain into the Pacific Ocean. The watersheds regulated under this order generally referred to as the San Diego Creek/Newport Bay watershed and the Lower Santa Ana River Basin.

V. WATERSHED MANAGEMENT/LOWER SANTA ANA RIVER BASIN

To manage the water resources of the Region efficiently, it is critical to have a holistic approach. The entire storm drain system in Orange County is not controlled by a single entity; the County of Orange, the OCFCD, several cities, Caltrans, US Army Corps of Engineers and a number of other entities own, operate and/or manage the storm drain systems. In addition to the cities, the County and the OCFCD, there are a number of other significant contributors of storm water runoff to these storm drain systems. These include: large institutions such as the State University facilities, schools, hospitals, etc.; federal facilities such as Department of Defense facilities; State agencies such as Caltrans; water and wastewater management agencies such as Orange County Water District, Metropolitan Water District etc.; the National Forest Service; state parks; and entertainment centers such as Disneyland. The quality and quantity of storm water runoff into and out of Orange County also depends upon runoff from San Bernardino and Riverside County areas that are tributary to Orange County. Some of the runoff from Orange County enters the San Gabriel River or systems controlled by other entities, such as the Los Angeles County Flood Control District, which are under the Los Angeles Regional Board's jurisdiction.

Some of these facilities, such as Disneyland and Caltrans, are already under individual permits for storm water runoff. The Los Angeles and San Diego Regional Boards have also issued areawide storm water permits for areas within their jurisdiction.

Cooperation and coordination among all the stakeholders is essential for efficient and economical management of the watershed. It is also critical to manage nonpoint sources at a level consistent with the management of urban storm water runoff in a watershed, in order to prevent or remedy water quality impairment. Regional Board staff will facilitate coordination of monitoring and management programs among the various stakeholders, where necessary.

An integrated watershed management approach is consistent with the Strategic Plan (2008-2012) for the State and Regional Boards. A watershed wide approach is also necessary for implementation of the load and waste load allocations developed under the TMDL process (see Section B, below). The MS4 permittees and all the affected entities should be encouraged to participate in regional or watershed solutions instead of project-specific and fragmented solutions.

The pollutants in urban runoff originate from a multitude of sources and effective control of these pollutants requires a cooperative effort of all the stakeholders and many regulatory agencies. Every stage of urbanization should be considered in developing appropriate urban runoff pollution control methodologies. The program's success depends upon consideration of pollution control techniques during planning, construction and post-construction operations. At each stage, appropriate pollution prevention measures, proper site design considerations, source control measures and, if necessary, treatment techniques should be considered.

1. SUB-WATERSHEDS AND MAJOR CHALLENGES

The Lower Santa Ana River Watershed can be subdivided into five tributary watersheds:

a. *The San Gabriel River Drainage Area:* Carbon Canyon Creek and Coyote Creek drain into the San Gabriel River. Only a portion of the San Gabriel River is within the Santa Ana Regional Board's jurisdiction. The River empties into the Pacific Ocean at the boundary between two Regional Boards (Regions 4 and 8). Region 4 regulates most of the discharges to the San Gabriel River.

The Los Angeles Regional Board (Region 4) listed the San Gabriel River as an impaired waterbody on the CWA Section 303(d) list of impaired waters. It is listed for ammonia, toxicity, algae, eutrophication, pH, odors, low dissolved oxygen, trash, lead, arsenic, copper, silver, mercury (tissue), coliform, DDT, PCBs, chlordane, and abnormal fish histology. A trash TMDL for the East Fork of the River was adopted by the Regional Board (Region 4) and approved by the US EPA. On July 13, 2006, the Los Angeles Regional Board adopted TMDLs for metals in the San Gabriel River watershed. However, because of the state's inability to meet the March 2007 deadline for an approved TMDL prescribed in a consent decree (Heal the Bay Inc., et al. v. Browner C98-4825 SBA), on March 26, 2007, the EPA promulgated TMDLs for metals and selenium for the San Gabriel River. The upper portions of Coyote Creek flow through Orange County to join the San Gabriel River above the tidal prism. Other unnamed tributaries located in northwestern Orange County also discharge into the San Gabriel River estuary. The EPA promulgated TMDLs include wet weather wasteload allocations for Coyote Creek for copper, lead and zinc and dry weather wasteload allocations for copper for Coyote Creek. The permittees are expected to implement programs and policies consistent with the metals and selenium TMDLs for the San Gabriel River

watershed. This includes constituent-specific source control programs or other equally effective programs to control the discharge of copper, lead and zinc into Coyote Creek and other tributaries in Orange County that discharge into the San Gabriel River.

b. *The Huntington Harbour and Bolsa Bay Drainage Area:* This includes Anaheim Bay, Huntington Habour, Bolsa Bay, and Bolsa Chica Ecological Reserve. A number of flood control channels discharge into this area, including Anaheim-Barber, East Garden Grove-Wintersberg, and Bolsa Chica Channel. The area historically had a number of oil production facilities and an oil-well drilling mud disposal area. There are still some production wells in the area. Certain areas of the Bolsa Chica wetlands have been impacted by the oil production and related activities in the area. The drilling mud disposal area has been cleaned up, and through a collaborative effort of a number of state, federal, and local agencies and other entities the Bolsa Chica wetlands have been restored.

   Anaheim Bay and Huntington Harbour are listed as impaired waterbodies (see Table 2), and TMDLs will be developed to address the pollutants causing the impairment.

c. *The Santa Ana River Drainage Area:* This includes Santa Ana River Reaches 1 and 2, Santiago Creek Reaches 1, 2, 3 and 4, Silverado Creek, Black Star Creek, Talbert Channel, Talbert Marsh and Greenville-Banning Channel. The major problem for the area is microbial contamination of the coastal zone. The initial studies conducted by the Orange County Sanitation District determined that their facilities were probably not the cause of the microbial problems in the nearshore zone. Subsequently, the Executive Officer issued a directive to the County of Orange and the cities of Santa Ana, Costa Mesa, Fountain Valley and Huntington Beach (urban storm water dischargers to this tributary area) under Section 13267 of the Water Code. This directive required the dischargers to provide a plan to identify, characterize and control sources that contributed to the microbial problems in the Huntington Beach area. Several studies were conducted to trace the source(s) of the microbial contamination. These studies could not conclusively determine the sources of microbial contamination in the Huntington Beach area. However, urban runoff was identified as one of the sources. The permittees have diverted most of the dry-weather flows to the sanitary sewer system and significant improvements have been noted in the beach water quality.

d. *The Newport Bay Drainage Area:* Tributaries include Bonita Creek, Serrano Creek, Peters Canyon Wash, Hicks Canyon Wash, Bee Canyon Wash, Borrego Canyon Wash, Agua Chinon Wash, Laguna Canyon Wash, Rattlesnake Canyon Wash, Sand Canyon Wash, San Diego Creek Reaches 1 and 2, and San Joaquin Freshwater Marsh.

   The Newport Bay watershed has a number of impaired waterbodies listed under Section 303(d) of the CWA (see Section 2, below for

details). The impairments are mostly due to nutrients, sediment, pesticides, pathogens and metals. To date, TMDLs have been developed for nutrients, sediment, and fecal coliform bacteria and some of the pesticides (diazinon and chlorpyrifos). These TMDLs are being implemented. The current and future (year 2012) targets for the nutrient TMDLs are already being met. However, Board staff is currently reevaluating the nutrient TMDLs in light of evidence that there remains impairment of these waters due to eutrophication. In addition, toxics TMDLs were promulgated by USEPA on June 14, 2002, including TMDLs for metals and selenium, and a TMDL specific to the Rhine Channel located in Lower Newport Bay. The Regional Board is in the process of developing TMDL implementation plans for these TMDLs.

The Irvine Ranch Water District (IRWD), which provides sewage collection and treatment services for most areas in this watershed, has been also accepting dry weather flows from some of the storm sewer systems. The IRWD constructed a number of water quality treatment wetlands for treating urban storm water runoff. These treatment wetlands are strategically located to capture and treat flows from different portions of the watershed. The IRWD also sponsored legislation that authorizes the District to collect storm water fees for maintenance of these treatment wetlands. These treatment wetlands are designed to remove sediment and nutrients from urban runoff but may be less efficient in removing pathogens and toxics (metals, pesticides, etc.). It is anticipated that a combination of site design, source control and other best management practices and these treatment wetlands will help to control the discharge of pollutants in urban runoff.

e *Irvine Coast and Newport Coast Areas of Special Biological Significance (ASBSs)* The Ocean Plan has 35 designated areas of special biological significance throughout the State; two of these ASBSs are within the Santa Ana Region, Irvine Coast Areas of Special Biological Significance, Newport Coast Areas of Special Biological Significance. The ASBSs require protection of species or biological communities to the extent that alteration of natural water quality is undesirable. The Crystal Cove area, which is within the Irvine Coast ASBS, is currently experiencing increased urban runoff from new developments in the area. The Ocean Plan contains a prohibition on discharges of wastes to ASBS. The State Board has developed conditions for special protection of ASBSs. All waste discharges to the ASBS are governed by the prohibition in the Ocean Plan are subject to the special protections prescribed by the State Board.

2. CWA SECTION 303(d) LIST AND TMDLs:

The 2006 water quality assessment conducted by the Regional Board identified a number of waterbodies within the Region as impaired waterbodies, under Section 303(d) of the CWA. These are waterbodies where the designated beneficial uses are not met and/or the water quality objectives are being violated. These waterbodies were placed on the CWA Section 303(d) list of impaired waters. The impaired waterbodies in Orange County within the Santa Ana Regional Board's jurisdiction are listed in Table 2.

Federal regulations require that a total maximum daily load (TMDL) be established for each 303(d) listed waterbody for each of the pollutants causing impairment. The TMDL is the total amount of the problem pollutant that can be discharged while water quality standards in the receiving water are attained, i.e., water quality objectives are met and the beneficial uses are protected. It is the sum of the individual wasteload allocations (WLA) for point source inputs, load allocations (LA) for non-point source inputs and natural background, with a margin of safety. The TMDLs are the basis for limitations established in waste discharge requirements. TMDLs have been developed for sediment and nutrients for San Diego Creek and Newport Bay and for fecal coliform bacteria in Newport Bay. The stakeholders in this watershed are collaborating in the development and implementation of the TMDLs. The Regional Board's Executive Officer has issued requirements for the submittal and implementation by the responsible parties of plans and schedules to address the TMDL requirements.

Table 2. Clean Water Act Section 303(d) Listed Waterbodies

Water Body	Hydro Unit	Pollutant Stressor	Source	Priority	Size Affected	Unit	TMDL End Date
Anaheim Bay	80111000	Nickel[5]	Source Unknown	Medium	402	Acres	2019
		Dieldrin[6]	Source Unknown	Medium	402	Acres	2019
		PCBs[7]	Source Unknown	Medium	402	Acres	2019
		Sediment Toxicity	Source Unknown	Medium	402	Acres	2019
Balboa Beach	80114000	Pesticides[8]	Source Unknown	Medium	1.8	Miles	2019
		PCBs	Source Unknown	Medium	1.8	Miles	2019
Bolsa Chica State Beach	80111000	Metals (copper and nickel)	Source Unknown	Medium	2.6	Miles	2019
Buck Gully Creek	80111000	Pathogens	Source Unknown	Medium	0.3	Miles	2019

[5] EPA listing
[6] EPA listing
[7] EPA listing
[8] DDT and Dieldrin

Huntington Beach State Park	80111000	Pathogens (Entrococcus and indicator bacteria)	Source Unknown	Medium	5.8	Miles	2019
		PCBs	Source Unknown	Medium	5.8	Miles	2019
Huntington Harbour	80111000	Metals (copper, lead, nickel)	Source Unknown	Medium	221	Acres	2019
		Pathogens	Urban Runoff/Storm Sewers	Medium	221	Acres	2019
		Chlordane	Source Unknown	Medium	221	Acres	2019
		PCBs	Source Unknown	Medium	221	Acres	2019
		Sediment Toxicity	Source Unknown	Medium	221	Acres	2019
Los Trancos Creek (Crystal Cove Creek)	80111000	Pathogens (fecal coliform, total coliform)	Source Unknown	Medium	0.19	Miles	2019
Newport Bay, Lower	80111000	Nutrients	Source Unknown	High	767	Acres	1999
		Chlordane	Source Unknown	Medium	767	Acres	2019
		DDT	Source Unknown	Medium	767	Acres	2019
		Copper	Source Unknown	High	767	Acres	2007
		PCBs	Source Unknown	Medium	767	Acres	2019
		Sediment Toxicity	Source Unknown	Medium	767	Acres	2019

Newport Bay, Upper Ecological Reserve	80111000	Nutrients	Source Unknown	High	653	Acres	1999
		Copper	Source Unknown	High	653	Acres	2007
		Chlordane	Source Unknown	Medium	653	Acres	2019
		Metals	Urban Runoff Storm Sewers	Medium	653	Acres	2019
		DDT	Source Unknown	Medium	653	Acres	2019
		PCBs	Source Unknown	Medium	653	Acres	2019
		Sediment Toxicity	Source Unknown	Medium	653	Acres	2019
Peters Canyon Channel	80111000	Pesticides (DDT, Toxaphene)	Source Unknown	Medium	3	Miles	2019
Rhine Channel	80114000	Metals (copper, lead, mercury, zinc)	Source Unknown	Medium	20	Acres	2019
		PCBs	Source Unknown	Medium	20	Acres	2019
		Sediment Toxicity	Source Unknown	Medium	20	Acres	2019

San Diego Creek, Reach 1	80111000	Nutrients	Source Unknown	High	7.8	Miles	1999
		Selenium	Source Unknown	High	7.8	Miles	2007
		Fecal Coliform	Urban Runoff/Storm Sewers Other Urban Runoff	Medium	7.8	Miles	2019
		Toxaphene	Source Unknown	Medium	7.8	Miles	2019
San Diego Creek Reach 2	80111000	Nutrients	Agriculture, Urban Runoff/Storm Sewer, Groundwater Loadings	High	6.3	Miles	1999
		Metals	Urban Runoff/Storm Sewers	High	6.3	Miles	2007
Santiago Creek R4	80112000	Salinity/ TDS/ Chlorides	Source Unknown	Low	9.8	Miles	2019
Seal Beach	80111000	Enterococcus	Source Unknown	Low	0.53	Miles	2019
		PCBs	Source Unknown	Low	0.53	Miles	2019
Silverado Creek	80112000	Pathogens	Unknown Nonpoint Source	Low	11	Miles	2019
		Salinity/ TDS/ Chlorides	Unknown Nonpoint Source	Low	11	Miles	2019

The proposed order includes numeric effluent limits based on the wasteload/load allocations developed and approved by the Regional Board, State Board, Office of Administrative Law and the EPA.

VI. FIRST, SECOND AND THIRD TERM PERMITS: STORM WATER POLLUTION CONTROL PROGRAMS/POLICIES

Prior to EPA's promulgation of the final storm water regulations, the counties of Orange, Riverside and San Bernardino applied for areawide NPDES permits for storm water runoff. On July 13, 1990, the Regional Board issued Order No. 90-71 to the permittees (first term permit). On March 8, 1996, the Board adopted Order No. 96-31 (second term permit). On January 18, 2002, the Board adopted Order No. R8-2002-0010 (third term permit). These permits included the following requirements as outlined in the storm water regulations:

a. Prohibited non-storm water discharges to the MS4s, with certain exceptions.

b. Required the municipalities to develop and implement a drainage area management plan (DAMP) to reduce pollutants in urban storm water runoff to the maximum extent practicable (MEP[9]).

c. Required the discharges from the MS4s to meet water quality standards in receiving waters.

d. Required the municipalities to identify and eliminate illicit connections and illicit discharges to the MS4s.

e. Required the municipalities to establish and maintain legal authority to enforce storm water regulations.

f. Required monitoring of dry weather flows, storm flows, and receiving water quality, and required program assessment.

g. Required the permittees to identify and inspect construction sites and industrial and commercial facilities.

h. Required the permittees to develop and implement a Water Quality Management Plan to address post-development runoff.

The following programs and policies have been implemented or are being implemented by the permittees. During the first term permit, the permittees developed a Drainage Area Management Plan (1993 DAMP) which was approved by the Executive Officer of the Regional Board on April 29, 1994. The 1993 DAMP included a number of best management practices (BMPs) and a very extensive public education program. The 1993 DAMP was updated a number of times and a draft 2007 version of the DAMP was submitted with the permit renewal application. The monitoring program for the first term permit included 89 monitoring stations within streams and flood control channels and 21 stations within the bays, estuaries and the ocean. The findings and conclusions from these monitoring stations and monitoring programs of other municipal permittees (Riverside and San Bernardino Counties and others) were used to identify problem areas and to re-evaluate the monitoring program and the effectiveness of the BMPs. The direction of these program elements were depended upon the results of the ongoing studies and a holistic approach to watershed management.

Other elements of the storm water management program included identification and elimination of illicit discharges and illicit connections and establishment of adequate legal authority to control pollutants in storm water discharges. The permittees have completed a survey of their storm drain systems to identify illicit discharges/illicit connections and have adopted appropriate ordinances to establish legal authority. Some of the more specific achievements during the previous term permits are as follows:

1. *Interagency Agreements and Coordination*: Established a program management structure through an Interagency Implementation Agreement. Participated in regional monitoring programs and focused special studies/research programs.

[9] Maximum Extent Practicable (MEP) means to the maximum extent feasible, taking into account equitable considerations of synergistic, additive, and competing factors, including but not limited to, gravity of the problem, technical feasibility, fiscal feasibility, public health risks, societal concerns, and social benefits.

Worked with the County Sanitation Districts, Health Care Agency, Integrated Waste Management Agency, and the Water Districts to provide a consistent urban storm water pollution control message to the public. Worked with Caltrans, other transportation agencies, the Storm Water Quality Task-Force, and others to further study and understand urban runoff problems and control measures. Supported regional studies to improve storm water management programs and monitoring programs through the Southern California Water Research Project.

i. *Ordinances, Plans and Policies:* Adopted a Model Water Quality Ordinance and Enforcement Consistency Guide; prepared a Water Pollution Enforcement Implementation Plan, Public Agency Activity BMP guideline, a Public Pesticide and Fertilizer Use Guideline, Criteria for MS4 Inspections, and a Water Quality Monitoring Plan, Model Water Quality Management Plan; and established a Technical Advisory Committee for overall program development and implementation.

j. *Program Review*: A number of existing programs were reviewed to determine their effectiveness in combating urban pollution and to recommend alternatives and or improvements, including litter control measures, street sweeping frequencies and methods, public agency activities and facilities, illicit discharges and illicit connections to the MS4 systems, and existing monitoring programs.

k. *Public Education:* A number of steps were taken to educate the public, businesses, industries, and commercial establishments regarding their role in urban runoff pollution controls. The appropriate industrial dischargers were notified of the storm water regulatory requirements. For a number of unregulated activities, BMP guidance (Fact Sheet) was developed (mobile detailing, automotive service centers, restaurants, pool maintenance). Finally, a countywide hotline was established for reporting any suspected water quality problems. The addition of the Residential Program to the fourth term permit includes requirements for permittees to identify residential areas and activities therein that are potential sources of pollutants and to develop Fact Sheets/BMPs for each and encourage residents to implement the pollution prevention measures.

l. *Public Agency Training:* Training was provided to public agency employees on how to implement New Development Guidelines and Public Works BMPs, how to conduct investigations of reported water quality problems and how to conduct inspections of industrial facilities, construction sites and public work projects. The municipal planners were trained to recognize water quality related problems in proposed developments. The fourth term permit includes additional training program requirements for storm water program managers and inspection staff. This was added following information collected during Regional Board staff audits of permittee's storm water management programs, which found that many of the permittee's storm water staff were inadequately trained to properly implement the required program elements contained within the third term permit.

m. *Related Activities:* Flood control channels were stabilized, sediment basins were constructed, and debris booms were installed; illicit connections were eliminated and illicit connections to the MS4s were documented , eradicated or permitted. During the third term permit, litter/trash control ordinances were reviewed and revised, and trash characterization programs were encouraged. Within the fourth term permit, a trash control element has been added as a requirement.

VII. PRIOR TERM PERMITS - WATER QUALITY IMPROVEMENTS

An accurate and quantifiable measurement of the impact of the above stated storm water management programs is difficult for a variety of reasons, such as the variability in chemical water quality data, the incremental nature of BMP implementation, lack of baseline monitoring data, and the existence of some of the programs and policies prior to initiation of formal storm water management programs. There are generally two accepted methodologies for assessing water quality improvements: (1) conventional monitoring such as chemical-specific water quality monitoring; and (2) non-conventional monitoring such as monitoring of the amount of household hazardous waste collected and disposed off at appropriate disposal sites, amount of used oil collected, debris removed by the debris boom, etc.

The water quality monitoring data collected during prior permit terms did not indicate any discernible trends or significant changes. However, the most recent monitoring data indicate that there are reductions in the mass loading rates for some of the metals like copper and zinc and improvements in beach water quality after diversion of dry weather flows to the sanitary sewers. The non-conventional monitoring data also indicate that other programs and policies have been very effective in keeping a significant quantity of wastes from being discharged into waters of the US.

During the second and third term permits, there was an increased focus on watershed management initiatives and coordination among the municipal permittees in Orange, Riverside and San Bernardino Counties. These efforts resulted in a number of regional monitoring programs and other coordinated program and policy developments.

It is anticipated that with continued implementation of the revised DAMP and other requirements specified in this order, including low impact developments, the goals and objectives of the storm water regulations will be met, including protection of water quality standards for all receiving waters.

VIII. FUTURE DIRECTION/2007 DRAFT DAMP

The NPDES permit renewal application included a revised draft of the DAMP (2007 DAMP) that includes programs and policies the permittees are proposing to implement during the fourth term permit. The 2007 draft DAMP is the principal guidance document for urban storm water management programs in Orange County and includes the following major components:

l. Continues to provide a framework for the program management activities and plan development.

n. Continues to provide the legal authority to control discharges to the MS4s.

o. Improves current BMPs to achieve further reduction in pollutant loading to the MS4s.

p. Continues to include programs and policies for public education processes and to seek public support for urban storm water pollution prevention BMPs.

q. Increases requirements for controls on new developments and significant redevelopments.

r. Continues to ensure that construction sites implement appropriate pollution control measures during construction and effective post-construction water quality management plan (WQMP) implementation.

s. Continues to ensure that industrial sites are adequately identified, categorized and inspected for compliance with storm water regulations.

t. Continues to include programs and policies to eliminate illicit discharges and illicit connections to the MS4s.

u. Continues to include monitoring of urban runoff.

v. Includes provisions for any special focus studies and/or control measures.

A combination of these programs and policies and the requirements specified in this order should ensure control of pollutants in storm water runoff from facilities owned and/or controlled by the permittees.

IX. PERMIT REQUIREMENTS

The legislative history of storm water statutes (1987 CWA Amendments), US EPA regulations (40CFR Parts 122, 123, and 124), and clarifications issued by the State Water Resources Control Board (State Board Orders No. WQ 91-03 and WQ 92-04) indicate that a non-traditional NPDES permitting strategy was anticipated for regulating urban storm water runoff. Due to the economic and technical infeasibility of full-scale end-of-pipe treatments and the complexity of urban storm water runoff quality and quantity, MS4 permits generally include narrative requirements for the implementation of BMPs in place of numeric effluent limits.

The requirements included in this order are meant to specify those management practices, control techniques and system design and engineering methods that will result in maximum extent practicable protection of the beneficial uses of the receiving waters. The State Board (Orders No. WQ 98-01 and WQ 99-05) concluded that MS4s must meet the technology-based maximum extent practicable (MEP) standard and water quality standards (water quality objectives and beneficial uses). The US Court of Appeals for the Ninth Circuit

subsequently held that strict compliance with water quality standards in MS4 permits is at the discretion of the local permitting authority. Any requirements included in the order that are more stringent than the federal storm water regulations are in accordance with the CWA Section 402(p)(3)(iii), and the California Water Code Section 13377 and are consistent with the Regional Board's interpretation of the requisite MEP standard.

The Report of Waste Discharge (ROWD) included a discussion of the current status of Orange County's urban storm water management program and the proposed programs and policies for the next five years (fourth term permit). The proposed order incorporates these documents and the performance commitments made in the ROWD.

This order recognizes the significant progress made by the permittees during the first, second and third term permits in implementing the storm water regulations. The permit also recognizes regional and innovative solutions to such a complex problem. For these reasons, the order is somewhat less prescriptive when compared to some of the MS4 NPDES permits for urban runoff issued by other Regional Boards. However, in many other respects, it incorporates an integrated watershed approach in solving urban runoff related water quality and quantity issues. The proposed permit also includes numeric effluent limits based on wasteload/load allocations. With these requirements, it should achieve the same or better water quality benefits because of the programs and policies already being implemented or proposed for implementation, including regional and watershed wide solutions.

The major requirements include: (1) Discharge prohibitions; (2) Receiving water limitations; (3) Prohibition on illicit connections and illicit discharges; (4) Public and business education; (5) Adequate legal authority; (6) Programs and policies for municipal facilities and activities; (7) Inspection Activities by the municipalities; (8) New development/re-development requirements including a requirement to fully implement low impact development principles and to minimize any hydrologic conditions of concern; (9) Waste load allocations for nutrients, sediment, and fecal coliform bacteria; metals, and pesticides, including numeric effluent limits; and (10) Monitoring and reporting requirements.

These programs and policies are intended to improve urban storm water quality and protect the beneficial uses of receiving waters of the region.

1. DISCHARGE PROHIBITIONS

   In accordance with CWA Section 402(p)(3)(B)(ii), this order prohibits the discharge of non-storm water to the MS4s, with a few exceptions. The specified exceptions are consistent with 40 CFR 122.26(d)(2)(iv)(B)(1). If the permittees or the Executive Officer determines that any of the exempted non-storm water discharges contain pollutants, a separate NPDES permit or coverage under the Regional Board's De Minimis permit will be required.

2. RECEIVING WATER LIMITATIONS

   Receiving water limitations are included to ensure that discharges from MS4 systems do not cause or contribute to violations of applicable water quality standards in receiving waters. The compliance strategy for receiving water limitations is consistent with the US EPA and State Board guidance and recognizes the complexity of storm water management.

This order requires the permittees to meet water quality standards in receiving waters in accordance with US EPA requirements as specified in State Board Order No. WQ 99-05. If water quality standards are not met by implementation of current BMPs, the permittees are required to re-evaluate the programs and policies and to propose additional BMPs. Compliance determination will be based on this iterative BMP implementation/compliance evaluation process.

3. ILLICIT DISCHARGES AND ILLICIT CONNECTIONS TO MS4s

The permittees have completed their survey of the MS4 systems and eliminated or permitted all identified illicit connections. The permittees have also established a program to address illicit discharges and a mechanism to respond to spills and leaks and other incidents of discharges to the MS4s. The permittees are required to continue these programs to ensure that the discharges from MS4s do not become a source of pollutants in receiving waters.

4. PUBLIC AND BUSINESS EDUCATION OUTREACH PROGRAM

Public outreach is an important element of the overall urban pollution prevention program. The permittees have committed to implement a strategic and comprehensive public education program to maintain the integrity of the receiving waters and their ability to sustain beneficial uses. The principal permittee has taken the lead role in the outreach program and has targeted various groups including businesses, industry, development, utilities, environmental groups, institutions, homeowners, school children, and the general public. The proposed order includes additional requirements to address runoff from residential developments. The permittees have developed a number of educational materials, established a storm water pollution prevention hotline, started an advertising and educational campaign and distribute public education materials at a number of public events. The permittees are required to continue these efforts and to expand public participation and education programs.

5. LEGAL AUTHORITY

During the first two permit cycles, each permittee adopted a number of ordinances, municipal codes, and other regulations to establish legal authority to control discharges to the MS4s and to enforce these regulations as specified in 40 CFR 122.26(d)(2)(I)(B, C, E, and F). The permittees are required to enforce these ordinances and to take enforcement actions against violators (40 CFR 122.26(d)(2)(iv)(A-D)). The enforcement activities undertaken by a majority of the permittees have consisted primarily of Notices of Violation, which act to educate the public on the environmental consequences of illicit discharges. Several coastline municipalities have regularly issue Citations. In the case of the County, additional action has sometimes included recovery of investigation and clean-up costs from a responsible party. In the event of egregious or repeated violations, the option exists for a referral to the County District Attorney for possible prosecution. In order to eliminate unauthorized, non-storm water discharges, reduce the amount of pollutants commingling with storm water runoff and thereby protect water quality, an additional level of enforcement is required between Notices of Violation and District Attorney referrals. The third term permit required the permittees to establish the authority and resources to administer either civil or criminal fines and/or penalties for violations of their local water quality ordinances (and the Federal Clean Water

Act). The permittees now have this authority for civil or criminal penalties. Within the fourth term permit, permittees are required to exercise this authority by developing an enforcement program to be administered within the industrial, commercial and construction elements of their storm water management programs. The enforcement program has been required to be included as an update to each permittee's respective Local Implementation Plan.

6. PUBLIC FACILITIES AND ACTIVITIES

Education of municipal planning, inspection, and maintenance staff is critical to ensure that municipal facilities and activities do not cause or contribute to an exceedance of receiving water quality standards. The second and third term permits required the permittees to prepare an Environmental Performance Report to address public agency facilities and activities that are not regulated under the State's General Industrial Activities Storm Water Permit. It also required the permittees to report on an annual basis the actions taken to eliminate the discharge of pollutants from public agency activities and facilities. The permittees are required to inspect and maintain drainage facilities free of waste materials to control pollutants in storm water runoff flowing through these systems. The proposed order requires the permittees to continue to re-evaluate their facilities and activities on an annual basis to see if additional BMPs are needed to ensure water quality protection.

7. MUNICIPAL INSPECTION PROGRAM

The third term permit included requirements for inspection of construction, industrial, and commercial facilities within the permittees' jurisdiction in order to control the loading of pollutants entering the MS4 system. The permittees were required to inventory construction, industrial and commercial facilities; prioritize those facilities with respect to their potential for discharge of pollutants in runoff and their proximity to sensitive receiving waters; and perform regular inspections to insure compliance with local ordinances. Within the fourth term permit, permittees are also to develop a pilot program targeted at mobile businesses (mobile detailers, pool & carpet cleaning, etc.) that have been identified as potential pollutant sources. While initial observations of non-compliance may result in 'educational' type enforcement, repeated non-compliance will result in more severe forms of enforcement, such as monetary penalties, stop work orders or permit revocation. Regional Board staff audits of permittees' storm water programs during the third term permit found that a large percentage of the permittees had characterized inventories of construction, industrial and commercial facilities within each permittee's respective jurisdiction. However, upon review of each permittees inventory and inspection data, Regional Board staff noted that criteria outlined within the third term permit regarding program element criteria yielded a wide range of interpretation between permittees. Therefore, more prescriptive requirements within this element of the permit are included in the fourth term permit. The fourth term permit has also added a residential program element to be implemented by the permittees. This element improves upon the existing requirements within the third term permit, by adding specific criteria associated with developing a more successful means of reducing the discharge of pollutants from residential areas into the MS4 to the maximum extent practicable.

8. NEW DEVELOPMENT

During the third term permit, the permittees developed and revised existing new development guidelines. The permittees were required to implement these guidelines, with program implementation of post construction Water Quality Management Plan (WQMP) criteria standards. Additionally, this order requires the permittees to work towards the goal of restoring and preserving the natural hydrologic cycles in approving urban developments. To accomplish this goal, the permittees are required to implement low impact development principles through appropriate site design and source control BMPs. Recent studies have indicated that low impact development[10] (LID) is one of the most effective ways to minimize any adverse impacts on storm water runoff quality and quantity resulting from urban developments. The Southern California Monitoring Coalition (SMC), including project lead agency, the San Bernardino County Flood Control District, in collaboration with SMC member, Southern California Coastal Water Research Project (SCCWRP) and the California Storm Water Quality Association (CASQA), is developing a Low Impact Development Manual for Southern California with funding from the State Water Resources Control Board. This manual will be

[10] Low impact development is an approach to land development (or re-development) that works with nature to manage storm water as close to its source as possible by using structural and non-structural best management practices to reduce environmental impacts.

incorporated into the CASQA BMP Handbooks. The permittees are encouraged to utilize the manual as a resource for proper LID design and implementation techniques. In order to avoid becoming a source of nuisance, a source of mobilization for existing subterranean contaminants and/or a source of habitat for vectors, LID infiltration BMPs must be properly designed and subsequently maintained.

The proposed order also includes a requirement to infiltrate, harvest and re-use, evapotranpirate or capture the volume of runoff produced from a 24-hour, 85th percentile storm event (design capture volume) for new and re-development projects. It also recognizes that certain soil and groundwater conditions, as well as other site conditions might preclude a particular site from achieving onsite retention and/or treatment of the design capture volume and includes alternatives and in-lieu programs.

Post construction activities conducted at properties that have been developed for commercial or industrial use may substantially increase the risk of post construction pollutants being generated from the developed site. Therefore, the WQMP threshold criteria priority development projects in the proposed order have been redefined from those of third term permit. Third term permit thresholds currently require the development and implementation of post construction WQMP for non-residential commercial/industrial construction projects, where the combined impervious surface area of the project is equal to or greater than 100,000 square feet. WQMP requirement thresholds for residential projects require a WQMP to be prepared when subdivision projects include 10 lots and units or more. Proposed fourth term permit threshold requirements for WQMP development and implementation have become standardized for commercial/industrial, as well as residential construction projects, where the combined impervious surface area of the project is equal to or greater than 10,000 square feet. The aforementioned criteria were redefined in order to adequately address potential pollutant sources, which may exist at properties which undergo development for commercial and industrial uses. Other criteria, which constitute a priority development project have carried over from third term permit to the proposed order.

9. SANITARY SEWER OVERFLOWS, SEPTIC SYSTEM FAILURES AND PORTABLE TOILET DISCHARGES

   The third term permit required the permittees to investigate adverse impacts on urban runoff quality from leaking septic systems and portable toilets. The information provided by the permittees indicates that leaking or failing septic systems are not significant problems in Orange County as most areas of the County are sewered. A number of beach closures in Orange County have been due to spills, overflows, and leaks from the sanitary sewer lines. To address these concerns, waste discharge requirements (SSO order) for local sanitary sewer agencies were adopted by the Regional Board. Subsequently, the State Board adopted an SSO order, Water Quality Order No. 2006-0003, to address this problem on a statewide basis. The Regional Board SSO order has since been rescinded. The permittees are required to comply with the statewide SSO order.

10. MONITORING REQUIREMENTS

During the first term permit and part of the second term permit, the permittees conducted extensive monitoring of the storm water flows, receiving water quality and sediment quality. These early programs focused on identifying pollutants, estimating pollutant loads, tracking compliance with water quality objectives, and identifying sources of pollutants. The Orange County monitoring program, like other monitoring programs nationwide, has established that there is a high degree of uncertainty in the quality of storm water runoff and that there are significant variations in the quality of urban runoff spatially and temporally. However, most of the monitoring programs to date have indicated that there a number of pollutants in urban storm water runoff. Only in a few cases has a definite link between pollutants in urban runoff and beneficial use impairment been established.

In 1999, the permittees re-evaluated their monitoring program and proposed a revised monitoring program. The goals of the 1999 Water Quality Monitoring Program were:

a. To determine the role of urban runoff in beneficial use impairment;

b. To collect technical information to develop an effective urban storm water management plan; and

c. To determine the effectiveness of a number of BMPs, also as an aid to the overall urban storm water management plan.

To accomplish these goals, the monitoring program focused on three areas:

a. Areas where constituent concentrations are substantially above system-wide averages. These areas were referred to as "warm spots" and the designation is based on monitoring data from prior years.

b. Areas of Critical Aquatic Resources (sites with important aquatic resources).

c. Sub-watersheds where certain BMPs have been installed to study their effectiveness.

Based on the results of this monitoring program and the requirements specified in the third term permit and based on guidance provided in "The Model Monitoring Program for Southern California"[11] , a revised monitoring program was submitted (2003 Monitoring Program).

The permittees also participate in a number of other regional monitoring programs such as those conducted by the Southern California Coastal Water Research Project and the California Regional Marine Monitoring Program.

The permittees are encouraged to continue their participation in regional and watershed-wide monitoring programs. By July 1, 2003, the permittees were required to re-evaluate their Water Quality Monitoring Program and submit a revised plan for approval. In February 2003, a revised plan was developed and final approval was given by the Executive Officer in July 2005. The revised plan includes the following monitoring elements: Mass Emissions, Estuary/Wetlands, Water Column Toxicity, Bacteriological/Pathogen, Bioassessment, Reconnaissance, Land Use Correlation, and TMDL/303(d) Listed Waterbodies.

[11] The Model Monitoring Program for Municipal

X. WATER QUALITY BENEFITS/COST ANALYSIS/FISCAL ANALYSIS

There are direct and indirect benefits from clean beaches, clean water, and a clean environment. It is difficult to assign a dollar value to the benefits the public derives from fishable and swimmable waters. In 1972, at the start of the NPDES program, only 1/3 of the US waters were swimmable and fishable. In 2001, 2/3 of the US waters meets these criteria. In the 2008, *Money* magazine survey of the "Best Places to Live", clean water and air ranked as the most important factors in choosing a place to live. Thus, environmental quality has a definite link to property values. Clean beaches and other water recreational facilities also attract tourists. According to the Orange County 2006 Community Indicators Project, it is estimated that on average, an out-of –county visitor spent an average of $107.00 per day in 2004. Huntington Beach's 8.5-mile shoreline attracts 10 million visitors a year[12]. During the summer of 1999 and 2000 when the beaches were closed to water contact recreation, the beach communities reported multi-million-dollar losses in tourist revenues.

The true magnitude of the urban runoff problem is still elusive and any reliable cost estimate for cleaning up urban runoff would be premature. For urban storm water runoff, end-of-pipe treatments are cost prohibitive and are not generally considered as a technologically feasible option. Over the last decade, the permittees have attempted to define the problem and implemented best management practices by implementing regional BMPs to combat the problem. The costs incurred by the permittees in implementing these programs and policies can be divided into three broad categories (the costs indicated below are for the entire Orange County storm water program):

[12] Los Angeles Times, May 9, 2001

1. Shared costs: These are costs that fund activities performed mostly by the principal permittee under the Implementation Agreement. These activities include overall storm water program coordination; intergovernmental agreements; representation at the Storm Water Quality Task Force, Regional Board/State Board meetings and other public forums; preparation and submittal of compliance reports and other reports required under the NPDES permits and Water Code Section 13267, budget and other program documentation; coordination of consultant studies, co-permittee meetings; and training seminars, water quality monitoring, and Countywide pubic education and outreach. Shared costs have increased from $0.81M at the inception of the Orange County Stormwater Program to $4.8M in 2006-7.
2. Individual Costs for DAMP Implementation: These are costs incurred by each permittee for implementing the BMPs (drainage facility inspections for illicit connections, drain inlet/catchbasin stenciling, public education, etc.) included in the DAMP. A number of programs and policies for non-point and storm water pollution controls existed prior to the urban storm water runoff NPDES program. However, the DAMP that was developed and implemented in response to the urban storm water runoff NPDES program required additional programs and policies for pollution control. These costs are attributable to DAMP implementation. In 2006/07, the Permittees determined their total Individual Costs to be $82.2M.

In addition to these expenditures, volunteer efforts (such as the annual "Beach and Innercoastal Watershed Cleanup Day", etc.) also contributed to the urban runoff pollution control efforts.

The permittees identified the following funding sources (2006/07):

FUNDING SOURCE	*PERCENTAGE*
General Funds	11.8%
Gas Taxes	1.3%
Grants	30%
Sanitation Fees	31.3%
Time & Materials Ordinance & Permit Fees	0.6%
Special District Funds	24.3%
Other Sources	0.2%

XI. ANTIDEGRADATION ANALYSIS

The Regional Board has considered whether a complete antidegradation analysis, pursuant to 40 CFR 131.12 and State Board Resolution No. 68-16, is required for these storm water discharges. The Regional Board finds that the pollutant loading rates to the receiving waters will be reduced with the implementation of the requirements in this order. As a result, the quality of storm water discharges and receiving waters will be improved. Since this order will not result in a lowering of water quality, a complete antidegradation analysis is not necessary, consistent with the federal and state antidegradation requirements.

XII. PUBLIC WORKSHOP

The Regional Board recognizes the significance of Orange County's Storm Water/Urban Runoff Management Program and will conduct, participate, and/or assist with any workshop

during the term of this order to promote and discuss the progress of the storm water management program. The details of the workshop will be posted on the Regional Board's website, published in local newspapers and mailed to interested parties. Persons wishing to be included in the mailing list for any of the items related to this order may register their e-mail address and/or mailing address with the Regional Board office at the address given below.

XIII. PUBLIC HEARING

The Regional Board opened a public hearing regarding the proposed waste discharge requirements on Friday, November 21, 2008 at 9:30 a.m. at the City Council Chambers, City of Yorba Linda. The public hearing was continued on Friday, January 18, 2002 at 9:00 a.m. at the City Council Chambers, City of Santa Ana, at which time Order No. R8-2002-0010 was adopted.

XIV. INFORMATION AND COPYING

Persons wishing further information may write to the above address or call Marc Brown at (951) 321-4584. Copies of the application, proposed waste discharge requirements, and other documents (other than those which the Executive Officer maintains as confidential) are available at the Regional Board office for inspection and copying by appointment scheduled between the hours of 8:30 a.m. and 4:00 p.m., Monday through Friday (excluding holidays).

XV. REGISTER OF INTERESTED PERSONS

Any person interested in a particular application or group of applications may leave his/her e-mail and/or mailing address and phone number as part of the file for an application. Copies of tentative waste discharge requirements will be mailed to all interested parties.

In addition to the permittees, comments were solicited from the following agencies and/or persons:

U. S. Environmental Protection Agency – Eugene Bromley (W-5-1)
US Army District, Los Angeles, Corps of Engineers - Permits Section
NOAA, National Marine Fisheries Service
US Fish and Wildlife Service - Carlsbad
State Water Resources Control Board – David Rice, Office of the Chief Counsel
State Water Resources Control Board – Bruce Fujimoto, Division of Water Quality
State Department of Water Resources - Glendale
California Regional Water Quality Control Board, North Coast Region (1) – Executive Officer
California Regional Water Quality Control Board, San Francisco Bay Region (2) – Executive Officer
California Regional Water Quality Control Board, Central Coast Region (3) –Executive Officer
California Regional Water Quality Control Board, Los Angeles Region (4) – Tracy Egoscue
California Regional Water Quality Control Board, Central Valley Region (5S) – Executive Officer
California Regional Water Quality Control Board, Central Valley Region (5R), Redding - AEO
California Regional Water Quality Control Board, Central Valley Region (5F), Fresno – AEO
California Regional Water Quality Control Board, Lahontan Region (6SLT), South Lake Tahoe – Executive Officer
California Regional Water Quality Control Board, Lahontan Region (6V), Victorville – AEO
California Regional Water Quality Control Board, Colorado River Basin Region (7) – Robert Purdue
California Regional Water Quality Control Board, San Diego Region (9) – John Robertus
State Department of Fish and Game - Long Beach
State Department of Health Services - Santa Ana
State Department of Parks and Recreation –
Orange County Health Care Agency – Larry Honeybourne
South Coast Air Quality Management District, Diamond Bar -
Caltrans, District 12, Santa Ana – Grace Pina-Garrett
Southern Pacific Railroad
Atchison, Topeka & Santa Fe Railway Company
Seal Beach Naval Weapons Station
Seal Beach Naval Reserve Center, Los Alamitos
U. S. Marine Corps Air Station, El Toro -
National Forest Service
URS/Greiner - Bob Collacott
The Irvine Company - Sat Tamaribuchi
Building Industry Association – Mark Grey
Latham & Watkins – Paul Singarella
Best, Best, and Krieger –

Universities and Colleges (Chancellor)
University of California, Irvine
California State University, Fullerton
Chapman College
Coastline College
Cypress College
Fullerton College
Irvine Valley College
Golden West College
Orange Coast College
Rancho Santiago College

School Districts (Superintendent)
Anaheim Elementary School District
Anaheim Union High School District
Brea-Olinda Unified School District
Buena Park Joint Union High School District
Centralia Elementary School District
Cypress Elementary School District
Fountain Valley Union High School District
Fullerton Elementary School District
Fullerton Joint Union High School District
Garden Grove Unified School District
Huntington Beach Elementary School District
Huntington Beach Union High School District
Irvine Unified Union High School District
La Habra Joint Union High School District
Los Alamitos Unified School District
Lowell Joint Union High School District
Magnolia Elementary School District
Newport-Mesa Unified School District
Ocean View Union High School District
Orange Unified School District
Placentia Unified School District
Santa Ana Unified School District
Savanna Union High School District
Tustin Unified School District
Westminster Union High School District
Yorba Linda Joint Union High School District

Hospitals (Administrator)
Anaheim General Hospital
Brea Community Hospital
Chapman General Hospital, Orange
Children's Hospital of Orange County. Orange
Coastal Communities Hospital, Santa Ana
Fairview Hospital

FHP Hospital, Fountain Valley
Fountain Valley Regional Hospital and Medical Center
Hoag Hospital, Newport Beach
Kaiser Foundation Hospital, Anaheim
Orange County Community Hospital, Buena Park
Pacifica Community Hospital, Huntington Beach
Placentia Linda Community Hospital
Santa Ana Hospital and Medical Center
St. Joseph's Hospital, Orange
U.C. Irvine Medical Center
Vencor Hospital of Orange County, Westminster
Whittier Hospital and Medical Center, Buena Park

Environmental Organizations
Lawyers for Clean Water – Daniel Cooper
Orange County Coastkeeper – Garry Brown
Defend the Bay – Bob Caustin
Sierra Club, Orange County Chapter
Sierra Club, Los Angeles Chapter - General Manager
Natural Resources Defense Council (NRDC) – David Beckman
Cousteau Society
Amigos De Bolsa Chica
Audobon Sea & Sage Chapter
Huntington Beach Wetlands Conservancy
Surfrider Foundation- Nancy Gardner

Newspapers
Orange County Register – Pat Brennan
Los Angeles Times –
Press Enterprise –
Daily Pilot – Paul Clinton

Major Water/Wastewater Agencies
Santa Ana Watershed Project Authority – Celeste Cantu
Irvine Ranch Water District – General Manager
Los Alisos Water District - General Manager
El Toro Water District - General Manager
San Bernardino County Flood Control District - Naresh Varma
Riverside County Flood Control & Water Conservation District – Steve Stump/Mark Wills
L.A. County Department of Public Works - Gary Hildebrand
Orange County Sanitation Districts - Robert Ghirelli
Orange County Water District – General Manager
Metropolitan Water District - Ed Mean

TAB "3"

CHAPTER 6

TOTAL MAXIMUM DAILY LOADS (TMDLS)

INTRODUCTION

The Federal Clean Water Act (CWA) Section 303(d) requires that States identify waters that do not or are not expected to meet water quality standards (beneficial uses, water quality objectives and the antidegradation policy) with the implementation of technology-based controls. Once a waterbody has been placed on the 303(d) list of impaired waters, states are required to develop a Total Maximum Daily Load (TMDL) to address each pollutant causing impairment. A TMDL defines how much of a pollutant a waterbody can tolerate and still meet water quality standards. Each TMDL must account for all sources of the pollutant, including: discharges from wastewater treatment facilities; runoff from homes, forested lands, agriculture, and streets or highways; contaminated soils/sediments, legacy contaminants such as DDT and PCBs, on-site disposal systems (septic systems) and deposits from the air. Federal regulations require that the TMDL, at a minimum, account for contributions from point sources (permitted discharges) and contributions from nonpoint sources, including natural background. In addition to accounting for past and current activities, TMDLs may consider projected growth that could increase pollutant levels. TMDLs establish numeric targets that, when attained, are expected to correct impairment and achieve water quality standards. To meet those targets, TMDLs allocate allowable pollutant loads to each of the identified sources.

In 2013, USEPA announced a new collaborative framework for implementing the CWA Section 303(d) Program with states.[1] This new "Vision Framework" encourages states to consider alternatives to the development and implementation of TMDLs as the first response to correct water quality impairment. USEPA recognized that alternative approaches, such as the Non-TMDL Action Plans (Action Plans) identified for certain metals in Newport Bay incorporated in this Chapter (see 6.1 Zinc (Zn), Mercury (Hg), Arsenic (As), Chromium (Cr): Zn, Hg, As and Cr Non-TMDL Action Plans (Action Plans) for Newport Bay) may be a more efficient yet equally effective way to address impaired waters. Where such alternative restoration approaches are implemented but prove to be ineffective, TMDLs must be developed to assure that water quality standards are achieved.

California state law (Porter-Cologne Water Quality Control Act, California Water Code Section 13000 et. seq.) requires regional boards to formulate and adopt water quality control plans, or Basin Plans, for all areas within their jurisdiction. The Basin Plans must include an implementation plan that describes how the water quality standards established in the Basin Plans will be met. TMDLs are typically are adopted into the Basin Plans through the Basin Planning process and, pursuant to state law, must

[1] USEPA. A Long-Term Vision for Assessment, Restoration, and Protection under the Clean Water Act Section 303(d) Program. 2013.

include implementation plans. The TMDLs incorporated in this Chapter include implementation plans and, where appropriate, compliance schedules.

Newport Bay Watershed

Water quality problems in Newport Bay were described in detail in reports prepared in response to Senate Concurrent Resolutions 38 and 88 [Ref. 16, 17]. These problems are essentially nonpoint source problems and fall into four major categories: 1) siltation; 2) bacterial contamination; 3) eutrophication and 4) toxic substances contamination. Because of these problems, the Bay and, in some cases, certain tributaries have been identified as being water quality limited, pursuant to the requirements of Section 303 (d) of the Clean Water Act. (See Water Quality Assessment, Page 6-17.) Section 303(d) requires that Total Maximum Daily Loads (TMDLs) be established for each pollutant causing water quality impairment. The TMDL must: 1) identify the maximum load of pollutant which can be discharged while ensuring compliance with water quality standards; 2) allocate necessary reductions in the pollutant load among contributing sources; and, 3) establish a plan and schedule to meet the target pollutant load. The following sections describe the major nonpoint source problems and will include the TMDLs and Load Allocations for each category and an Implementation Plan and Schedule for the TMDLs and Load Allocations, after each TMDL is adopted. Each TMDL includes a proposed target for the reduction of pollutant discharge, together with an implementation plan and schedule for requiring compliance with the water quality objectives in the Basin Plan for each pollutant.

1. Siltation (The following was added or modified under Resolution No. 98-101)

Erosion in the watershed and the resultant siltation in the Bay are a continual threat to the Bay's designated uses. Sediment loads result from erosion of open space lands in foothill areas and from man's activities in the watershed, including: 1) extensive grading for development; 2) increased runoff and channel erosion due to urbanization; and 3) erosion of agricultural lands. San Diego Creek, the largest drainage system in the watershed, accounts for approximately 94 percent of the sediment delivered to the Bay. Most deposition occurs during major storm events, although low-level transport occurs year-round.

In 1982, the Southern California Association of Governments (SCAG) completed the "San Diego Creek Comprehensive Stormwater Sedimentation Control Plan" (Plan) as part of an areawide planning process conducted pursuant to Section 208 of the Clean Water Act. The Plan recommended a two-part approach to management of the erosion-siltation problem. The first part is the reduction of erosion at the source through the implementation of agricultural and construction best management practices (BMPs) and resource conservation plans (RCPs). The second part of the Plan is to intercept as much of the remaining sediment as possible in sediment traps in San Diego Creek and in excavated basins in the upper Bay.

Intensive and well-coordinated efforts to implement the recommendations of the 208 Plan have been and are being made by the state, local agencies and The Irvine Company, the largest private landowner in the watershed. In the past, construction and maintenance of the in-channel and in-bay basins was achieved through cooperative agreements among the California Department of Fish and Game, the County of Orange, the Cities of Newport Beach, Irvine and Tustin, and The Irvine Company (collectively known as the Sediment Executive Committee). Between 1982 and 1988, about 2.4 million cubic years of sediments were removed from the Bay, at a cost of about $13 million. The location and design of the in-bay basins are carefully coordinated with the Department of Fish and Game's management plan for the Upper Newport Bay Ecological Reserve, so that the basins serve not only to trap sediment but also to preserve habitat for many rare and endangered species.

Congress and the U.S. Army Corps of Engineers (Corps) have determined there is a federal interest in sediment removal in the Upper Bay. The Corps also has the primary responsibility for the dredging necessary to maintain navigable channels in the Lower Bay which are impacted by the accumulation of sediment in the Upper Bay. The Corps is currently involved in conducting a Feasibility Study of potential environmental restoration projects in the Upper Bay and has received congressional authorization of initiate a "Fast Track Recon" Study of the San Diego Creek watershed to determine if there are federal interests sufficient to warrant conduct of a Watershed Management Study. The Feasibility Study and Fast Track Recon Study are in the planning stages.

To minimize sediment transport to the Bay, programs have been implemented to control erosion resulting from grading operations at construction sites, and to prevent erosion of agricultural lands. The cities of Irvine, Costa Mesa, Santa Ana, and Newport Beach have grading ordinances which require erosion/siltation control plans for construction projects within their boundaries. The focus of these plans is on the implementation of BMPs. Compliance with the area wide stormwater permit for Orange County and the State Water Resources Control Board's general construction activity stormwater permit, will necessitate additional coordinated efforts to control sediment inputs from construction activities. With technical assistance from the Regional Board, Orange County oversees a program to ensure development and implementation of resource conservation plans (RCPs) by agricultural landowners, principally the Irvine Company.

1.a. Phase 1 of the TMDL for Sediment

The Total Maximum Daily Load for sediment in the Newport Bay/San Diego Creek Watershed includes the following quantifiable targets and Load Allocations that shall be implemented by the Cities (Irvine, Tustin, Lake Forest, Costa Mesa, Santa Ana and Newport Beach) and County responsible for the sediment discharged into stormwater and flood control conveyances under their control which discharge into San Diego Creek and/or Newport Bay.

1. Sediment control measures shall be implemented and maintained to ensure that sediment discharges into Newport Bay will not significantly change the existing

acreages of aquatic, wildlife, and rare and endangered species habitat, and to maintain the navigational and non-contact recreational beneficial uses of the bay. The existing aquatic and wildlife habitat of the Upper Bay, which is comprised of approximately 210 acres of marine aquatic habitat, 214 acres of mudflat habitat, 277 acres of salt marsh, and 31 acres of riparian habitat within, and adjacent to**,** the 700 acre Upper Newport Bay Ecological Reserve and the existing navigational and recreational uses of Newport Bay, will be used by the Regional Board as a performance standard of the effectiveness of the sediment TMDL. If these acreages are changed by more than 1% as the result of sediment deposition, if the in-bay sediment basins or the in-channel sediment basins are not maintained, or if there are impacts to navigational and recreational uses, this will indicate that the local sediment control measures are not adequate to protect the beneficial uses provided by these areas, and the Board will reevaluate the sediment TMDL for Newport Bay and San Diego Creek. Since the intent of the sediment TMDL is to protect these beneficial uses, this quantifiable target will be used as the primary measurement of the success of the TMDL. In order to maintain the marine aquatic habitat of the Unit 1 and 2 Sediment Basins in Upper Newport Bay, a minimum depth of 7 feet below mean sea level shall be maintained**.** The Cities and County, acting through cooperative agreements under the Newport Bay Watershed Executive Committee, shall conduct bathymetric and vegetation surveys of Newport Bay no less than once every three years or as agreed upon by the Executive Officer. This information will be used to evaluate compliance with the acreage and depth targets. If these acreages are changed by more than 1% as the result of sediment deposition, if the minimum depth is not maintained**,** and if the 50% target sediment reduction described below is not achieved, the Regional Board may consider appropriate enforcement action.

2. It is recognized that the Department of Fish and Game, which is responsible for the management of the Reserve, may wish to modify the habitat composition and acreages of the Reserve to address wildlife needs. The habitat acreages identified above will be revised accordingly through the Basin Plan Amendment process.

3. The second quantifiable target is to reduce the annual average sediment load in the watershed from a total of approximately 250,000 tons per year to 125,000 tons per year, thereby reducing the sediment load to Newport Bay to approximately 62,500 tons per year and limiting sediment deposition in the drainages to approximately 62,500 tons per year. Sediment control measures shall be implemented and maintained to result in a 50% reduction in the current load of sediment in the Newport Bay/San Diego Creek Watershed within 10 years. The Regional Board will determine compliance with this target by calculating the annual average amount of suspended solids measured in San Diego Creek at Jamboree Boulevard and Campus Drive over a ten year period, and by evaluating the scour studies of the creek channels and topographic surveys of all the sediment control basins in the watershed to estimate the amount of deposition. Given that annual sediment deposition can vary widely based on weather and other conditions, it is appropriate to evaluate compliance with the sediment

reduction target as a 10 year running annual average of the suspended solids load measured in San Diego Creek at Jamboree Boulevard and Campus Drive. The Regional Board will compare this information to the bathymetric and scour studies information to determine if the monitoring data accurately reflects sediment deposition in the bay and creek channels and to determine compliance with this target.

4. Sediment control measures shall be implemented and maintained to comply with the following Load Allocations (implemented as 10-year running annual averages) for discharges of sediment to Newport Bay: 1) no more than 28,000 tons per year of sediment shall be discharged to Newport Bay from open space areas within the watershed, 2) no more than 19,000 tons per year shall be from agricultural land, 3) no more than 13,000 tons per year from construction sites, 4) no more than 2,500 tons per year discharged from urban areas. The Cities and County, acting through cooperative agreements under the Newport Bay Watershed Executive Committee, shall be required to provide a proposal for evaluating compliance with these individual land use type load allocations that is subject to the approval of the Executive Officer. This proposal shall be implemented upon approval of the Executive Officer.

5. Sediment control measures shall be implemented and maintained to comply with the following Load Allocations (implemented as 10-year running annual averages) in addition to the load allocations specified above for Newport Bay for discharges of sediment to tributaries of Newport Bay: 1) no more than 28,000 tons per year of sediment shall be discharged to San Diego Creek and its tributaries from open space areas within the watershed, 2) no more than 19,000 tons per year shall be discharged to San Diego Creek and its tributaries from agricultural land, 3) no more than 13,000 tons per year discharged to San Diego Creek and its tributaries from construction sites, 4) no more than 2,500 tons per year discharged to San Diego Creek and its tributaries from urban areas. The Cities and County, acting through cooperative agreements under the Newport Bay Watershed Executive Committee, shall be required to provide a proposal for evaluating compliance with these individual land use type load allocations that is subject to the approval of the Executive Officer. This proposal shall be implemented upon approval of the Executive Officer.

6. Sediment control measures shall be implemented such that Upper Newport Bay, including In-Bay Sediment Basins 1 and 2, need not be dredged more frequently than about once every 10 years, and the long-term goal of Phase 1 of the TMDL for sediment is to reduce the frequency of dredging to once every 20 to 30 years. It is recognized that extreme rainfall conditions may necessitate more frequent dredging of the in-bay basins. The Regional Board will adopt waste discharge requirements for such dredging projects as the means of recommending Clean Water Act Section 401 Water Quality Certification for the dredging, and to ensure proper disposal of the dredged sediment.

7. Waste Discharge Requirements will be waived for maintenance dredging of flood control channels and drainages throughout the watershed in order to maintain flood control capacity, under the following conditions; 1) any vegetation removal or earthwork conducted between March 1 and September 1 shall be supervised by a qualified biologist, approved by the Department of Fish and Game, to ensure compliance with the Endangered Species Act and Migratory Bird Treaty Act (this monitor shall have the authority to the stop or divert work to avoid impacts as necessary); and 2) the information in a complete application (report of waste discharge) demonstrates that the waiver criteria specified herein and in Regional Board Resolution No. 96-9, Waiver of Waste Discharge Requirements for Certain Types of Discharges, are met.

8. All in-channel and foothill sediment control basins throughout the drainages in the watershed shall be maintained to have at least 50% of design capacity available prior to November 15 of each year. Waste Discharge Requirements will be waived for sediment control basin maintenance activities under the following conditions: 1) any vegetation removal or earthwork conducted between March 1 and September 1 shall be supervised by a qualified biologist, approved by the Department of Fish and Game, to ensure compliance with the Endangered Species Act and Migratory Bird Treaty Act (this monitor shall have the authority to the stop or divert work to avoid impacts as necessary); 2) the use of herbicides for the control of vegetation within channels shall be avoided to the greatest extent practicable; and 3) the information in a complete application (report of waste discharge) demonstrates that the waiver criteria specified herein and in Regional Board Resolution No. 96-9, Waiver of Waste Discharge Requirements for Certain Types of Discharges, are met.

9. Waste Discharge Requirements will be waived for drainage channelization and stabilization projects on drainages within the watershed between the foothill sediment basins and Upper Newport Bay, under the following conditions: 1) while modifying the channels, no native riparian wetland vegetation shall be removed from within the basins or adjacent to the basins during the period between April 1 and September 1 of each year, in order to protect the federally listed least Bell's vireo, unless one to one mitigation is provided for the loss of the riparian and aquatic habitat; 2) any vegetation removal or earthwork conducted between March 1 and September 1 shall be supervised by a qualified biologist, approved by the Department of Fish and Game, to ensure compliance with the Endangered Species Act and Migratory Bird Treaty Acts (this monitor shall have the authority to stop or divert work to avoid impacts as necessary); and 3) the information in a complete application (report of waste discharge) demonstrates that the waiver criteria specified herein and in Regional Board Resolution No. 96-9, Waiver of Waste Discharge Requirements for Certain Types of Discharges, are met. The Regional Board will continue to work with the U.S. Army Corps of Engineers and other appropriate agencies towards the adoption of a Special Area Management Plan (or comparable plan) and General Permit for channel stabilization and flood control projects in accordance with Section 404 and 401 of the Clean Water Act. If

a plan for completing the Special Area Management Plan by June 1, 1999 is not submitted to the Executive Officer by January 1, 1999, then the Executive Officer is directed to require, as an additional condition for obtaining a waiver, the completion of a comprehensive delineation of all the wetlands in the watershed and an evaluation of the cumulative impacts of projects to control sediment and the build-out of the watershed on the beneficial uses of these waters of the State. This evaluation of the cumulative impacts must be completed, according to a plan acceptable to the Executive Officer, by June 1, 1999. Staff intends to use the delineation to propose a general permit to the Regional Board that will cover the kind of activities described in the amendment. Until the SAMP, or, alternatively, the comprehensive delineation described above, is completed, staff will continue to process individual permit applications for each project.

10. The Cities and County, acting through cooperative agreements under the Newport Bay Watershed Executive Committee, shall evaluate: 1) the amount of sediment being discharged from areas that contribute sediment to the total load discharged to Newport Bay; and 2) the effectiveness of the local sediment control plan (the 208 Plan). Where areas that contribute sediment are not under the jurisdiction of entities that are currently part of the Newport Bay Watershed Executive Committee, the Cities and County shall recommend to the Regional Board, if necessary, a new formula for allocating sediment loads and sharing of the costs of implementing the sediment control measures that will provide a 50% reduction in the current load of sediment. This evaluation shall, at a minimum, address the sediment loads from the Santa Ana-Delhi Channel, Bonita Creek, the federal lands within the watershed, and the City of Lake Forest.

These conditions shall not supersede more restrictive conditions of other agencies, such as the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, the State Department of Fish and Game, or other local agencies.

1.b. Phase 2 of the TMDL for Sediment: Monitoring and Reassessment

The Newport Bay Watershed Executive Committee has developed an agreement whereby the County of Orange conducts the monitoring of sediment discharge within the watershed, with the costs shared by all parties, except the Department of Fish and Game. There has been no site specific monitoring of the various sources of sediment, so it is impossible to determine the effectiveness of specific BMPs. It is also too soon to reach any conclusions about the overall effectiveness of the local sediment control measures. Since 1983, the County has monitored flow and total suspended solids at three locations and conducts periodic scour studies to evaluate sediment transport and deposition in the drainages within the watershed. In addition, the County has conducted two topographic surveys of the Upper Bay to determine sediment accumulation in the Upper Bay. The County intends to continue this monitoring program on behalf of the Newport Bay Watershed Executive Committee.

In addition, the Newport Bay Watershed Executive Committee shall:

1. Propose monitoring stations and schedules to be established to monitor the discharge of sediment from the Santa Ana-Delhi Channel and Bonita Canyon Creek into the Upper Bay and to evaluate the effectiveness of the BMPs being implemented in the watershed. This monitoring plan shall also propose monitoring to evaluate compliance with the Load Allocations for various land use types. This monitoring plan will not become effective until approved by the Regional Board at a duly noticed public hearing as specified in Chapter 1.5, Division 3, Title 23 of the California Code of Regulations (Section 647 et seq.).

2. Propose monitoring stations and schedules to conduct the scour studies for the drainages in the watershed to be conducted annually. These surveys shall determine the amount of sediment accumulated in San Diego Creek and its tributaries, the in-channel sediment basins, the foothill sediment basins, and any other sediment basins in the watershed. The survey report shall be used to demonstrate whether the sediment basins have at least 50% capacity prior to November 15 of each year. This monitoring plan will not become effective until approved by the Regional Board at a duly noticed public hearing as specified in Chapter 1.5, Division 3, Title 23 of the California Code of Regulations (Section 647 et seq.).

3. Conduct topographic and vegetation surveys of Upper Newport Bay at least every three years, or as agreed upon by the Executive Officer, and after any year in which the monitoring for total suspended solids at Campus Drive shows that more than 250,000 tons of sediment were discharged to the Bay. In any year in which these surveys are required, the surveys shall be conducted by July 1. The results of these surveys shall be submitted as part of an annual report by December 31 of each year. The topographic and vegetation surveys shall be conducted to determine the amount of sediment deposition in the two In-Bay basins and the other marine aquatic habitat areas and to determine changes in the areal extent of the existing aquatic, wildlife and endangered species habitat areas.

4. Submit an annual report by December 31 of each year providing the monitoring data and information collected by the Newport Bay Watershed Executive Committee, including the flow and suspended solids monitoring data, the scour studies, the bathymetric and vegetation surveys, (and any additional information collected by the Committee). The monitoring shall be completed prior to July 1 of each year and this information shall be used to determine the maintenance requirements of all sediment basins in the watershed. Additionally, the Newport Bay Watershed Executive Committee shall submit a report by November 15 of each year certifying whether the sediment basins in the watershed have at least 50% capacity. The Regional Board will use the information collected by this monitoring program to evaluate the effectiveness of the sediment TMDL and will reevaluate the sediment TMDL as part of the Regional Board's Basin Planning process.

5. The monitoring data and information collected by the Newport Bay Watershed Executive Committee, including the flow and suspended solids monitoring data, the scour studies, the bathymetric surveys and the vegetation surveys, (and any additional information collected by the Newport Bay Watershed Executive Committee) shall be submitted in an annual report by December 31 of each year. The monitoring shall be completed prior to July 1 of each year and this information shall be used to determine the maintenance requirements of all sediment basins in the watershed. Additionally, the Newport Bay Watershed Executive Committee shall submit a report by November 15 of each year certifying whether the sediment basins in the watershed have at least 50% capacity. The Regional Board will use the information collected by this monitoring program to evaluate the effectiveness of the sediment TMDL and will reevaluate the sediment TMDL as part of the Board's Basin Planning process.

(End of amendment adopted under Resolution 99-101)

2. Eutrophication (The following was added under Resolution No. 98-100)

Nutrient loading to the Bay, particularly from the San Diego Creek watershed, contributes to seasonal algal blooms which can create a recreational and aesthetic nuisance. These algal blooms may also adversely affect wildlife.

The nutrient TMDL for the Newport Bay/San Diego Creek Watershed distributes the portions of the waterbody's assimilative capacity to various pollution sources so that the waterbody achieves its water quality standards. The Regional Board supports the trading of pollutant allocations among sources where appropriate. Trading can take place between point/point, point/nonpoint, and nonpoint/nonpoint pollutant sources. Optimizing alternative point and nonpoint control strategies through allocation tradeoffs may be a cost effective way to achieve pollution reduction benefits.

While there are a number of sources of nutrient input, tailwaters from the irrigation of agricultural crops and from several commercial nurseries in the watershed has been the predominant source. The Regional Board issued Waste Discharge Requirements to the three nurseries, requiring substantial reductions in their nutrient loads. Significant improvements have been achieved by these nurseries, largely due to the implementation of drip irrigation systems (which greatly reduce the amount of tailwater) and/or recycle systems. Installation of drip irrigation systems for other agricultural crops has also significantly reduced the volume of nutrient-laden tailwaters. These improvements, coupled with the increased tidal flushing caused by the in-bay basins, appears to have resulted in a substantial downward trend in nitrate concentrations in the Bay. However, algal blooms are still occurring in Newport Bay and San Diego Creek. As a result, Newport Bay and San Diego Creek are listed as water quality impaired due to nutrients pursuant to Section 303(d) of the Clean Water Act. A nutrient TMDL to address this problem for Newport Bay and San Diego Creek is described in the following sections.

The hydrodynamic, sediment transport, and water quality models of Newport Bay being jointly developed by the U.S. Army Corps of Engineers and the Regional Board will be used in the future to further refine the algae and nutrient relationships in the Bay. These refinements will be considered in future reviews and revisions of the nutrient TMDL.

2.a. Quantifiable Nutrient Targets

The annual loading to total nitrogen and phosphorus to Newport Bay shall be reduced by 50% by 2012. The seasonal and annual loading targets are listed in Table 6-1a.

Table 6-1a Summary of Loading Targets and Compliance Time Schedules.

TMDL	December 31, 2002[5]	December 31, 2007[5]	December 31, 2012[5]
Newport Bay Watershed Total Nitrogen - Summer Load[1]	200,097 lbs.	153,861 lbs.	
Newport Bay Watershed Total Nitrogen - Winter Load[2]			144,364 lbs.
Newport Bay Watershed Total Phosphorus - Annual Load[3]	86,912 lbs.	62,080 lbs.	
San Diego Creek, Reach 2 Total Nitrogen - Daily Load[4]			14 lbs.

1 Total nitrogen summer loading limit applies between April 1 and September 30.

2 Total nitrogen winter loading limit applies between October 1 and March 31 when the mean daily flow rate at San Diego Creek at Campus Drive is below 50 cubic feet per second (cfs), and when the mean daily flow rate in San Diego Creek at Campus Drive is above 50 cubic feet per second (cfs), but not as the result of precipitation.

3 Total phosphorus annual loading is the sum of summer and winter loading during all daily flow rates.

4 Total nitrogen daily loading limit applies when the mean daily flow rate at San Diego Creek at Culver Drive is below 25 cubic feet per second (cfs), and when the mean daily flow rate in San Diego Creek at Culver Drive is above 25 cubic feet per second (cfs), but not as the result of precipitation.

5 Compliance to be achieved no later than this date. The Regional Board may require earlier compliance with these targets when it is feasible and reasonable.

The margin of safety of the nutrient TMDL is implicit through the use of conservative assumptions. These conservative assumptions include controlling all forms of nitrogen and phosphorus and controlling seasonal and annual loading.

Load Allocations

The 5, 10, and 15 year seasonal load allocations of total nitrogen for the Newport Bay Watershed are presented in Table 6-1b. The 5 and 10-year annual total phosphorus load allocations for the Newport Bay Watershed are presented in Table 6-1c. The 15 year daily total nitrogen load allocations for San Diego Creek, Reach 2 are presented in Table 6-1d. The nutrient load reduction targets will be incorporated into waste discharge requirements as effluent limits, load allocations, and waste load allocations as necessary to ensure that:

a. The total inorganic nitrogen and narrative water quality objectives for Newport Bay and San Diego Creek are achieved

b. Clean Water Act requirements for the implementation of a TMDL are satisfied.

Table 6-1b Seasonal Load Allocations of Total Nitrogen for the Newport Bay Watershed.

Nutrient TMDL	1990-1997 Loading	2002 Allocation[8]	2002 Summer Allocation (April-Sept)[8]	2007 Allocation[8]	2007 Summer Allocation (April-Sept)[8]	2012 Allocation[8]	2012 Winter Allocation (Oct-Mar)[7, 8, 11]
Newport Bay Watershed	lbs/year TN[2]	lbs/day TN[10]	lbs/season TN	lbs/day TN[10]	lbs/season TN	lbs/day TN[10]	lbs/season TN
Wasteload Allocation							
Hines Nurseries	96,360 TIN[1]	224	40,992	211	38,613	211	14,227
Bordiers Nursery	30,660 TIN	71	12,993	67	12,261	67	4,518
El Modeno Gardens	18,250 TIN	43	7,869	40	7,320	40	2,697
Unpermitted nurseries	-----[3]	30	5,490	24	4,392	24	1,618
Nursery subtotal			67,344		62,586		23,060
IRWD WWSP (permanent discharge)[9]	0	62		62		62	4,181
Silverado Constructors ETC[4]	0	141	25,671	141	25,671	141	9,459
Urban runoff	277,131[6]		20,785		16,628		55,442
Wasteload Allocation			113,800		104,885		92,142
Load Allocation							
Agricultural discharges	328,040[6]		22,963		11,481		38,283
Undefined sources (Open space, atmospheric deposition, rising groundwater, groundwater cleanup/dewatering, in-bay nitrogen)	-----[3]		63,334		37,495		13,939
Load Allocation			86,297		48,976		52,222
Total	1,087,000[5]		200,097		153,861		144,364
			5 year target		10 year target		15 year target

1 TIN = (NO3+NH3).
2 TN = (TIN + Organic N).
3 Unknown.
4 Wasteload allocation of a 50% reduction in nitrogen concentration upon commencement of discharge
5 1990-1997 annual average (summer loading and winter loading).
6 Estimated annual average (summer and winter loading).
7 Total nitrogen winter loading limit applies between October 1 and March 31 when the mean daily flow rate at San Diego Creek at Campus Drive is below 50 cubic feet per second (cfs), and when the mean daily flow rate in San Diego Creek at Campus Drive is above 50 cubic feet per second (cfs), but not as the result of precipitation.
8 Compliance to be achieved no later than this date. The Regional Board may require earlier compliance with these targets when it is feasible and reasonable.
9 Daily load limit applies upon commencement of discharge.
10 Lbs/day TN (monthly average).
11 Assumes 67 non-storm days.

Table 6-1c Annual Total Phosphorous Load Allocations For The Newport Bay Watershed.

	2002 Allocation lbs/year TP[1]	2007 Allocation lbs/year TP[1]
TMDL	86,912	62,080
Urban areas	4,102	2,960
Construction sites	17,974	12,810
Waste Load Allocation	22,076	15,770
Agricultural areas	26,196	18,720
Open space	38,640	27,590
Load Allocation	64,836	46,310

[1] Compliance to be achieved no later than this date. The Regional Board may require earlier compliance with these targets when it is feasible and reasonable.

Table 6-1d Annual Total Nitrogen Load Allocations For San Diego Creek, Reach 2 During Non-Storm Conditions.[1]

	2012 Allocation lbs/day TN[2]
TMDL	14 lbs/day (TN)
Waste Load Allocation (Urban runoff)	5.5 lbs/day (TN)
Load Allocation (Nurseries, agriculture, undefined sources)	8.5 lbs/day (TN)

[1] Total nitrogen loading limit applies when the mean daily flow rate at San Diego Creek at Culver Drive is below 25 cubic feet per second (cfs), and when the mean daily flow rate in San Diego Creek at Culver Drive is above 25 cubic feet per second (cfs), but not as the result of precipitation.

[2] Compliance to be achieved no later than this date. The Regional Board may require earlier compliance with these targets when it is feasible and reasonable.

2.b. Phase I of the Nutrient TMDL

1. Review and Revision of Water Quality Objectives

By December 31, 2000, the Regional Board shall review, and revise as necessary, the numeric water quality objectives for total inorganic nitrogen for San Diego Creek, Reaches 1 and 2. The Regional Board shall also examine the appropriateness of establishing numeric water quality objectives for phosphorus for San Diego Creek, Reaches 1 and 2.

2. Establish New Waste Discharge Requirements

By December 31, 1999, the Regional Board shall issue new Waste Discharge Requirements (WDRs) to nursery operations of 5 acres or greater which currently are not regulated by WDRs (as of the effective date of this amendment) but discharge nutrients in excess of 1 mg/L TIN to storm channels which are tributary to Newport Bay.

The new WDRs shall incorporate the appropriate wasteload, load, and margin of safety allocations identified in the nutrient load targets for the Newport Bay Watershed. Appropriate monitoring programs to evaluate compliance with load targets and allocations shall be required and incorporated into the WDRs

3. Revision of Existing Waste Discharge Requirements

a. By December 31, 1998, the Regional Board shall revise existing WDRs for nursery operations which currently (as of the effective date of this amendment) discharge nutrients in excess of 1 mg/L TIN to drainages which are tributary to Newport Bay. The revised WDRs shall incorporate the appropriate wasteload, load, and margin of safety allocations identified in the nutrient load reduction targets for the Newport Bay Watershed. Appropriate monitoring programs to evaluate compliance with load targets and allocations shall be required and incorporated into the WDRs.

b. By December 31, 1998, the Regional Board shall revise existing NPDES permits for discharges which currently (as of the effective date of this amendment) discharge nutrients in excess of 1 mg/L TIN to drainages which are tributary to Newport Bay. The revised NPDES permits shall incorporate the appropriate wasteload, load, and margin of safety allocations identified in the nutrient load reduction targets for the Newport Bay Watershed. Appropriate monitoring programs to evaluate compliance with load targets and allocations shall be required and incorporated into the NPDES permits.

c. By March 31, 1999, the Regional Board shall revise the Monitoring and Reporting Programs of existing NPDES permits and WDRs for groundwater dewatering and cleanup operations which discharge to drainages which are tributary to Newport Bay to include requirements for phosphorus and total nitrogen sampling and analysis. This monitoring will generate the data necessary to develop appropriate wasteload allocations for these discharges

4. Agricultural Activities

A watershed-wide nutrient management program for agricultural activities shall be developed by the Orange County Farm Bureau, University of California Cooperative Extension, and the affected growers, in conjunction with Regional Board staff. The proposed management program shall be submitted by July 1, 1999. The nutrient management program will not become effective until approved by the Regional Water Quality Control Board at a duly noticed public meeting as specified in Chapter 1.5, Division 3, Title 23 of the California Code of Regulations (Section 647 et seq.).

5. Urban Stormwater

Co-permittees of the Orange County Areawide Urban Stormwater Permit (Order No. 96-31) shall be required to submit for approval by the Regional Board's Executive Officer

an analysis of appropriate Best Management Practices which will be additionally implemented through the Drainage Area Management Plan (DAMP) to achieve the short term (5-year) interim targets and final nutrient load reduction targets for the Newport Bay Watershed. The co-permittees shall also be required to provide a proposal for 1) evaluating the effectiveness of control actions implemented and 2) evaluating compliance with the nutrient load allocation. The proposal and analysis shall be submitted by July 1, 1999, and shall be implemented upon approval of the Executive Officer as specified by Section IV.1.a.ii.A of Order No. 96-31.

6. Phosphorus

The primary reduction of phosphorus loading is expected to be achieved by the implementation of the total maximum daily load for sediment in the Newport Bay/San Diego Creek watershed. The sediment TMDL is incorporated into the nutrient TMDL for the Newport Bay/San Diego Creek watershed by reference (Note - the sediment TMDL will be appropriately referenced once it is approved by OAL). Limits on phosphorus discharges shall be incorporated into the new and revised Waste Discharge Requirements previously listed, as necessary.

2.c. Phase II of the Nutrient TMDL

1. Monitoring

The Regional Board will establish and oversee a regional monitoring program (RMP) for the Newport Bay watershed. The new and revised WDRs, NPDES permits, DAMP, and agricultural nutrient management plans shall have include requirements to conduct self-monitoring, or in lieu of self-monitoring, to participate in the RMP. Participation in the RMP could result in the reduction of self-monitoring requirements. The RMP will not become effective until approved by the Regional Water Quality Control Board at a duly noticed public meeting as specified in Chapter 1.5, Division 3, Title 23 of the California Code of Regulations (Section 647 et seq.).

The RMP shall be designed by the Regional Board to assess the attainment of the goals of the nutrient TMDL. The objectives of the monitoring program shall be the quantification of the three endpoints of the nutrient TMDL: (1) the seasonal nutrient loading from the watershed; (2) the nutrient concentration in San Diego Creek, Reaches 1 and 2; and (3) the extent, magnitude, and duration of algal blooms in San Diego Creek and Newport Bay. The monitoring plan shall be implemented by March 1999.

The Regional Board will initiate investigations into the currently unknown sources of nutrients in the Newport Bay Watershed. The Regional Board, in cooperation with other agencies and entities, will investigate the occurrence of rising shallow groundwater in the Newport Bay Watershed. The study will focus on the contributions of rising groundwater to the loading of nutrients to drainage channels which are tributary to Newport Bay. Additionally, the study of the nutrient and algae processes of Newport Bay and San Diego Creek will be encouraged and supported by the Regional Board.

Regional Board support could include financial resources, personnel, agency coordination, and scientific review.

2. Actions and Schedule to Achieve Water Quality Objectives

The actions and schedule to achieve water quality objectives is outlined in Table 6-1e. Meeting load reduction targets is highly dependent upon the effectiveness of individual actions; therefore, the Regional Board will review the TMDL, WDRs and compliance schedule at least once every 3 years. Any or all of these may be revised in order to meet water quality standards.

2.d. Estimated Costs of Agricultural Water Quality Control Programs and Potential Sources of Financing

The estimates of capital and operational costs to achieve the nutrient targets of the nutrient TMDL for the San Diego Creek/Newport Bay watershed range from $0.69 million/year to $4.73 million/year.

Potential funding sources include:

1. Private financing by individual sources.
2. Bonded indebtedness or loans from governmental institutions.
3. Surcharge on water deliveries to lands contributing to the drainage problem.
4. Ad Valorem tax on lands contributing to the drainage problem.
5. State or federal grants or low-interest loan programs.
6. Single-purpose appropriations from federal or State legislative bodies (including land retirement programs)

Table 6-1e Schedule of Actions to Achieve Water Quality Objectives.

Program Actions	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Review and revision of water quality objectives			X													
New nursery permits		X														
Revise existing permits	X															
Nurseries	X															
NPDES permit	X															
Groundwater cleanup/dewatering		X														
Agricultural nutrient management plans		X														
Urban runoff BMP plan		X														
Sediment TMDL implementation	X															
Monitoring		X														
Newport Bay Watershed total nitrogen - summer TMDL targets					X					X						
Newport Bay Watershed total nitrogen - winter TMDL target															X	
Newport Bay Watershed total phosphorus - annual TMDL targets					X					X						
San Diego Creek, Reach 2 total nitrogen - daily target															X	
Evaluation of TMDL			X			X			X		X			X		X

(End of amendment adopted under Resolution No. 98-100)

3. Bacterial Contamination (The following was added under Resolution No. 99-10 and amendment under Resolution 2017-0019)

Bacterial contamination of the waters of Newport Bay can directly affect two designated beneficial uses: water-contact recreation (**REC-1**) and shellfish harvesting (**SHEL**). The Orange County Health Care Agency (OCHCA) conducts routine bacteriological monitoring and more detailed sanitary surveys as necessary, and is responsible for closure of areas to recreational and shellfish harvesting uses if warranted by the results.

Because of consistently high levels of total coliform bacteria, the upper portion of Upper Newport Bay (Upper Bay) has been closed to these uses since 1974. In 1978, the shellfish harvesting prohibition area was expanded to include all of the Upper Bay, and the OCHCA generally advises against the consumption of shellfish harvested anywhere in the Bay. Bacterial objectives established to protect shellfish harvesting activities are rarely met in the Bay. (Fecal coliform objectives for the protection of shellfish harvesting and water-contact recreation are shown in Chapter 4, “Enclosed Bays and Estuaries”. The OCHCA has relied on total coliform standards specified in the California Health and Safety Code. Fecal coliform are a subset of total coliform.). Certain areas in the lower parts of the Upper Bay and in Lower Newport Bay (Lower Bay) are also closed to water-contact recreation on a temporary basis, generally in response to storms. In these areas, there is generally good compliance with water-contact recreation bacterial objectives in the summer.

Data collected by the OCHCA demonstrate that tributary inflows, composed of urban and agricultural runoff, including stormwater, are the principal sources of coliform input to the Bay. As expected, there are more violations of bacterial standards in the Bay during wet weather, when tributary flows are higher, than in dry weather. There are few data on the exact sources of the coliform in this runoff. Coliform has diverse origins, including: manure fertilizers which may be applied to agricultural crops and to commercial and residential landscaping; the fecal wastes of humans, household pets and wildlife; and other sources. Special investigations by OCHCA have demonstrated that food wastes are a significant source of coliform. Many restaurants wash down equipment and floor mats into storm drains tributary to the Bay and may improperly dispose of food waste such that it eventually washes into the Bay. Such discharges likely contribute to the chronic bacterial quality problems in certain parts of the Bay.

Another source of bacterial input to the Bay is the discharge of vessel sanitary wastes. Newport Bay has been designated a no-discharge harbor for vessel sanitary wastes since 1976. Despite this prohibition, discharges of these wastes have continued to occur. Since these wastes are of human origin, they pose a potentially significant public health threat.

The Regional Board, the City of Newport Beach (City), the County of Orange, the City of Newport Beach Harbor Quality Committee, and other parties have taken or stimulated actions to enforce the vessel waste discharge prohibition. The principal focus of these efforts has been to make compliance with the prohibition convenient and therefore more likely.

Vessel waste pumpouts have been installed at key locations around the Bay and are inspected routinely by the OCHCA. A City ordinance addresses people-intensive boating activities to ensure proper disposal of sanitary wastes. The ordinance requires that sailing clubs, harbor tour, and boat charter operations install pumpouts for their vessels. Another City ordinance addresses vessel waste disposal by persons living on their boats. Efforts have also been made to ensure that there are adequate public rest rooms onshore. The City also sponsors an extensive public education campaign designed to advise both residents and visitors of the discharge prohibition, the significance of violations, and of the location of pumpouts and rest room facilities. The effectiveness of these extensive vessel waste control efforts is not known.

As noted, the fecal waste of wildlife, including waterfowl that inhabit the Bay and its environs, is a source of coliform input. The fecal coliform from these natural sources may contribute to the violations of water quality objectives and the loss of beneficial uses, but it is currently unknown to what extent these natural sources contribute to, or cause, the violations of bacterial quality objectives in Newport Bay.

Reports prepared by Regional Board staff describe the bacterial quality problems in the Bay in greater detail and discuss the technical basis for the fecal coliform TMDL that follows (Ref. 21, 22). Implementation of this TMDL is expected to address these bacterial quality problems and to assure attainment of water quality standards, that is, compliance with water quality objectives and protection of beneficial uses.

3.a. Fecal Coliform TMDL

A prioritized, phased approach to the control of pathogen indicator bacterial quality in the Bay is specified in this TMDL. This approach is appropriate, given the complexity of the problem, the paucity of relevant data on bacterial sources and fate, the expected difficulties in identifying and implementing appropriate control measures, and uncertainty regarding the nature and attainability of the SHEL use in the Bay. The phased approach is intended to allow for additional monitoring and assessment to address areas of uncertainty and for future revision and refinement of the TMDL as warranted by these studies.

Table 6-1f summarizes the TMDL, Waste Load Allocations (WLAs) for point sources of fecal coliform inputs and Load Allocations (LAs) for nonpoint source inputs. As shown, the TMDL, WLAs and LAs are established to assure compliance with water contact recreation standards no later than December 30, 2014 and with shellfish standards no later than December 31, 2022. WLAs are specified for vessel waste and urban runoff, including stormwater, the quality of which is regulated under a County-wide NPDES permit issued by the Regional Board. This runoff is thus regulated as a point source, even though it is diffuse in origin. LAs are specified for fecal coliform inputs from agricultural runoff, including stormwater, and natural sources. The TMDL is to be adjusted, as appropriate, based upon completion of the studies contained in Table 6-1g. Upon completion of these studies, an updated TMDL report will be prepared summarizing the results of the studies and making recommendations regarding

implementation of the TMDL. The results of the studies may lead to recommendations for changes to the TMDL specified in Table 6-1f to assure compliance with existing Basin Plan standards (objectives and beneficial uses). The study results may also lead to recommendations for changes to the Basin Plan objectives and/or beneficial uses. If such standards changes are approved through the Basin Plan amendment process, then appropriate changes to the TMDL would be required to assure attainment of the revised standards. Revision of the TMDL, if appropriate, would also be considered through the Basin Plan amendment process.

Upon completion and consideration of the studies and any appropriate Basin Plan amendments, a plan for compliance with the TMDL specified in Table 6-1f, or with an approved amended TMDL, will be established. It is expected that this plan will specify a phased compliance approach, based on consideration of such factors as geographic location, the priority assigned by the Regional Board to specific locations for control actions (see Section 3.a.ii, “Beneficial Use Assessment”), season, etc. Interim WLAs, LAs and compliance dates that lead to ultimate compliance with the TMDL will be established.

The TMDL and its allocations contain a significant margin of safety. The margin of safety can be either incorporated implicitly through analytical approaches and assumptions used to develop the TMDL or added explicitly as a separate component of the TMDL. A substantial margin of safety is implicitly incorporated in the TMDL in the fact that the TMDL does not apply criteria for dilution, natural die-off, and tidal flushing. The TMDL, WLAs, and LAs are established at concentrations equivalent to the water quality objectives.

(The following table was updated under Resolution R8-2017.0019)
Table 6-1f: Total Maximum Daily Load, Waste Load Allocations, and Load Allocations for Fecal Coliform in Newport Bay

Total Maximum Daily Load for Fecal Coliform In Newport Bay	Waste Load Allocations for Fecal Coliform in Urban Runoff, including stormwater, Discharges to Newport Bay	Load Allocations for Fecal Coliform in Agricultural Runoff, including stormwater, Discharges to Newport Bay	Load Allocations for Fecal Coliform from Natural Sources in all Discharges to Newport Bay	Waste Load Allocations for Vessel Waste
As soon as possible but no later than December 30, 2013			**In Effect**	**In Effect**
5-Sample/30-days Geometric Mean less than 200 organisms/100 mL, and not more than 10% of the samples exceed 400 organisms/ 100 mL for any 30-day period.	5-Sample/30-days Geometric Mean less than 200 organisms/100 mL, and not more than 10% of the samples exceed 400 organisms/ 100 mL for any 30-day period.	5-Sample/30-days Geometric Mean less than 200 organisms/ 100 mL, and not more than 10% of the samples exceed 400 organisms/ 100 mL for any 30-day period.	5-Sample/30-days Geometric Mean less than 200 organisms/100 mL, and not more than 10% of the samples exceed 400 organisms/ 100 mL for any 30-day period.	0 MPN/100 mL No discharge.
As soon as possible but no later than December 31, 2022				**In Effect**
Monthly Median less than 14 MPN/100 mL, and not more than 10% of the samples exceed 43 MPN/100 mL.	Monthly Median less than 14 MPN/100 mL, and not more than 10% of the samples exceed 43 MPN/100 mL.	Monthly Median less than 14 MPN/100 mL, and not more than 10% of the samples exceed 43 MPN/100 mL.	Monthly Median less than 14 MPN/100 mL, and not more than 10% of the samples exceed 43 MPN/100 mL.	0 MPN/100 mL No discharge.

Table 6-1g: Fecal Coliform Implementation Plan/Schedule Report Due Dates

Task	Description	Compliance Date-As soon As Possible but No Later Than
Task 1	Routine Monitoring Program (Section 3.a.ii.a) a) Submit Proposed Routine Monitoring Plan(s)[1] b) Implement Routine Monitoring Plan(s) c) Submit Monthly and Annual Reports (Reporting Period: April 1-March 31)	 a) (Within 30 days)[2] b) Upon Regional Board Approval of Plan(s) c) Monthly within 30 days, Annual Report by September 1
Task 2	Water Quality Model for Bacterial Indicators (Section 3.a.ii.b) a) Submit Proposed Model Development Plan b) Submit Calibrated Model and Model Documentation	 a) (Within 30 days) [2] b) 13 months after Regional Board approval of plan(s)
Task 3	Beneficial Use Assessment Plan (Section 3.a.ii.c) Submit Proposed Assessment Plan for: a) REC-1 b) SHEL	 a) (Within 30 days) [2] b) (Within 13 months) [2]
Task 4	Beneficial Use Assessment Report (3.a.ii.c) Submit Beneficial Use Assessment Report for: a) REC-1 b) SHEL	 a) 13 months after Regional Board approval of plan(s) b) 13 months after Regional Board approval of plan(s)
Task 5	Source Identification and Characterization Plan(s) (Section 3.a.ii.d) Submit Proposed Source Identification Plans for: a) The Dunes Resort b) Urban Runoff (including stormwater) c) Agriculture (including stormwater) d) Natural Sources	 a) (Within 60 days) [2] b) (Within 60 days) [2] c) (Within 3 months) [2] d) (Within 3 months) [2]

Table 6-1g: Fecal Coliform Implementation Plan/Schedule Report Due Dates

Task	Description	Compliance Date-As Soon As Possible but No Later Than
Task 6	Source Identification and Characterization Reports (Section 3.a.ii.d) Submit Source Identification and Characterization Reports for: a) The Dunes Resort b) Urban Runoff (including stormwater) c) Agriculture (including stormwater) d) Natural Sources	 a) 7 months after Regional Board approval of plan(s) b) 13 months after Regional Board approval of plan(s) c) 16 months after Regional Board approval of plan(s) d) 16 months after Regional Board approval of plan(s)
Task 7	Evaluation of Vessel Waste Program (Section 3.a.ii.e) a) Submit Proposed Plan for Evaluating the Current Vessel Waste Program b) Submit Report on the Evaluation of the Vessel Waste Program	 a) (Within 3 months) [2] b) 12 months after Regional Board approval of plan
Task 8	TMDL, WLA, and LA Evaluation and Source Monitoring Program (Section 3.a.ii.f) a) Submit Proposed Evaluation and Source Monitoring Program Plan(s) b) Implement Evaluation and Source Monitoring Plan(s) c) Submit Monthly and Annual Reports (Reporting Period: April 1-March 31)	 a) 3 months after completion of Tasks 2, 4a, and 6 b) Upon Regional Board approval of plan(s) c) Monthly within 30 days, Annual Report by September 1
Task 9	Updated TMDL Report Submit updated TMDL report for: a) REC-1 b) SHEL	 a) 6 months after completion of Tasks 2, 4a, 6, and 7 b) 6 months after completion of Tasks 2, 4b, 6, and 7

Table 6-1g: Fecal Coliform Implementation Plan/Schedule Report Due Dates

Task	Description	Compliance Date-As Soon As Possible but No Later Than
Task 10	Adjust TMDL, if necessary; adopt interim WLAs, LAs, and Compliance Dates (Section 3.a.ii.h) a) REC-1 b) SHEL	 a) 12 months after completion of Updated TMDL Report for REC-1 (Task 9.a) b) 12 months after completion of Updated TMDL Report for SHEL (Task 9.b)
[1]Note: Provided that the monitoring program plan(s) fulfills the minimum requirements specified in this TMDL, approval of the TMDL shall constitute Regional Board approval of the monitoring program plan(s).		
[2]Note: Within specified time periods of State TMDL approval (i.e., approval by the Regional Board, the State Water Resources Control Board, and the Office of Administrative Law). Upon State TMDL approval, this parenthetical "formula" will be replaced by the date certain, based upon the date of approval.		

3.a.i. TMDL Implementation

As soon as possible but no later than the dates specified in Table 6-1g, the County of Orange, the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Lake Forest and Newport Beach and agricultural operators in the Newport Bay watershed shall submit the plans and schedules shown in Table 6-1g and described in Section 3.a.ii. Subsequent phases of TMDL implementation shall take into account the results of the monitoring and assessment efforts required by the initial study phase of the TMDL implementation plan and other relevant studies.

The following sections describe the requirements for the submittal of plans by dischargers in the Newport Bay watershed to complete specific monitoring, investigations and analyses. In each and every case, the plans submitted by the named dischargers will be considered for approval by the Regional Board at a duly noticed public hearing as specified in Chapter 1.5, Division 3, Title 23 of the California Code of Regulations (Section 647 et seq.). The plans are to be implemented upon Regional Board approval and completed as specified in Table 6-1g.

3.a.ii. Monitoring and Assessment

Routine monitoring and special investigations and analyses are an important part of this phased TMDL. Routine monitoring is necessary to assess compliance with the bacterial quality objectives in the Bay and with the WLAs and LAs specified in the TMDL. Special investigations and analyses are needed to identify and characterize sources of fecal coliform input and to determine their fate in the Bay so that appropriate control measures can be developed and implemented. The effectiveness of current and future bacterial control measures needs to be evaluated. The results of these studies may warrant future changes to this TMDL.

3.a.ii.a. Routine Monitoring

By January 30, 2000, the County of Orange, the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Lake Forest and Newport Beach, and the agricultural operators in the Newport Bay watershed shall propose a plan for routine monitoring to determine compliance with the bacterial quality objectives in the Bay.

At a minimum, the proposed plan shall include the collection of five (5) samples/30-days at the stations specified in Table 6-1h and shown in Figure 6-1 and analysis of the samples for total and fecal coliform and enterococci. Reports of the collected data shall be submitted monthly. An annual report summarizing the data collected for the year and evaluating compliance with the water quality objectives shall be submitted by September 1 of each year.

In lieu of this coordinated, regional monitoring plan, one or more of the parties identified in the preceding paragraph may submit an individual or group plan to

conduct routine monitoring in areas solely within their jurisdiction to determine compliance with the bacterial objectives in the Bay (if appropriate). Any such individual or group plans shall also be submitted by January 30, 2000. Reports of the data collected pursuant to approved individual/group plan(s) shall be submitted monthly and an annual report summarizing the data and evaluating compliance with water quality objectives shall be submitted by September 1 of each year.

The monitoring plan(s) shall be implemented upon Regional Board approval.

Table 6-1h

Newport Bay Sampling Stations for Routine Compliance Monitoring with Bacterial Quality Objectives (see Figure 6-1 for Station Locations)

Ski Zone	33rd Street	Park Avenue
Vaughns Launch	Rhine Channel	Via Genoa
Northstar Beach	De Anza	Alvarado/Bay Is.
Abalone Avenue	Promontory Pt.	10th Street
Dunes East	Bayshore Beach	15th Street
Dunes Middle	Onyx Avenue	19th Street
Dunes West	Garnet Avenue	Lido Island Yacht Club
Dunes North	Ruby Avenue	Harbor Patrol
43rd Street	Sapphire Avenue	N Street Beach
38th Street	Newport Blvd. Bridge	Rocky Point
San Diego Creek @ Campus Dr.	Santa Ana Delhi Channel	Big Canyon Wash
Backbay Dr. Drain		

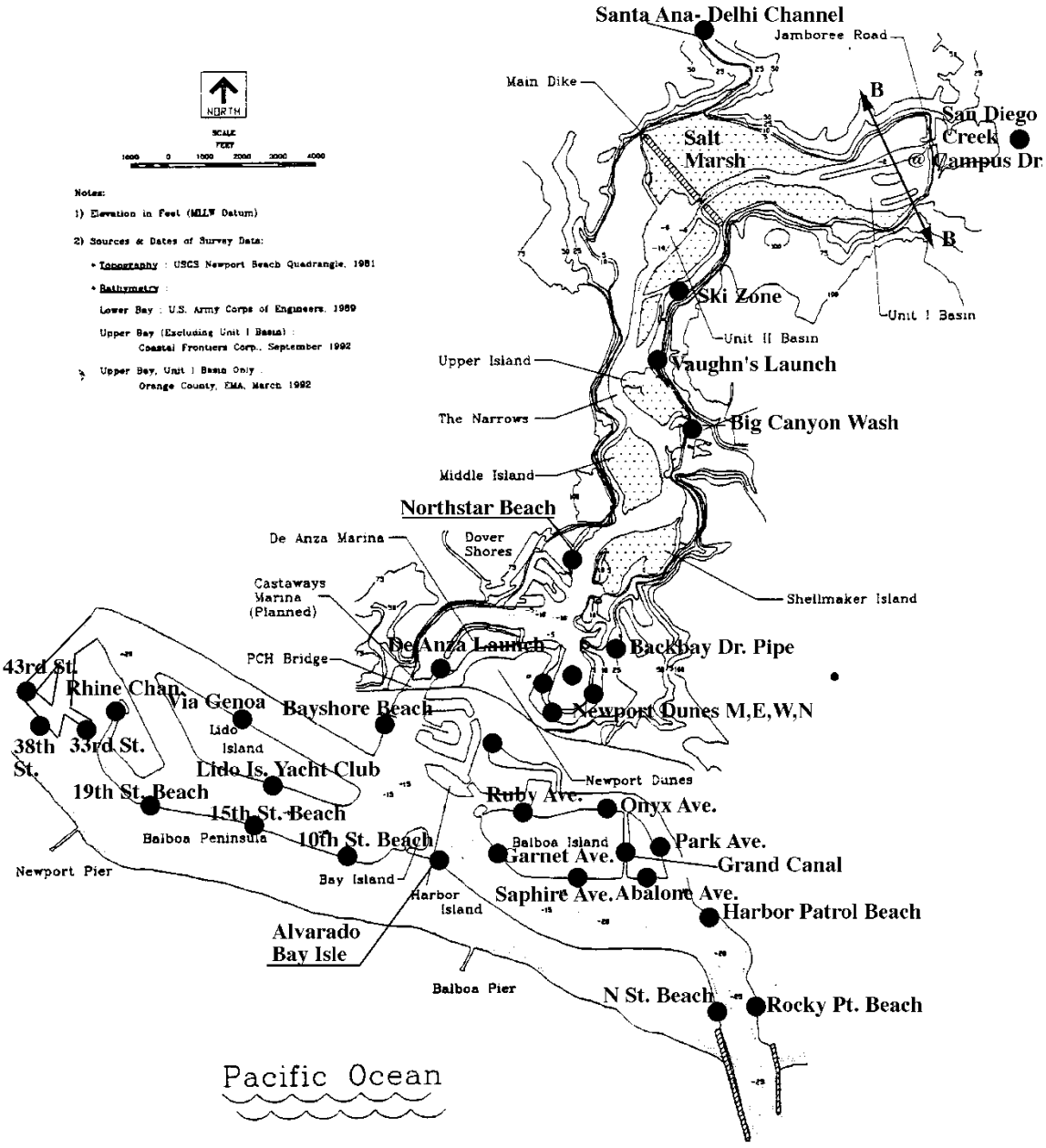


Figure 6-1: Newport Bay Bacterial Quality Monitoring Stations

3.a.ii.b. Fate of Bacteria Inputs

By January 30, 2000, the County of Orange, the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Lake Forest, and Newport Beach and the agricultural operators in the Newport Bay watershed shall submit a plan for the development and submittal of a water quality model to be completed by 13 months after Regional Board approval of the plan. The model shall be capable of analysis of fecal coliform inputs to Newport Bay, the fate of those inputs, and the effect of those inputs on compliance with bacterial quality objectives in the Bay.

3.a.ii.c. Beneficial Use Assessment

By January 30, 2000, the County of Orange, the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Lake Forest and Newport Beach shall submit a plan to complete, by 13 months after Regional Board approval of the plan, a beneficial use assessment to identify and quantify water contact recreation activities in Newport Bay. By 13 months after Regional Board approval of the beneficial use assessment plan, these parties shall submit a report of the results of the water contact recreation beneficial use assessment.

By March 1, 2001, the County of Orange, the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Lake Forest and Newport Beach shall submit a plan to complete, by 13 months after Regional Board approval of the plan, a beneficial use assessment to identify and quantify shellfish harvesting activities in Newport Bay. By 13 months after Regional Board approval of the beneficial use assessment plan, these parties shall submit a report of the results of the shellfish harvesting beneficial use assessment.

The beneficial use assessment reports shall contain recommendations for prioritizing areas within Newport Bay for purposes of evaluation and implementation of cost-effective and reasonable control actions as part of the TMDL process. The Regional Board will consider these recommendations and make its determinations regarding high priority water contact recreation and shellfish harvesting areas at a duly noticed public hearing. These determinations will be considered in establishing interim WLAs and LAs and compliance dates (Task 10, Table 6-1g).

3.a.ii.d. Source Identification and Characterization

By March 1, 2000 the County of Orange and the City of Newport Beach shall submit a proposed plan for a program, to be completed within 7 months after Regional Board approval of the plan to identify and characterize fecal coliform inputs to The Dunes Resort. In lieu of this coordinated plan, each of these parties may submit an individual plan to identify and characterize fecal coliform inputs to The Dunes Resort. Any such individual plan shall also be submitted by March 1, 2000 and completed within 7 months after Regional Board approval of the plan(s).

By March 1, 2000 the County of Orange and the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Lake Forest, and Newport Beach shall submit a proposed plan for a program, to be completed within 13 months after Regional Board approval of the plan to identify and characterize fecal coliform inputs to Newport Bay from urban runoff, including stormwater. In lieu of this coordinated, regional plan, one or more of these parties may submit an individual or group plan to identify and characterize fecal coliform inputs to the Bay from urban runoff from areas within its jurisdiction. Any such individual or group plan shall also be submitted by (60 days after State TMDL approval) * and completed within 13 months after Regional Board approval of the plan(s).

By April 1, 2000, the agricultural operators in the Newport Bay watershed shall submit a proposed plan for a program, to be completed within 16 months after Regional Board approval of the plan, to identify and characterize fecal coliform inputs to Newport Bay from agricultural runoff, including stormwater. In lieu of this coordinated plan, one or more of the agricultural operators may submit an individual or group plan to identify and characterize fecal coliform inputs to the Bay from agricultural runoff from areas within their jurisdiction. Any such individual or group plan shall also be submitted by April 1, 2000, and completed within 16 months after Regional Board approval of the plan(s).

By April 1, 2000, the County of Orange and the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Lake Forest, and Newport Beach shall submit a proposed plan for a program, to be completed within 16 months after Regional Board approval of the plan, to identify and characterize fecal coliform inputs to Newport Bay from natural sources. In lieu of this coordinated, regional plan, one or more of these parties may submit an individual or group plan to identify and characterize fecal coliform inputs to the Bay from natural sources from areas within its jurisdiction. Any such individual or group plan shall also be submitted by April 1, 2000 and completed within 16 months after Regional Board approval of the plan(s).

3.a.ii.e. Evaluation of Vessel Waste Control Program

By April 1, 2000 the County of Orange and the City of Newport Beach shall submit a plan to complete, by one year after Regional Board approval of the plan, an assessment of the effectiveness of the vessel waste control program implemented by those agencies in Newport Bay. The plan shall be implemented upon approval by the Regional Board. A report of the study results shall be submitted, together with recommendations for changes to the vessel waste program necessary to ensure compliance with this TMDL.

The Regional Board will consider appropriate changes to the vessel waste control program. These changes shall be implemented in accordance with a schedule to be established by the Regional Board.

3.a.ii.f. TMDL, WLA and LA Evaluation and Source Monitoring Program

By (3 months after completion of Tasks 2, 4a, and 6 as shown in Table 6-1g)* the County of Orange, the Cities of Tustin, Irvine, Costa Mesa Santa Ana, Orange, Lake Forest and Newport Beach, and the agricultural operators in the Newport Bay watershed shall propose a plan for evaluation and source monitoring to determine compliance with the WLAs and LAs specified in Table 6-1f. In lieu of this coordinated, regional plan, one or more of these parties may submit an individual or group plan to conduct TMDL, WLA, LA and Source Evaluation monitoring from areas solely within their jurisdiction. Any such individual or group plan shall also be submitted by (3 months after completion of Tasks 2, 4a, and 6 as shown in Table 6-1g).* Reports of the data collected pursuant to approved individual/group plan(s) shall be submitted monthly and an annual report summarizing the data and evaluating compliance with WLAs and LAs shall be submitted by September 1 of each year. The annual report shall also include an evaluation of the effectiveness of control measures implemented to control sources of fecal coliform, and recommendations for any changes to the control measures needed to ensure compliance with the TMDL, WLAs, and LAs.

The evaluation and source monitoring plan(s) shall be implemented upon Regional Board approval.

3.a.ii.g. Updated TMDL Report

The County of Orange, the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Lake Forest and Newport Beach, and the agricultural operators in the Newport Bay watershed shall submit Updated TMDL Reports as specified in Table 6-1g. These updated TMDL reports shall, at a minimum, integrate and evaluate the results of the studies required in Table 6-1g (Task 1 – 7). The reports shall include recommendations for revisions to the TMDL, if appropriate and for interim WLAs, LAs and compliance schedules.

3.a.ii.h. Adjust TMDL; Adopt Interim WLA, LAs and Compliance Dates

Based on the results of the studies required by Table 6-1g and recommendations made in the Updated TMDL Reports, changes to the TMDL for fecal coliform may be warranted. Such changes would be considered through the Basin Plan Amendment process. Upon completion and consideration of the studies and any appropriate Basin Plan amendments, interim WLAs and LAs that lead to ultimate compliance with the TMDL specified in Table 6-1f, or with an approved amended TMDL, will be established with interim compliance dates. Schedules will also be established for submittal of implementation plans for control measures to achieve compliance with these WLAs, LAs, and compliance dates. These

implementation plans will be considered by the Regional Board at a duly noticed public hearing.

The Regional Board is committed to the review of this TMDL every three years or more frequently if warranted by these or other studies**.**

(End of amendment adopted under Resolution No. 2017-0019.)

4. Toxic Substance Contamination (The following was added under Resolution No. R8-2003-0039)

San Diego Creek and Newport Bay are not attaining water quality standards with respect to certain classes of toxic pollutants. On June 14, 2002, USEPA established Total Maximum Daily Loads (TMDLs) for selenium, heavy metals (cadmium, copper, lead, and zinc), organochlorine pesticides (chlordane, dieldrin, DDT, and toxaphene), PCBs, and organophosphate pesticides (diazinon and chlorpyrifos). In addition, USEPA established a separate TMDL for the Rhine Channel in Lower Newport Bay. Table 6-1i shows these TMDLs, the constituents addressed, and the waterbodies affected.

USEPA's TMDLs do not specify implementation plans, which are the responsibility of the Regional Board. The Regional Board has adopted or will adopt Basin Plan amendments to incorporate the USEPA TMDLs, revised if and as appropriate, into the Basin Plan. These amendments will include implementation plans. The anticipated schedule for these Basin Plan amendments is also shown in Table 6-1i.

Table 6-1i. USEPA TMDLs Established June 14, 2002

TMDL	Basin Plan Schedule	Location	Constituents
Organophosphate Pesticides	2003	SDC	Diazinon, chlorpyrifos
		UNB	Chlorpyrifos
Selenium	2007	SDC, UNB LNB	Selenium
Metals	2007	SDC	Cd, Cu, Pb, Zn
		UNB	Cd, Cu, Pb, Zn
		LNB	Cu, Pb, Zn
Organochlorine Compounds	2007	SDC	Chlordane, dieldrin, DDT, PCBs, toxaphene
		UNB	Chlordane, DDT, PCBs
		LNB	Chlordane, dieldrin, DDT, PCBs
Rhine Channel	2007	Rhine Channel	Se, Cr, Hg, Cu, Pb, Zn Chlordane, dieldrin, DDT, PCBs

SDC= San Diego Creek; UNB=Upper Newport Bay; LNB=Lower Newport Bay

4.a Diazinon and Chlorpyrifos TMDL

Aquatic toxicity in San Diego Creek and Upper Newport Bay causes adverse impacts to the established beneficial uses of those waterbodies.

A report prepared by Regional Board staff describes the aquatic life toxicity problems in San Diego Creek and Upper Newport Bay in greater detail and discusses the technical basis for the TMDL that follows[2]. This TMDL is the same as that promulgated by the USEPA on June 14, 2002, but an implementation plan is also specified (see Section 4.a.i.). The USEPA TMDL was, in fact, based on a draft TMDL prepared by Regional Board staff. The TMDL addresses toxicity due to diazinon and chlorpyrifos in San Diego Creek and chlorpyrifos in Upper Newport Bay. Implementation of this TMDL is expected to address, to a significant extent, the occurrence of aquatic life toxicity in these waterbodies. Reduction in aquatic life toxicity will help assure attainment of water quality standards; that is, compliance with water quality objectives and protection of beneficial uses.

Table 6-1j shows the TMDL and the allocations for diazinon and chlorpyrifos in San Diego Creek.

Table 6-1j. Diazinon and Chlorpyrifos Allocations for San Diego Creek

Category	Diazinon (ng/L)		Chlorpyrifos (ng/L)	
	Acute	Chronic	Acute	Chronic
Wasteload Allocation	72	45	18	12.6
Load allocation	72	45	18	12.6
MOS	8	5	2	1.4
TMDL	**80**	**50**	**20**	**14**

MOS = Margin of Safety; Chronic means 4-consecutive day average

Table 6-1k shows the TMDL and the allocations for chlorpyrifos in Upper Newport Bay.

Table 6-1k. Chlorpyrifos Allocations for Upper Newport Bay

Category	Acute (ng/L)	Chronic (ng/L)
Wasteload allocation	18	8.1
Load allocation	18	8.1
MOS	2	0.9
TMDL	**20**	**9**

MOS = Margin of Safety; Chronic means 4-consecutive day average

The TMDL and its allocations contain an explicit 10% margin of safety. In addition, a substantial margin of safety is implicitly incorporated in the TMDL through use of conservative assumptions.

[2] Diazinon and Chlorpyrifos TMDL, Upper Newport Bay and San Diego Creek, April 4, 2003

4.a.i TMDL Implementation

Table 6-1l outlines the tasks and schedules to implement the TMDL.

Table 6-1l. TMDL Task Schedule

Task No.	Task	Schedule	Description
1	USEPA Re-Registration Agreements	12/2001 to 12/2006	Phase-out of uses specified in the re-registration agreements. Should end over 90% of usage[1].
2	Revise Discharge Permits	2005	WDR and NPDES permits will be revised to include the TMDL allocations, as appropriate.
3	Pesticide Runoff Management Plan	2004	A pesticide runoff management plan will be developed
4	Monitoring	2003	Modify existing regional monitoring program to include analysis for organophosphate pesticides and toxicity
	Special Studies		
5a	Atmospheric deposition	2003	Quantify atmospheric deposition of chlorpyrifos loading to Upper Newport Bay
5b	Mixing volumes in Upper Newport Bay	2003	Model mixing and stratification of chlorpyrifos in Upper Newport Bay during storm events

[1] This task is not within the purview of the Regional Board, but is nevertheless of critical significance for implementation of the TMDL.

Task 1: <u>USEPA Re-Registration Agreements</u>

The re-registration agreements negotiated by USEPA with the manufacturers of diazinon and chlorpyrifos are the most significant factor affecting the implementation plan. Usage of both diazinon and chlorpyrifos in the Newport Bay Watershed is expected to be reduced by over 90 percent.

Task 2: <u>Revise Discharge Permits</u>

The TMDL allocates wasteloads to all dischargers in the watershed. Since the TMDL is concentration-based, these wasteloads are concentration limits. The concentration limits will be incorporated into existing and future discharge permits in the watershed. Compliance schedules would be included in permits only if they are demonstrated to be necessary. Compliance would be required as soon as possible, but no later than December 1, 2007.

Task 3: <u>Pesticide Runoff Management Plan</u>

A pesticide runoff management plan will be developed for the watershed as a cooperative project between the Regional Board and stakeholders.

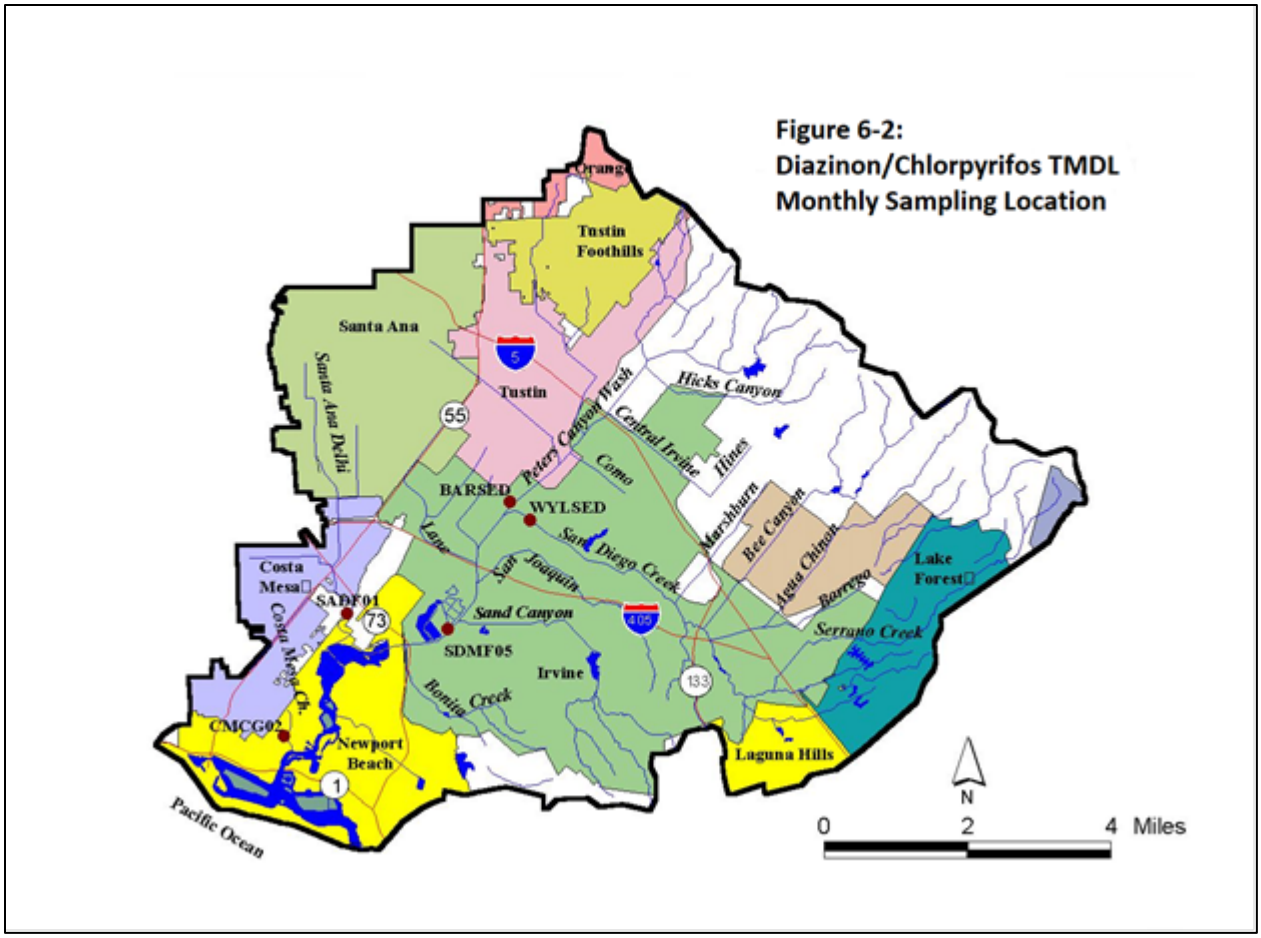
Task 4: Monitoring

Routine monitoring is necessary to assess compliance with the allocations specified in the TMDL. The County of Orange, the Cities of Tustin, Irvine, Costa

Mesa, Santa Ana, Orange, Lake Forest and Newport Beach, and the agricultural operators in the Newport Bay watershed will be required to propose a plan by January 30, 2004 for routine monitoring to determine compliance with the TMDL allocations for diazinon and chlorpyrifos. At a minimum, the proposed plan must include the collection of monthly samples at the stations specified in Table 6-1m and shown in Figure 6-2 and analysis of the samples for diazinon and chlorpyrifos. Monthly toxicity tests should also be conducted at several locations in the watershed. Data summaries will be required monthly. An annual report summarizing the data collected for the year and evaluating compliance with the TMDL will be required to be submitted by November 30 of each year.

Table 6-1m. Minimum Required Monthly Sampling Stations

Station Code	Location
BARSED	Peters Canyon Wash
WYLSED	San Diego Creek at Harvard Dr.
SDMF05	San Diego Creek at Campus Dr.
SADF01, or CMCG02	Santa Ana Delhi Channel, or Costa Mesa Channel



In lieu of this coordinated monitoring plan, one or more of the parties identified in the preceding paragraph may submit an individual or group plan to conduct routine monitoring in areas solely within their jurisdiction to determine compliance with the TMDL. Any such individual or group plans must also be submitted by January 30, 2004. Reports of the data collected pursuant to approved individual/group plans(s) will be required to be submitted monthly, and an annual report summarizing the data and evaluating compliance with the TMDL will be required to be submitted by November 30 of each year.

It is likely that implementation of these requirements will be through the issuance of Water Code Section 13267 letters to the affected parties. The monitoring plan(s) will be considered by the Regional Board and implemented upon the Regional Board's approval.

Task 5: <u>Special Studies</u>

With the anticipated assistance of stakeholders in the watershed, the Regional Board will conduct investigations to (1) quantify the significance of atmospheric

deposition of chlorpyrifos to Upper Newport Bay, and (2) determine the adequacy of the freshwater allocations for chlorpyrifos in the tributaries to Upper Newport Bay in achieving the lower saltwater allocations. The existing hydrodynamic model for Newport Bay is being used to perform simulations that predict contaminant concentrations in the Bay based on various flow and management scenarios. The model results will be used to verify whether the TMDL allocations for chlorpyrifos in the watershed will be sufficient to achieve the TMDL allocations in Upper Newport Bay. One of the questions to be addressed is the magnitude of toxic exposure that could result from development of a freshwater lens associated with the discharge of stormwater to Upper Newport Bay.

4.a.ii Adjust TMDL

Based on the results of the special studies and recommendations made in the Pesticide Runoff Monitoring reports, changes to the TMDL may be warranted. Such changes would be considered through the Basin Plan Amendment process. The Regional Board is committed to the review of this TMDL every three years, or more frequently if warranted by these or other studies.

(End of amendment adopted under Resolution No. R8-2003-0039)

4.b Organochlorine Compounds TMDLs (The following was added under Resolution No. R8-2011-0037)

Organochlorine compounds, including DDT, PCBs, toxaphene and chlordane, possess unique physical and chemical properties that influence their persistence, fate and transport in the environment. While these characteristics vary among the organochlorine compounds, they all exhibit an ability to resist degradation, partition into sediment, and to accumulate in the tissue of organisms, including invertebrates, fish, birds and mammals. The bioaccumulation of these compounds can adversely affect the health and reproductive success of aquatic organisms and their predators, and can pose a health threat to human consumers.

A TMDL technical report prepared by Regional Board staff [Ref. # 1] describes organochlorine-related problems in Newport Bay and its watershed and delineates the technical basis for the TMDLs that follow.

The waterbody-pollutant combinations for which organochlorine compounds TMDLs were established by the Regional Board are listed in Table NB-OCs-1. These TMDLs differ from those established by USEPA in 2002 in several respects:

First, based on an updated impairment assessment that utilized new data and applied the State Water Board's "Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List" (2004) [Ref. # 2], the Regional Board established TMDLs for a list of organochlorine compound-waterbody combinations different from that of USEPA. As shown in Table NB-OCs-2, USEPA also established TMDLs for dieldrin, chlordane, and PCBs in San Diego Creek and

for dieldrin in Lower Newport Bay. In contrast, the Regional Board found no impairment as the result of dieldrin in any of these waters, nor was impairment due to chlordane or PCBs found in San Diego Creek and its tributaries.

As described in the TMDL technical report, Regional Board staff also found no impairment due to DDT in San Diego Creek or its tributaries. However, in adopting the 2006 Section 303(d) list (October 25, 2006, Resolution No. 2006-0079), the State Water Board found impairment due to DDT in Peter's Canyon Channel. In response, the Regional Board established a TMDL for DDT in San Diego Creek and its tributaries, including Peters Canyon Channel.

Second, corrections and modifications were made to loading capacities and existing loads identified in USEPA's TMDLs. Finally, an implementation plan is specified (see Section 4.b.3).

While the Regional Board did not establish TMDLs for chlordane and PCBs for San Diego Creek and tributaries, the Board did develop informational TMDLs for these substances in these waters, pursuant to Clean Water Act Section 303(d)(3). These informational TMDLs are shown in Table NB-OCs-3. This action was taken in light of several factors. First, the largest source of organochlorine compounds to Newport Bay is San Diego Creek. Second, the data suggest that the existing loading of chlordane to the Creek is greater than the loading capacity. This suggests that the lack of finding of impairment due to chlordane may be simply a reflection of a lack of data with which to assess impairment. Finally, these informational TMDLs may forward action to address organochlorine compound problems in the watershed. These informational TMDLs have no regulatory effect but may be used as the basis for further investigation of the relative contributions of the various sources of organochlorine compound inputs to San Diego Creek and thence the Bay. In the long-term, this would be expected to help assure proper apportionment of responsibility for implementation of the TMDLs identified in Table NB-OCs-1.

Table NB-OCs-1. Waterbody-pollutant combinations for which Organochlorine Compound TMDLs are established

Waterbody	***Pollutant***
San Diego Creek and tributaries	DDT, Toxaphene
Upper Newport Bay	Chlordane, DDT, PCBs
Lower Newport Bay	Chlordane, DDT, PCBs

Table NB-OCs-2. Waterbody-pollutant combinations for which Organochlorine Compounds TMDLs were established by USEPA (2002) and Regional Board (2007)

Waterbody	***TMDLs***	
	USEPA	**Regional Board**
San Diego Creek and tributaries*	Chlordane, dieldrin, DDT, PCBs, Toxaphene	DDT, Toxaphene
Upper Newport Bay	Chlordane, DDT, PCBs	Chlordane, DDT, PCBs
Lower Newport Bay	Chlordane, dieldrin, DDT, PCBs	Chlordane, DDT, PCBs

*TMDLs are established for San Diego Creek and tributaries, even if impairment was only found in particular reaches (e.g., SWRCB found DDT impairment in Peter's Canyon Channel, a primary tributary to San Diego Creek Reach 1, but the TMDL includes all of San Diego Creek and tributaries).

Table NB-OCs-3. Informational TMDLs

Waterbody	***Informational TMDLs***
San Diego Creek and tributaries	Chlordane, PCBs

4.b.1 Numeric Targets used in Organochlorine Compounds TMDLs

Numeric targets identify specific endpoints in sediment, water column or tissue that equate to attainment of water quality standards, which is the purpose of TMDLs. Multiple targets may be appropriate where a single indicator is insufficient to protect all beneficial uses and/or attain all applicable water quality objectives. The range of beneficial uses identified in this Basin Plan (see Chapter 3) for the waters addressed by the organochlorine compounds TMDLs makes clear that the targets must address the protection of aquatic organisms, wildlife (including federally listed threatened and endangered species) and human consumers of recreationally and commercially caught fish.
Sediment, water column and fish tissue targets are identified for these TMDLs, as shown in Table NB-OCs-4. The sediment and water column targets are identical to those selected by USEPA in the development of their organochlorine compounds TMDLs (2002). Fish tissue targets are added for the protection of aquatic life and wildlife.

The targets employed in the development of informational TMDLs for chlordane and PCBs in San Diego Creek and its tributaries are shown in Table NB-OCs-5.

Table NB-OCs-4. Numeric Sediment, Fish Tissue, and Water Column TMDL Targets

	Total DDT	Chlordane	Total PCBs	Toxaphene
Sediment Targets[1]; units are □g/kg dry weight				
San Diego Creek and tributaries	6.98			0.1
Upper & Lower Newport Bay	3.89	2.26	21.5	
Fish Tissue Targets for Protection of Human Health[2]; units are □g/kg wet weight				
San Diego Creek and tributaries	100			30
Upper & Lower Newport Bay	100	30	20	
Fish Tissue Targets for Protection of Aquatic Life and Wildlife[3]; units are □g/kg wet weight				
San Diego Creek and tributaries	1000			100
Upper & Lower Newport Bay	50	50	500	
Water Column Targets for Protection of Aquatic Life, Wildlife & Human Health[4] (□g/L)				
San Diego Creek and tributaries				
Acute Criterion (CMC[a])	1.1			0.73
Chronic Criterion (CCC[b])	0.001			0.0002
Human Health Criterion	0.00059			0.00075
Upper & Lower Newport Bay				
Acute Criterion (CMC[a])	0.13	0.09		
Chronic Criterion (CCC[b])	0.001	0.004	0.03	
Human Health Criterion	0.00059	0.00059	0.00017	

1 Freshwater and marine sediment targets, except toxaphene, are Threshold Effect Levels (TELs) from Buchman, M.F. 1999. NOAA Screening Quick Reference Tables, NOAA HAZMAT Report 99-1, Seattle WA, Coastal Protection and Restoration Division, National Oceanic and Atmospheric Administration, 12 pp. Toxaphene target is from N.Y. Dept. of Environmental Conservation.

2 Freshwater and marine fish tissue targets for protection of human health are Office of Environmental Health Hazard Assessment (OEHHA) Screening Values (SVs).

3 Freshwater and marine fish tissue targets for protection of aquatic life and wildlife are from Water Quality Criteria 1972. A report of the Committee on Water Quality Criteria, Environmental Studies Board, National Academy of Sciences, National Academy of Engineering. Washington, D.C., 1972.

4 Freshwater and marine targets are from California Toxics Rule (2000).

a CMC: Criteria Maximum Concentration

b CCC: Continuous Criteria Concentration

Table NB-OCs-5. Numeric Sediment, Fish Tissue, and Water Column Targets used in Informational TMDLs

	Chlordane	Total PCBs
Sediment Targets[1]; units are □g/kg dry weight		
San Diego Creek and tributaries	4.5	34.1
Fish Tissue Targets for Protection of Human Health[2]; units are □g/kg wet weight		
San Diego Creek and tributaries	30	20
Fish Tissue Targets for Protection of Aquatic Life and Wildlife[3]; units are □g/kg wet weight		
San Diego Creek and tributaries	100	500
Water Column Targets for Protection of Aquatic Life, Wildlife & Human Health[4] (□g/L)		
San Diego Creek and tributaries		
Acute Criterion (CMC[a])	2.4	
Chronic Criterion (CCC[b])	0.0043	0.014
Human Health Criterion	0.00059	0.00017

1 Freshwater sediment targets are Threshold Effect Levels (TELs) from Buchman, M.F. 1999. NOAA Screening Quick Reference Tables, NOAA HAZMAT Report 99-1, Seattle WA, Coastal Protection and Restoration Division, National Oceanic and Atmospheric Administration, 12 pp.

2 Freshwater fish tissue targets for protection of human health are Office of Environmental Health Hazard Assessment (OEHHA) Screening Values (SVs).

3 Freshwater fish tissue targets for protection of aquatic life and wildlife are from Water Quality Criteria 1972. A report of the Committee on Water Quality Criteria, Environmental Studies Board, National Academy of Sciences, National Academy of Engineering. Washington, D.C., 1972.

4 Freshwater targets are from California Toxics Rule (2000).

a CMC: Criteria Maximum Concentration

b CCC: Continuous Criteria Concentration

The linkage between adverse effects in sensitive wildlife species and concentrations of the organochlorine pollutants in sediments, prey organisms and water is not well understood at the present time, although work is underway to better understand ecological risk in Newport Bay. In addition, the State is in the process of developing sediment quality objectives that should provide guidance for assessing adverse effects due to pollutant bioaccumulation. Reducing contaminant loads in the sediment will result in progress toward reducing risk to aquatic life and wildlife. During implementation of these TMDLs, additional and/or modified wildlife or other targets will be identified as risk assessment information becomes available. These TMDLs will be revisited (see 4.b.3) and revised as appropriate.

4.b.2. Organochlorine Compounds TMDLs, Wasteload Allocations, Load Allocations and Compliance Dates

The organochlorine compounds TMDLs for San Diego Creek and its tributaries, Upper Newport Bay and Lower Newport Bay are shown in Tables NB-OCs-6 and NB-OCs-7. The TMDLs are expressed on a daily basis (average grams per day) in Table NB-OCs-6, and on an annual basis (grams per year) in Table NB-OCs-7. Expression of the TMDLs on a daily basis is intended to comply with a relevant court decision. However, because of the strong seasonality associated with the loading of organochlorine compounds during storm events, it is appropriate for implementation to occur based on average annual loadings. The TMDLs are to be achieved as soon as possible but no later than December 31, 2020.

Table NB-OCs-6. TMDLs for San Diego Creek, Upper and Lower Newport Bay (expressed on a "daily" basis to be consistent with the D.C. Circuit Court of Appeals decision in Friends of the Earth, Inc. v. EPA, et al., No. 05-5015 [D.C. Cir.2006])

Water Body	Pollutant	TMDL (average grams per day)[a]
San Diego Creek and Tributaries	Total DDT	1.08
	Toxaphene	0.02
Upper Newport Bay	Total DDT	0.44
	Chlordane	0.25
	Total PCBs	0.25
Lower Newport Bay	Total DDT	0.16
	Chlordane	0.09
	Total PCBs	0.66

[a] Compliance to be achieved as soon as possible but no later than December 31, 2020.

Table NB-OCs-7. TMDLs for San Diego Creek, Upper and Lower Newport Bay (expressed on annual basis for implementation purposes)

Water Body	Pollutant	TMDL (grams per year)[a]
San Diego Creek and Tributaries	Total DDT	396
	Toxaphene	6
Upper Newport Bay	Total DDT	160
	Chlordane	93
	Total PCBs	92
Lower Newport Bay	Total DDT	59
	Chlordane	34
	Total PCBs	241

[a] Compliance to be achieved as soon as possible but no later than December 31, 2020.

Informational TMDLs for San Diego Creek and its tributaries for chlordane and total PCBs are shown in Table NB-OCs-8. Again, these informational TMDLs are expressed on average daily and annual bases.

Table NB-OCs-8. Informational TMDLs for San Diego Creek and Tributaries (expressed on average daily and annual bases)

Water Body	Pollutant	TMDL (average grams per day)
San Diego Creek and Tributaries	Chlordane	0.70
	Total PCBs	0.34
		TMDL (grams per year)
San Diego Creek and Tributaries	Chlordane	255
	Total PCBs	125

Wasteload and load allocations to achieve the TMDLs specified in Tables NB-OCs-6 and NB-OCs-7 are shown in Tables NB-OCs-9 and NB-OCs-10, respectively. Like the TMDLs, the allocations are expressed in terms of both average daily and annual loads. An explicit margin of safety (MOS) of ten percent was applied in calculating the allocations. Consistent with the TMDL compliance schedule, these allocations are to be achieved as soon as possible but no later than December 31, 2020.

Wasteload and load allocations necessary to meet the informational TMDLs shown in Table NB-OCs-8 are identified in Tables NB-OCs-11 (expressed as average daily loads) and NB-OCs-12 (expressed as annual loads). These allocations are identified only for informational purposes.

Table NB-OCs-9. TMDLs and Allocations for San Diego Creek, Upper and Lower Newport Bay (expressed on a "daily" basis to be consistent with the recent D.C. Circuit Court of Appeals decision in Friends of the Earth, Inc. v. EPA, et al., No. 05-5015 [D.C. Cir.2006]).[a,b]

	Type	Total DDT	Chlordane	Total PCBs	Toxaphene
		(average grams/day)			
San Diego Creek					
WLA	Urban Runoff – County MS4 (36%)	0.35			0.005
	Construction (28%)	0.27			0.004
	Commercial Nurseries (4%)	0.04			0.001
	Caltrans MS4 (11%)	0.11			0.002
	Subtotal – WLA (79%)	**0.77**			**0.01**
LA	Agriculture (5%) (excludes nurseries under WDRs)	0.05			0.001
	Open Space (9%)	0.09			0.001
	Streams &Channels (2%)	0.02			0.0003
	Undefined (5%)	0.05			0.001
	Subtotal – LA (21%)	**0.21**			**0.003**
MOS (10% of total TMDL)		**0.11**			**0.002**
Total TMDL		**1.08**			**0.02**
Upper Newport Bay					
WLA	Urban Runoff - County MS4 (36%)	0.14	0.08	0.08	
	Construction (28%)	0.11	0.06	0.06	
	Commercial Nurseries (4%)	0.02	0.01	0.01	
	Caltrans MS4 (11%)	0.04	0.03	0.02	
	Subtotal – WLA (79%)	**0.31**	**0.18**	**0.18**	
LA	Agriculture (5%) (excludes nurseries under WDRs)	0.02	0.01	0.01	
	Open Space (9%)	0.04	0.02	0.02	
	Streams & Channels (2%)	0.01	0.005	0.005	
	Undefined (5%)	0.02	0.01	0.01	
	Subtotal – LA (21%)	**0.08**	**0.05**	**0.05**	
MOS (10% of Total TMDL)		**0.04**	**0.03**	**0.03**	
Total TMDL		**0.44**	**0.25**	**0.25**	

Lower Newport Bay					
WLA	Urban Runoff – County MS4 (36%)	0.05	0.03	0.21	
	Construction (28%)	0.04	0.02	0.17	
	Commercial Nurseries (4%)	0.01	0.003	0.02	
	Caltrans MS4 (11%)	0.02	0.01	0.07	
	Subtotal – WLA (79%)	**0.11**	**0.07**	**0.47**	
LA	Agriculture (5%) (excludes nurseries under WDRs)	0.01	0.004	0.03	
	Open Space (9%)	0.01	0.01	0.05	
	Streams & Channels (2%)	0.003	0.002	0.01	
	Undefined (5%)	0.01	0.004	0.03	
	Subtotal – LA (21%)	**0.03**	**0.02**	**0.12**	
MOS (10% of Total TMDL)		**0.02**	**0.01**	**0.07**	
Total TMDL		**0.16**	**0.09**	**0.66**	

[a] Percentages for WLA (79%) and LA (21%) are applied to the TMDL, after subtracting the 10% MOS from the Total TMDL. Percent WLA and Percent LA add to 100%.
[b] Compliance to be achieved as soon as possible but no later than December 31, 2020.

Table NB-OCs-10. TMDLs and Allocations for San Diego Creek, Upper and Lower Newport Bay (expressed on an "annual" basis for implementation purposes).[a, b]

		Total DDT	Chlordane	Total PCBs	Toxaphene
	Type	**(grams per year)**			
San Diego Creek					
WLA	Urban Runoff – County MS4 (36%) Construction (28%) Commercial Nurseries (4%) Caltrans MS4 (11%) **Subtotal – WLA (79%)**	128.3 99.8 14.3 39.2 **281.6**			1.9 1.5 0.2 0.6 **4.3**
LA	Agriculture (5%) (excludes nurseries under WDRs)	17.8			0.3
	Open Space (9%)	32.1			0.5
	Streams & Channels (2%)	7.1			0.1
	Undefined (5%)	17.8			0.3
	Subtotal – LA (21%)	**74.8**			**1.1**
MOS (10% of Total TMDL)		**40**			**0.6**
Total TMDL		**396**			**6**

Upper Newport Bay					
WLA	Urban Runoff – County MS4 (36%) Construction (28%) Commercial Nurseries (4%) Caltrans MS4 (11%) **Subtotal – WLA (79%)**	51.8 40.3 5.8 15.8 **113.8**	30.1 23.4 3.3 9.2 **66.1**	29.8 23.2 3.3 9.1 **65.4**	
LA	Agriculture (5%) (excludes nurseries under WDRs)	7.2	8	7	
	Open Space (9%)	13.0	7.6	7.5	
	Streams & Channels (2%)	2.9	1.7	1.7	
	Undefined (5%)	7.2	4.2	4.2	
	Subtotal – LA (21%)	**30.2**	**21.4**	**20.3**	
MOS (10% of Total TMDL)		**16**	**9**	**9**	
Total TMDL		**160**	**93**	**92**	
Lower Newport Bay					
WLA	Urban Runoff – County MS4 (36%) Construction (28%) Commercial Nurseries (4%) Caltrans MS4 (11%) **Subtotal – WLA (79%)**	19.1 14.9 2.1 5.8 **41.9**	11.0 8.6 1.2 3.4 **24.2**	78.1 60.7 8.7 23.9 **171.4**	
LA	Agriculture (5%) (excludes nurseries under WDRs)	2.7	1.5	10.8	
	Open Space (9%)	4.8	2.8	19.5	
	Streams & Channels (2%)	1.1	0.6	4.3	
	Undefined (5%)	2.7	1.5	10.8	
	Subtotal – LA (21%)	**11.2**	**6.4**	**45.5**	
MOS (10% of Total TMDL)		**5.9**	**3.4**	**24**	
Total TMDL		**59**	**34**	**241**	

[a] Percentages for WLA (79%) and LA (21%) are applied to the TMDL, after subtracting the 10% MOS from the total TMDL. Percent WLA and Percent LA add to 100%.
[b] Compliance to be achieved as soon as possible but no later than December 31, 2020.

Table NB-OCs-11. Informational TMDLs and Allocations for San Diego Creek (expressed on a "daily" basis)[a]

Category	Type	Chlordane	Total PCBs
		(average grams per day)	
San Diego Creek			
WLA	Urban Runoff – County MS4 (36%)	0.23	0.11
	Construction (28%)	0.18	0.09
	Commercial Nurseries (4%)	0.03	0.01
	Caltrans MS4 (11%)	0.07	0.03
	Subtotal – WLA (79%)	**0.50**	**0.24**
LA	Agriculture (5%) (excludes nurseries under WDRs)	0.03	0.02
	Open Space (9%)	0.06	0.03
	Streams &Channels (2%)	0.01	0.01
	Undefined (5%)	0.03	0.02
	Subtotal – LA (21%)	**0.13**	**0.08**
MOS (10% of total TMDL)		**0.07**	**0.03**
Total TMDL		**0.70**	**0.34**

[a] Percentages for WLA (79%) and LA (21%) are applied to the TMDL, after subtracting the 10% MOS from the Total TMDL. Percent WLA and Percent LA add to 100%.

Table NB-OCs-12. Informational TMDLs and Allocations for San Diego Creek (expressed on an "annual" basis)[a]

Category	Type	Chlordane	Total PCBs
		(grams per year)	
San Diego Creek			
WLA	Urban Runoff – County MS4 (36%)	82.6	40.5
	Construction (28%)	64.3	31.5
	Commercial Nurseries (4%)	9.2	4.5
	Caltrans MS4 (11%)	25.2	12.4
	Subtotal – WLA (79%)	**181.3**	**88.9**
LA	Agriculture (5%) (excludes nurseries under WDRs)	11.5	5.6
	Open Space (9%)	20.7	10.1
	Streams &Channels (2%)	4.6	2.3
	Undefined (5%)	11.5	5.6
	Subtotal – LA (21%)	**48.2**	**23.6**
MOS (10% of total TMDL)		**26**	**13**
Total TMDL		**255**	**125**

[a] Percentages for WLA (79%) and LA (21%) are applied to the TMDL, after subtracting the 10% MOS from the total TMDL. Percent WLA and Percent LA add to 100%.

4.b.3. Implementation of Organochlorine Compounds TMDLs

These TMDLs are to be implemented within an adaptive management framework, with compliance monitoring, special studies, and stakeholder interaction guiding the process over time. Information obtained from compliance monitoring will measure progress towards achievement of WLAs and LAs, potentially leading to changes to TMDL allocations; ongoing investigations and recommended special studies, if implemented, may provide information that leads to revisions of the TMDLs, adjustments to the implementation schedule, and/or improved implementation strategies. Thus, implementation of the TMDLs is expected to be an ongoing and dynamic process.

The implementation plan identified in this section reflects the adaptive management, phased approach to the organochlorine compound TMDLs adopted by the Regional Board. The Board found a phased approach, with compliance schedules, appropriate in light of the following considerations. First, it was recognized that additional monitoring and special studies were either already underway or would be needed to address data limitations and significant uncertainty associated with the TMDL calculations, and that changes to the TMDLs might be appropriate based on the results of those investigations. Second, it was also understood that these data limitations and uncertainties pertained to the impairment assessment itself and the determination of the specific organochlorine compounds for which TMDLs are required. Third, the natural attenuation of these compounds over time is expected to affect significantly the selection, development and implementation of BMPs. As described in the TMDL technical report [Ref.1], use of the organochlorine compounds addressed by these TMDLs has been banned for many years and trend analyses indicate declining concentrations of these substances in fish tissue over time. Natural attenuation should eventually reduce organochlorine pollutant levels to concentrations that pose no threat to beneficial uses in San Diego Creek or Newport Bay. While natural degradation of these compounds is likely the principal cause of the observed decline in fish tissue concentrations, the implementation of erosion and sediment controls and other Best Management Practices to address compliance with the sediment and nutrient TMDLs for Newport Bay and its watershed (see discussions of these TMDLs elsewhere in this Basin Plan) is a probable factor. In any case, the observed trends suggest that as monitoring continues in the watershed and pollutant levels decline, some or all of the organochlorine compounds may warrant delisting from the Clean Water Act Section 303(d) list of impaired waters. Again, these TMDLs would need to be revisited accordingly.

This implementation plan also reflects recommendations by regulated stakeholders in the Newport Bay watershed to convene a Working Group to develop and implement a comprehensive Work Plan to: address, as an early action item, the technical uncertainties in these TMDLs and make recommendations for revisions, as appropriate; identify and prioritize tasks

necessary to implement the TMDLs; integrate TMDL implementation tasks with those already being conducted in response to other programs (e.g., permits, other TMDLs); and, investigate other pollutants of concern in the watershed.

Table NB-OCs-13 lists the tasks and schedules needed to implement the organochlorine TMDLs. This implementation plan is aimed at identifying actions to accelerate the decline in organochlorine compound concentrations in the watershed, and to augment their natural attenuation. The implementation plan is focused to a large extent on the monitoring and, where necessary, enhanced implementation of Best Management Practices (BMPs) to reduce the erosion and transport to surface waters of fine sediment to which the organochlorine compounds tend to adhere. Many of these BMPs are already in place as the result of existing permits issued by the Regional Board or State Water Resources Control Board for stormwater and construction activities, and/or in response to established TMDLs. The intent is to assure that source control activities are implemented to reduce any active sources of the organochlorine compounds, and in other areas where such actions will be most effective in meeting the TMDL goals. Monitoring and special study requirements are included to provide for TMDL compliance assessment and refinement**.**

In response to the recommendation by watershed stakeholders, this implementation plan provides an opportunity for dischargers to participate in the development and implementation of a comprehensive Work Plan. The implementation tasks identified in Table NB-OCs-13 (except Tasks 1 and 4; see discussion of Task 7, below) will be considered in the development of the Work Plan and incorporated, as appropriate. Implementation of the Work Plan, which will be approved by the Regional Board at a public hearing, will obviate the need for individual actions on the tasks in Table NB-OCs-13 by members of the Working Group. Completion of the Work Plan will result, in part, in recommendations for revisions to these TMDLs based on review by an Independent Advisory Panel and the results of ongoing or requisite monitoring and investigations, and in the development of a comprehensive plan for BMPs and other actions needed to assure compliance with the TMDLs, wasteload allocations and load allocations as soon as possible after completion of execution of the Work Plan but no later than December 31, 2020[3]. Dischargers who elect not to participate in the Work Plan approach will be required to implement the tasks shown in Table NB-OCs-13, as appropriate.

Each of the task identified in Table NB-OCs-13 is described below.

[3] This compliance schedule and/or the organochlorine compounds TMDLs may be modified, through the Basin Planning process, in response to information provided by implementation of the Work Plan tasks and/or other investigations.

Table NB-OCs-13 Organochlorine Compounds TMDLs Implementation Task and Schedule

Task	Description	Compliance Date – As Soon As Possible But No Later Than [b,c]
PHASE I IMPLEMENTATION		
1	Revise existing WDRs and NPDES permits: *Commercial Nursery WDRs, MS4 Permit, Other NPDES Permits*	Upon OAL approval of BPA and permit renewal
2[a]	a. Develop proposed agricultural BMP and monitoring program to assess and control OCs discharges. b. Implement program	a. October 26, 2013 b. Upon Regional Board approval
3[a]	a. Identify responsible parties for open space areas b. Develop proposed monitoring program to assess OCs inputs from open space areas c. Implement proposed monitoring program d. Develop plan to implement effective erosion and sediment control BMPs for management of fine particulates (if found necessary based on monitoring results) e. Implement BMP plan	a. August 26, 2013 b. 2 months after notification of responsible parties c. Upon Regional Board approval d. Within 6 months of notification of need to develop plan e. Upon Regional Board approval
4[a]	Implement effective sediment and erosion control BMPs for management of fine particulates on construction sites: Regional Board: a. Develop SWPPP Improvement Program MS4 permittees: b. Revise planning processes as necessary to assure proper communication of SWPPP requirements c. Evaluate/implement BMPs effective in reducing/eliminating organochlorine discharges: i. Submit proposed plan and schedule for BMP studies and implement plan ii. Submit studies report; including plan and schedule to implement BMPs/include in Guidance Manual iii. Implement BMPs/include in Guidance Manual	a. July 26, 2013 b. Within 3 months of appropriate revision of the MS4 permit c. i. Submit plan within 3 months of 13267 letter issuance/MS4 permit revision and implement upon Executive Officer approval; ii. Within 6 months of completion of studies plan; iii. Upon Executive Officer approval

5[a]	Evaluate sources of OCs; develop and implement BMPs accordingly: a. Submit proposed plan and schedule for source area investigations b. Implement investigation plan c. Submit report of investigation findings and plan/schedule for implementation of BMPs d. Implement BMP plan	a. Submit plan within 3 months of 13267 letter issuance/appropriate revision of the MS4 permit b. Upon Executive Officer approval c. Within 6 months of completion of investigation plan d. Upon Executive Officer approval
6[a]	Evaluate feasibility and mechanisms to fund future dredging operations within San Diego Creek, Upper and Lower Newport Bay	Submit feasibility/funding report by July 26, 2016
7	Develop comprehensive Work Plan to meet TMDL implementation requirements, consistent with an adaptive management approach a. Convene Working Group b. Submit proposed Work Plan c. Implement Work Plan d. Complete execution of Work Plan	a. 08/26/2013 b. 10/26/2013 c. Upon Regional Board approval d. Within 5 years of Work Plan approval
8[a]	Revise regional monitoring program	October 26, 2013; Annual Reports due November 15
9	Conduct special studies	As funding allows, and in order of priority identified in comprehensive Work Plan (Task 7), if applicable
PHASE II IMPLEMENTATION		
10	Review TMDLs, including numeric targets, WLAs and LAs; delist or revise TMDLs pursuant to established Sediment Quality Objectives, new data, and results of special studies	No later than July 26, 2018

a. The tasks and schedules identified in the Regional Board approved Work Plan developed by the Working Group shall govern implementation activities by members of the Working Group.
b. Final compliance with the TMDLs to be achieved no later than December 31, 2020.
c. The Regional Board may, after a public hearing, and without need for a Basin Plan amendment, revise the schedules in this table, except for the final compliance date of December 31, 2020, if it determines good cause exists for such revisions.

Table NB-OCs-14. Existing NPDES Permits and WDRs Regulating Discharges in the Newport Bay Watershed

No.	Permit Title	Order No.	NPDES No.
1	Waste Discharge Requirements for the United States Department of the Navy, Former Marine Corps Air Station Tustin, Discharge to Peters Canyon Wash in the San Diego Creek/Newport Bay Watershed	R8-2006-0017	CA8000404
2	Waste Discharge Requirements for the County of Orange, Orange County Flood Control District and the Incorporated Cities of Orange County within the Santa Ana Region - Areawide Urban Storm Water Runoff - Orange County (MS4 permit)	R8-2002-0010	CAS618030
3	National Pollutant Discharge Elimination System (NPDES) Permit Statewide Storm Water Permit and Waste Discharge Requirements (WDRs) for the State of California, Department of Transportation (Caltrans)	99-06-DWQ	CAS000003
4	General Waste Discharge Requirements for Discharges to Surface Waters that Pose an Insignificant (de minimus) Threat to Water Quality	R8-2003-0061 as amended by R8-2005-0041 and R8-2006-0004	CAG998001
5	General Waste Discharge Requirements for Short-term Groundwater-Related Dischargers and De Minimus Wastewater Discharges to Surface Waters Within the San Diego Creek/Newport Bay Watershed	R8-2004-0021	CAG998002
6	General Groundwater Cleanup Permit for Discharges to Surface Waters of Extracted and Treated Groundwater Resulting from the Cleanup of Groundwater Polluted by Petroleum Hydrocarbons, Solvents and/or Petroleum Hydrocarbons mixed with Lead and/or Solvents	R8-2002-0007, as amended by R8-2003-0085 and R8-2005-0110	CAG918001
7	Waste Discharge Requirements for City of Tustin's 17th Street Desalter	R8-2002-0005	CA8000305
8	Waste Discharge Requirements for City of Irvine, Groundwater Dewatering Facilities, Irvine, Orange County,	R8-2005-0079	CA8000406
9	Waste Discharge Requirements for Bordiers Nursery, Inc.	R8-2003-0028	
10	Waste Discharge Requirements Hines Nurseries, Inc.	R8-2004-0060	
11	Waste Discharge Requirements for El Modeno Gardens, Inc., Orange County	R8-2005-0009	
12	Waste Discharge Requirements for Nakase Bros. Wholesale Nursery, Orange County	R8-2005-0006	

Phase I Implementation

Task 1: WDRs and NPDES Permits

The Regional Board shall review and revise, as necessary, existing NPDES permits and/or WDRs to incorporate the appropriate TMDL WLAs, compliance schedules, and monitoring program requirements. These permits are identified in Table NB-OCs-14. The appropriate TMDL WLAs, compliance schedules and monitoring program requirements shall be included in new NPDES permits/WDRs. The NPDES permits/WDRs shall specify TMDL-related provisions that apply provided that: (1) the dischargers are and remain members of the Working Group (see Task 7); and (2) the approved Work Plan developed by the Working Group is implemented in a timely and effective manner. The NPDES permit/WDRs shall also include TMDL-related provisions that apply if the discharger(s) do not participate or discontinue participation in the Working Group and/or if the approved Work Plan is not implemented effectively or in a timely manner.

Compliance with the TMDLs and wasteload allocations is to be achieved as soon as possible, but no later than December 31, 2020. The way that this deadline applies to a particular discharger differs depending on whether the discharger is participating in the Working Group:

1. Working Group Participants. Provisions in NPDES permits/WDRs issued during implementation of the Work Plan will specify the following for Working Group members:

    (a) Interim effluent limitations. Participation in the Working Group and timely and effective implementation of the Regional Board-approved Work Plan will constitute interim, performance-based effluent limitations to implement the wasteload allocations. Adhering to these interim effluent limitations satisfies the requirement, during the Work Plan implementation period, to achieve compliance with the TMDLs and wasteload allocations "as soon as possible."

    (b) Final effluent limitations. Final effluent limitations based on the wasteload allocations will also be specified, with a schedule requiring compliance as soon as possible but no later than December 31, 2020.[4] Compliance with the interim, performance-based limitations will fulfill the "as soon as possible" requirement. The NPDES permits/WDRs will specify further that the status of compliance with the final effluent limitations based on the wasteload allocations will be reviewed on an annual basis. Compliance with these limitations will be required prior to the completion of the Work Plan tasks, in accordance with a schedule approved by the Regional Board's Executive Officer, if it is demonstrated to the satisfaction of the Executive Officer that such earlier compliance is reasonably feasible.

[2] It is recognized that this schedule may exceed the five-year terms of NPDES permits. This schedule will be reflected in subsequent renewals of these NPDES permits.

Following the completion of the Work Plan tasks, NPDES permits/WDRs will require dischargers to comply with wasteload allocations in the shortest practicable time, but in no event later than December 31, 2020.

2. Non-Working Group Dischargers. For dischargers not participating in the Working Group, NPDES permit/WDR provisions will require compliance with the wasteload allocations as soon as possible after adoption of NPDES permits/WDRs that implement the TMDLs, but no later than December 31, 2020. In this case, the determination of what constitutes "as soon as possible" will be at the discretion of the Regional Board's Executive Officer.

Completion of the Work Plan and/or other investigations conducted by the Regional Board or others may result in modification of the TMDLs, wasteload allocations and the compliance schedule through the Basin Planning process. Subsequent issuance/revision of NPDES permit/WDRs will implement any such changes.

Ultimate compliance with permit limitations based on wasteload allocations is expected to be based upon iterative implementation of effective BMPs to manage the discharge of fine sediments containing organochlorine compounds, along with monitoring to measure BMP effectiveness.

Permit revisions shall be accomplished as soon as possible upon approval of these TMDLs. Given Regional Board resource constraints and the need to consider other program priorities, permit revisions are likely to be tied to renewal schedules.

For commercial nurseries covered under existing WDRs, revisions of these WDRs shall address the following identified needs:

(1) Evaluation of sites to determine/verify potential storm water and nonstorm water discharge locations;

(2) Evaluation of current monitoring programs and methods of sampling and analysis for consistency with other monitoring efforts in the watershed;

(3) In cooperation with U.C. Cooperative Extension, evaluation of BMPs for adequacy and implementation of the most effective BMPs to reduce/eliminate the discharge of potentially-contaminated fine sediments in both storm water and non-storm water discharges;

(4) Monitoring to better quantify nursery runoff as a potential source of organochlorine compounds and to assure that load reductions are achieved; and

(5) Based on the results of the preceding tasks, development of a workplan to be submitted within one month of the effective date of these TMDLs that identifies:

(a) the BMPs implemented to date and their effectiveness in reducing fine sediment and organochlorine compound discharges;

(b) the adequacy and consistency of monitoring efforts, and proposed improvements;

(c) a plan and schedule for implementation of revised BMPs and monitoring protocols, where appropriate. It is recognized that most nursery operations are likely to be of very limited duration due to the expiration of land leases. The workplan shall identify recommendations for BMP and monitoring improvements that are effective, reasonable and practicable, taking this consideration into account. This workplan shall be implemented upon approval by the Regional Board Executive Officer.

Revisions to the Municipal Separate Storm Sewer System (MS4) permit (R8-2002-0010, NPDES No. CAS618030), including the monitoring program shall address the monitoring and BMP-related tasks identified below, as appropriate. The Regional Board will coordinate also with the State Water Resources Control Board regarding revision of the Caltrans permit to address these monitoring and BMP-related tasks. These include: oversight and implementation of construction BMPs (Task 4); organochlorine compound source evaluations (Task 5); assessment of dredging feasibility and identification of a funding mechanism (Task 6); and, revision of the regional monitoring program (Task 8).

NPDES permits that regulate discharges of ground water to San Diego Creek or its tributaries shall be reviewed and revised as necessary to require annual (at a minimum) monitoring, using the most sensitive analytical techniques practicable, to analyze for organochlorine compounds in the discharges. If organochlorine compounds are found to be present, the dischargers shall be required to evaluate whether and to what extent the discharges would cause or contribute to an exceedance of wasteload allocations and to implement appropriate measures to reduce or eliminate organochlorine compounds in the discharges. New NPDES permits issued for these types of discharges shall incorporate the same requirements.

These dischargers (nurseries, MS4 permittees, Caltrans, ground water dischargers) may address the specific requirements identified above through their participation in the development and implementation of an appropriate Regional Board approved Work Plan (see Task 7).

Task 2: Develop and Implement an Agricultural BMP and Monitoring Program

Apart from certain nurseries, agricultural operations in the watershed are not currently regulated pursuant to waste discharge requirements. The SWRCB's "Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program" (Nonpoint Source Policy) (2004) requires that all nonpoint source dischargers be regulated under WDRs, waivers of WDRs, Basin Plan prohibitions, or some combination

of these three administrative tools. Board staff is developing recommendations for an appropriate regulatory approach to address agricultural discharges. It is expected that the Regional Board will be asked to consider these recommendations and to approve a regulatory approach in late 2007. Appropriate load allocations to implement these TMDLs will be included in WDRs or a waiver of WDRs, if and when issued by the Regional Board to address discharges from agricultural operations.

In the interim, agricultural operators shall identify and implement a monitoring program to assess OCs discharges from their facilities, and identify and implement a BMP program designed to reduce or eliminate those discharges. The proposed monitoring and BMP program shall be submitted as soon as possible but no later than October 26, 2013. These monitoring and BMP programs will be components of the waste discharge requirements or conditional waiver of waste discharge requirements that Board staff will recommend to implement the Nonpoint Source Policy. Load allocations identified in these TMDLs will also be specified in the WDRs/waiver, with a schedule of compliance.

It is recognized that most agricultural operations are expected to be of very limited duration due to the expiration of land leases. The monitoring and BMP programs proposed by the agricultural operators should include recommendations that are effective, reasonable and practicable, taking this consideration into account. The BMP and monitoring programs shall be implemented upon approval by the Regional Board. The BMP and monitoring programs may be implemented individually or by a group or groups of agricultural operators.

In addition, responsible parties may address these BMP/monitoring program requirements through their participation in the development and implementation of an appropriate, Regional Board approved Work Plan (see Task 7). WDRs or conditional waivers of WDRs issued to agricultural operators pursuant to the Nonpoint Source Policy shall specify that for those operators who participate in the development and implementation of a Regional Board approved Work Plan, compliance with the TMDLs and load allocations is to be achieved as soon as possible, but no later than December 31, 2020. The way that this deadline applies to a particular agricultural operator differs depending on whether the operator is participating in the Working Group:

1. Working Group Participants. Provisions in WDRs or conditional waivers of WDRs issued during implementation of the Work Plan will specify the following for Working Group members:

    (a) Interim limitations: Participation in the Working Group and timely and effective implementation of the Regional Board-approved Work Plan will constitute interim, performance-based limitations to implement the load allocations. Adherence to these interim limitations satisfies the requirement, during the Work Plan implementation period, to achieve compliance with the TMDLs and load allocations “as soon as possible.”

    (b) Final limitations: Final limitations based on the load allocations will also be

specified in the WDRs/waivers, with a schedule requiring compliance as soon as possible but no later than December 31, 2020. Compliance with the interim, performance-based limitations will fulfill the "as soon as possible" requirement. The WDRs/waivers will specify further that the status of compliance with the final limitations based on the load allocations will be reviewed on an annual basis. Compliance with these limitations will be required prior to the completion of the Work Plan tasks, in accordance with a schedule approved by the Regional Board's Executive Officer, if it is demonstrated to the satisfaction of the Executive Officer that such earlier compliance is reasonably feasible.

Following the completion of the Work Plan tasks, WDRs/waivers will require agricultural operators to comply with load allocations in the shortest practicable time, but in no event later than December 31, 2020.

2. Non-Working Group Dischargers. For agricultural operators not participating in the Working Group, provisions in WDR/waivers of WDRs will require compliance with the load allocations as soon as possible after adoption of WDRs/waivers of WDRs that implement the TMDLs, but no later than December 31, 2020. In this case, the determination of what constitutes "as soon as possible" will be at the discretion of the Regional Board's Executive Officer.

Completion of the Work Plan and/or other investigations conducted by the Regional Board or others may result in modification of the TMDLs, load allocations and the compliance schedule through the Basin Planning process. Subsequent issuance/revision of WDRs/conditional waivers of WDRs will implement any such changes.

Task 3: Identify Parties Responsible for Open Space Areas; Develop and Implement an OCs Monitoring Program to Assess Open Space Discharges; Develop and Implement an OCs BMP Program, if Necessary

Nonpoint source discharges from open space are also subject to State regulation. During Phase I of these TMDLs, sufficient data shall be collected by the responsible parties to determine whether discharges of OCs from designated open space, as well as discharges resulting from erosion in and adjacent to unmodified streams, are causing or contributing to exceedances of water quality objectives and/or impairment of beneficial uses of San Diego Creek and Newport Bay. With the assistance of the stakeholders, Regional Board staff will identify the responsible parties as soon as possible but no later than August 26, 2013. Board staff will notify the identified responsible parties of their obligation to propose an organochlorine compound monitoring program within two months of notification. The monitoring program shall be implemented upon Regional Board approval.

Based on the results of this monitoring program, the responsible parties shall develop a BMP implementation plan within 6 months of notification by the Regional Board's

Executive Officer of the need to do so. The responsible parties shall implement that plan upon Regional Board approval.

The responsible parties may address these monitoring and BMP implementation program requirements through their participation in the development and implementation of an appropriate Regional Board approved Work Plan (see Task 7).

The Regional Board will consider whether WDRs or a WDR waiver is necessary and appropriate for responsible parties not currently regulated, based on the monitoring results. WDRs or a WDR waiver, if issued, will include appropriate load allocations to implement these TMDLs. For responsible parties compliance with the TMDLs and load allocations is to be achieved as soon as possible, but no later than December 31, 2020. The way that this deadline applies to a particular responsible party differs depending on whether that responsible party is participating in the Working Group:

1. Working Group Participants. Provisions in WDRs or conditional waivers of WDRs issued during implementation of the Work Plan will specify the following for Working Group members:

    (a) Interim limitations: Participation in the Working Group and timely and effective implementation of the Regional Board-approved Work Plan will constitute interim, performance-based limitations to implement the load allocations. Adherence to the interim, performance-based limitations satisfies the requirement, during the Work Plan implementation period, to achieve compliance with the TMDLs and load allocations "as soon as possible."

    (b) Final limitations: Final limitations based on the load allocations will also be specified in the WDRs/waivers, with a schedule requiring compliance as soon as possible but no later than December 31, 2020. Compliance with the interim, performance-based limitations will fulfill the "as soon as possible" requirement. The WDRs/waivers will specify further that the status of compliance with the final limitations based on the load allocations will be reviewed on an annual basis. Compliance with the final limitations will be required prior to the completion of the Work Plan tasks, in accordance with a schedule approved by the Regional Board's Executive Officer, if it is demonstrated to the satisfaction of the Executive Officer that such earlier compliance is reasonably feasible.

Following the completion of the Work Plan tasks, WDRs/waivers will require responsible parties to comply with load allocations in the shortest practicable time, but in no event later than December 31, 2020.

2. Non-Working Group Dischargers. For responsible parties not participating in the Working Group, compliance with the load allocations will be as soon as possible after TMDLs adoption and approval, but no later than December 31, 2020. In this

case, the determination of what constitutes “as soon as possible” will be at the discretion of the Regional Board’s Executive Officer.

Completion of the Work Plan and/or other investigations conducted by the Regional Board or others may result in modification of the TMDLs, load allocations and the compliance schedule through the Basin Planning process. Subsequent issuance/revision of WDRs/conditional waivers of WDRs will implement any such changes.

Task 4: Develop and Implement Appropriate BMPs for Construction Activities

Currently, all construction activities in the watershed are regulated under the State Water Resource Control Board’s (SWRCB) General Permit for Discharge of Storm Water Runoff Associated with Construction Activity (Order No. 99-08-DWQ, NPDES No. CAS000002; the “General Construction Permit”), SWRCB National Pollutant Discharge Elimination System (NPDES) Permit Statewide Storm Water Permit and Waste Discharge Requirements (WDRs) for the State of California, Department of Transportation (Caltrans) (Order No. 99-06-DWQ, NPDES No. CAS000003; the Caltrans MS4 permit), and/or the Orange County MS4 NPDES permit. The requirements of these permits and an iterative, adaptive-management BMP approach, coupled with monitoring, are the foundation for meeting the TMDL WLAs for construction. The General Construction Permit, and the Orange County and Caltrans MS4 permits are expected to be revised over time. The specific tasks identified below may be addressed by revisions to one or more of these permits. In that case, the Regional Board will integrate requirements for implementation of this Task with the requirements of the Orange County and Caltrans MS4/General Construction permits so as to prevent conflict and/or duplication of effort.

To assure that effective construction BMPs are identified and implemented, program improvements are needed in the following areas: (a) Storm Water Pollution Prevention Plans (SWPPPs) prepared in response to the General Construction Permit must include supporting documentation and assumptions for selection of sediment and erosion control BMPs, and must state why the selected BMPs will meet the Construction WLAs for the organochlorine compounds; (b) SWPPP provisions must be rigorously implemented on construction sites; (c) sampling and analysis for the organochlorine pesticides and PCBs in storm and nonstorm discharges containing sediment from construction sites is necessary to determine the efficacy of BMPs, as well as compliance with the construction WLAs; sampling and analysis plans must be included in SWPPPs; (d) additional BMPs, including enhanced BMPs, must be evaluated to determine those that may be appropriate for reducing or eliminating organochlorine compound discharges from construction sites (e.g., BMPs effective in control of fine particulates) without significant adverse environmental effects (e.g., toxicity that might result from improper storage and/or application of polymers); (e) outreach is necessary to assure the effective implementation of these SWPPP requirements; and (f) enforcement of the SWPPP requirements is necessary.

To address these program improvements, Regional Board staff shall develop a SWPPP Improvement Program that identifies the Regional Board's expectations with respect to the content of SWPPPs, including documentation regarding the selection and implementation of BMPs, and a sampling and analysis plan. The Improvement Program shall include specific guidance regarding the development and implementation of monitoring plans, including the constituents to be monitored, sampling frequency and analytical protocols. The SWPPP Improvement Program shall be completed by July 26, 2013. No later than two months from completion of the Improvement Program, Board staff shall assure that the requirements of the Program are communicated to interested parties, including dischargers with existing authorizations under the General Construction Permit. Existing, authorized dischargers shall revise their project SWPPPs as needed to address the Program requirements as soon as possible but no later than October 26, 2013. Applicable SWPPPs that do not adequately address the Program requirements shall be considered inadequate and enforcement by the Regional Board shall proceed accordingly. The Caltrans and Orange County MS4 permits shall be revised as needed to assure that the permittees communicate the Regional Board's SWPPP expectations, based on the SWPPP Improvement Program, with the Standard Conditions of Approval.

The MS4 permittees shall conduct studies to evaluate BMPs that are most appropriate for reducing or eliminating organochlorine compound discharges from construction sites (e.g., fine particulates), including advanced treatment BMPs. The evaluation shall consider the potential for adverse environmental effects associated with implementation of each of the BMPs identified. MS4 Permittees shall include these BMPs in the Orange County Stormwater Program Construction Runoff Guidance Manual and the Caltrans Storm Water Management Plan (SWMP). Implementation of these MS4 permittee requirements shall commence upon issuance of appropriate Water Code Section 13267 letters or renewal of the MS4 permits, whichever occurs first. The Section 13267 letters/revised permits shall require the permittees to: (a) submit a proposed plan and schedule for studies to evaluate appropriate BMPs, as described above, within three months of issuance of the 13267 letter or permit revision; (b) implement the plan and schedule upon approval by the Regional Board's Executive Officer; (c) submit a report of the BMP investigations within 6 months of approval of the study plan, provided that sufficient storms, as defined in the study plan, have occurred within that period. If the number of storms does not conform to the study plan, then the report shall be submitted in accordance with a schedule approved by the Executive Officer once the requisite number of storms has occurred. The report shall include a proposed plan and schedule for implementation of the BMPs, as appropriate, and inclusion of the BMPs in the Orange County Guidance Manual and in the Caltrans SWMP and related guidance documents; (d) implement the BMP plan upon approval by the Executive Officer.

The MS4 permittees may address these SWPPP and construction site BMP-related requirements through their participation in the development and implementation of an appropriate, Regional Board approved Work Plan (see Task 7).

Task 5: Evaluate Sources of OCs to San Diego Creek and Newport Bay; Identify and Implement Effective BMPs to Reduce/Eliminate Sources

Based on the regional monitoring program being implemented by the Orange County MS4 permittees and/or on the results of other monitoring and investigations, all MS4 permittees shall conduct source analyses in areas tributary to the MS4 system demonstrating elevated concentrations of OCs. Based on mass emissions monitoring (described below) and source analysis, the permittees shall implement additional/enhanced BMPs as necessary to ensure that organochlorine discharges from significant land use sources to surface waters are reduced or eliminated. As part of the investigation task, if the results indicate that additional OCs soil remediation is necessary on MCAS Tustin and MCAS El Toro, the responsible parties for such remediation will be identified. The responsible party will be tasked to implement those portions of the BMP plan identified for the responsible party for MCAS Tustin and MCAS El Toro.

The permittees shall develop and implement a collection program for all banned OC pesticides and PCBs. This type of program has had demonstrated success in other geographic areas in collecting and disposing of banned pesticides. Residents and businesses in the watershed may have stored legacy pesticides that could be collected through such a program; if this is the case, this task would prevent future use and improper disposal of these banned pesticides.

Implementation of these requirements shall commence upon issuance of appropriate Water Code Section 13267 letters or approval of an appropriately revised MS4 permits, whichever occurs first. Revisions to the Orange County MS4 permit and Caltrans SWMP shall implement requirements specified in applicable Section 13267 letters, if used to implement TMDL-related requirements. The 13267 letters/revised permit shall specify require the permittees to: (a) submit a proposed plan and schedule for source analyses of MS4 tributary areas with elevated OCs concentrations within 3 months of issuance of the 13267 letters or permit revision: (b) implement the proposed plan upon approval by the Regional Board's Executive Officer; (c) submit a report within 6 months of completion of the approved study plan. The report shall provide the study results and include a proposed plan and schedule for prioritized implementation of BMPs in OCs source areas; (d) implement the BMP plan upon Executive Officer approval.

The permittees may address these requirements through their participation in the development and implementation of an appropriate, Regional Board approved Work Plan (Task 7).

Task 6: Evaluate Feasibility and Mechanisms to Fund Future Dredging Operations

Because large-scale erosion and sedimentation primarily occurs during large storm events, traditional BMPs may have limited success in reducing/eliminating the discharge of potentially-contaminated sediments to receiving waters during wet weather. In such

cases, dredging within Newport Bay and/or San Diego Creek may be the most feasible and appropriate method of reducing OCs loads in these waters. However, the feasibility and effectiveness of dredging projects in removing OCs would require careful consideration, since dredging may or may not expose sediments with higher concentrations of OCs. Financing of such projects is also a significant consideration.

Entities discharging potentially contaminated sediment in the watershed shall analyze the feasibility of dredging to achieve water quality standards, and shall identify funding mechanisms for ensuring that future dredging operations can be performed, as necessary, within San Diego Creek, Upper and Lower Newport Bay. A report that presents the results of this effort shall be submitted no later than July 26, 2016. It is recognized that dredging activities are likely to be an integral part of efforts to comply with other established TMDLs, particularly the sediment TMDL. Ideally, dredging feasibility and funding investigations would be integrated with implementation and review of the sediment TMDL through the comprehensive Work Plan (Task 7). The responsible parties may address this Task requirement through their participation in the development and implementation of an appropriate, Regional Board approved Work Plan.

Task 7: Develop a Comprehensive Work Plan to Meet TMDL Implementation Requirements, Consistent with the Adaptive Management Approach

During the development of these organochlorine compounds TMDLs, regulated stakeholders in the Newport Bay watershed expressed concerns that the numeric targets used to develop the TMDLs, wasteload allocations and load allocations were flawed and that scientific review by an independent panel of experts was necessary. Further, these stakeholders suggested that pollutants other than the organochlorine compounds, such as metals, pyrethrins or other, emerging pollutants may pose the more real or significant threat to beneficial uses in the watershed. Finally, it was recommended that an integrated approach to TMDL implementation, and to the development of pending TMDLs and refinement of established TMDLs, would be a more effective and efficient approach.

Substantial efforts are already being made by many stakeholders in the watershed to address established permit and/or TMDL requirements for BMP implementation and monitoring and to conduct special investigations to understand and improve water quality conditions in the watershed. Thus, the framework exists to develop a comprehensive watershed plan for addressing water quality, not only as it relates to the organochlorine compounds, but on a larger scale that encompasses all sources of water quality impairment.

This implementation plan provides the opportunity for regulated stakeholders to form a Working Group and to participate in the development and implementation of a comprehensive Work Plan to evaluate the scientific basis of these organochlorine TMDLs, to prioritize TMDL implementation tasks, to integrate implementation with other TMDL and/or permit requirements, and to investigate unknown sources of toxicity in the

watershed. As noted in the previous Task descriptions, participation by responsible parties in the Working Group and the development and implementation of a Regional Board Work Plan would address the responsible parties' obligations pursuant to the Tasks in Table NB-OCs-13. Dischargers who elect not to participate in the Working Group/Work Plan will be required to implement these Tasks, as described above.

Dischargers interested in participating in a Working Group to develop and implement a comprehensive Work Plan must commit to do so by August 26, 2013. Submittal of a draft Work Plan is required no later than October 26, 2013. The schedules for implementation of the tasks identified in the Work Plan must reflect the shortest practicable time necessary to complete the tasks. Implementation of the Work Plan will commence upon approval of the Work Plan by the Regional Board at a properly noticed public hearing. Execution of the Work Plan must be complete within five years of Regional Board approval. Substantive changes to the tasks and schedules included in the approved Work Plan are contingent on Regional Board approval at a subsequent, properly noticed public hearing(s). However, the Regional Board's Executive Officer is authorized to revise the approved tasks and schedules if no significant comments are received during the public notice period.

At a minimum, the expected result of the execution of the Work Plan is a comprehensive, watershed plan for BMP implementation, monitoring, special investigations and other actions that will assure compliance with the OCs TMDLs, as they may be amended, as soon as possible after completion of execution of the Work Plan but no later than December 31, 2020[5].

The specific detailed Work Plan tasks and schedules will be determined as the Work Plan is developed. Regional Board staff will work with the Working Group to identify a suitable Work Plan. Key initial tasks are expected to include the following:

1. Convene an Independent Advisory Panel (IAP) of experts with relevant expertise. To avoid questions of objectivity, the panel shall be convened by a neutral third party organization such as the National Water Research Institute. The Working Group and Regional Board staff will work together to define the desired qualifications needed for IAP participants, define the scope and authority of the IAP, and identify and describe the primary issues that will require guidance, recommendations, or specific actions from the IAP.

2. Re-evaluate OCs TMDLs Numeric Targets and Loads

   With input and recommendations from the IAP, and using data being generated through ongoing scientific investigations in the watershed, the Work Plan should assess the current OCs TMDLs numeric targets, evaluate potential alternative numeric targets, and determine if the current targets should be revised, or whether targets based on site-specific data can be developed. If site-specific targets can be developed, the process or methods

[5] This compliance date is subject to change through the Basin Planning process.

that will be used to develop targets should be determined, such as risk assessments or re-calculation of targets using accepted, peer-reviewed scientific methodologies.

It is recognized that there is a need for flexibility to respond to unanticipated findings and events, and to changes that may be recommended by the Independent Advisory Panel (see below). However, at a minimum, each of the Tasks identified in Table NB-OCs-13 (except Task 1, which requires action by the Regional Board, and Task 4, which requires action by the Regional Board and the MS4 permittees based on established MS4 permit requirements) must be considered in Work Plan development and implementation. If one or more of these tasks is not proposed for inclusion in the Work Plan, or where modifications of these tasks/schedules are recommended, a written description and justification must be provided with the draft Work Plan submittal. In addition, consideration shall be given to the following:

Develop conceptual models

Data interpretation and monitoring must be organized around a systematic conceptual view of the sources of the different organochlorine compounds and their distribution and behavior in the watershed. Development of conceptual models for these compounds would significantly enhance our understanding of their sources and impacts and would help to structure hypothesis development, monitoring design, and data interpretation. Development of the conceptual models should be based on a review of available data and information about the OCs in the watershed, and the models should be updated as new information accumulates. Characterization of sources and of habitats at risk should be based on a review of available data, framed in terms of the conceptual models and supported with the collection of new data as needed. It is expected that the IAP would provide critical review and recommendations in this process.

Develop Information Management System

Different types of data – water column, sediment, fish or bird egg tissue, infaunal surveys, hydrology, etc. – are being or will be collected throughout the Newport Bay watershed through a variety of studies, monitoring programs, or other projects. Since these data are often collected for different purposes (e.g., in response to various TMDLs and/or permits), at different times and in different areas, much of the data may be in non-comparable formats, redundant, or not spatially or temporally compatible. In order to determine what data are useful or significant, where data gaps may still occur, or where current data needs are sufficient, a comprehensive information management system should be developed that (1) establishes clear procedures for assessing data quality for data acquisition and transfer and for control of evolving versions of datasets; (2) is a relational database that can manage the variety of data types and has appropriate mechanisms for ensuring and maintaining data quality; (3) can conduct quality control checks and needed reformatting to ensure needed

consistency across all data types and sources as data from other sources are obtained; (4) provides for straightforward query and data sub-setting routines to streamline access to the data; and (5) ensures that GIS capability is available for analysis, modeling, and presentation purposes. Development of a comprehensive information management system will allow for the identification of significant data gaps that need to be addressed and will provide a vehicle for establishing monitoring guidelines and preventing redundant or superfluous data collection.

To the extent that there are any conflicts between the individual tasks and schedules identified in Table NB-OCs-13, and the prioritized plan and schedule identified in the Work Plan, the Work Plan would govern implementation activities with respect to the stakeholders responsible for Work Plan development and implementation as part of the Working Group.

Task 8: Revise Regional Monitoring Program

The County of Orange, as Principal Permittee under the County's MS4 permit, oversees the countywide monitoring program. Implementation of the monitoring program is supported by funds shared proportionally by each of the Permittees named in the Orange County MS4 permit. Some monitoring requirements identified in this implementation plan are already reflected in the current program.

By October 26, 2013, the Orange County MS4 permittees shall: (1) document each of the current monitoring program elements that address the monitoring requirements identified in the preceding tasks; and, (2) revise the monitoring program as necessary to assure compliance with these monitoring requirements.

Review of/revisions to the monitoring program shall address:

(1) Estimation of mass emissions of chlordane, DDT, PCBs and toxaphene.

(2) Determination of compliance with MS4 wasteload allocations for Upper and Lower Newport Bay, and of status of achievement with the informational wasteload allocations for San Diego Creek for chlordane and PCBs.

(3) Assessment of temporal and spatial trends in organochlorine compound concentrations in water, sediment and tissue samples.

(4) Semi-annual sediment monitoring in San Diego Creek and Newport Bay. Measurements of sediment chemistry in these waters should be evaluated with respect to evidence of biological effects, such as toxicity and benthic community degradation.

(5) Evaluation of organochlorine bioaccumulation and food web biomagnification

(6) Assessment of the degree to which natural attenuation is occurring in the watershed.

Accurately quantifying the very small mass loads that are allowable under these TMDLs will be very challenging; analytical strategies for quantifying loads of the organochlorine compounds must be carefully explored.

Revisions to the monitoring program shall take into consideration the following recommendations provided by members of the Organochlorine Compounds TMDL Technical Advisory Committee (TAC):

(1) The analytical parameters measured need to be established for each matrix of interest (e.g., sediment, tissue, ambient water). The representative list of compounds to be measured needs to be identified (e.g., what chlordane compounds will be measured and summed to represent "total chlordane;" will PCB congeners be measured and summed or will Aroclors?).

(2) Data quality will need to be consistent with the State's Surface Water Ambient Monitoring Program (SWAMP). Detection limits, accuracy and precision of analytical methods should be adequate to assure the goals of the monitoring efforts can be achieved.

(3) Bioaccumulation/biomagnification in high trophic level predators may not immediately respond to load reductions; appropriate time scales and schedules for monitoring that are supported by empirical data and/or modeling should be established.

(4) Sentinel fish and wildlife species should be selected for monitoring based on home range, life history, size and age.

MS4 permittees may address the requirements specified herein by participation in the Working Group and development and implementation of an appropriate, Regional Board approved Work Plan (see Task 7).

Task 9: Conduct Special Studies

The following special studies should be conducted, in addition to the studies already underway in the watershed. This list is based, in part, on recommendations of the technical advisory committee for the organochlorine compounds TMDLs. These studies will be implemented as resources become available, and the results will be used to review and revise these TMDLs. Stakeholder contributions to these investigations are encouraged and would facilitate review of the TMDLs.

(1) Evaluation of sediment toxicity in San Diego Creek and tributaries, and Upper and Lower Newport Bay.

Previous studies have included Toxicity Identification Evaluations (TIEs) that

have yielded inconclusive results as to the cause of toxicity in Newport Bay. Sediment toxicity within San Diego Creek is not well-documented or well-understood. There is evidence that pyrethroid compounds may be a significant contributor. In determining the extent to which nonpolar organic compounds are causing or contributing to sediment toxicity, the differential contribution of both the organochlorine compounds and pyrethroids should be determined to assure that control actions are properly identified and implemented. Monitoring should be performed year-round at multiple locations within San Diego Creek and Newport Bay (to encompass spatial and temporal variability) and should include various land use types in order to quantify the relative contributions from various sources.

(2) Refinement of sediment and tissue targets.

A study is being conducted by the San Francisco Estuary Institute to develop indicators and a framework for assessing the indirect effects of sediment contaminants. The objective is to provide methodology that will assist in evaluating indirect adverse biological effects for bioaccumulative pollutants (e.g. due to food web biomagnification), as part of the overall goal of developing statewide sediment quality objectives. Newport Bay is being used as a case study to show how the proposed methodology could be implemented on a screening level. Multiple lines of evidence will be evaluated to determine impacts of organochlorine pesticides and PCBs to humans and wildlife. A conceptual foodweb model will be developed, and sensitive wildlife receptors will be identified. Empirical field data and a steady-state food web model will be used to calculate bioaccumulation factors for the organochlorine compounds. The bioaccumulation factors will be combined with effects thresholds to identify sediment concentrations that are protective of target wildlife and humans.

Once completed by SFEI, a thorough evaluation of the Newport Bay case study needs to be initiated, and any additional analyses required for a more in-depth risk analysis should be identified and completed. Protective sediment and tissue targets for indirect effects to humans and wildlife should be developed by the time the TMDLs are re-opened. Furthermore, once TIEs have identified the likely toxicant(s) responsible for sediment toxicity in San Diego Creek and Newport Bay (direct effects), field and laboratory studies should be conducted in order to determine bioavailability and the dose-response relationship between sediment concentrations and biologic effects.

(3) Evaluation of regional BMPs (e.g., constructed wetlands and sediment detention basins) for mitigating potential adverse water quality impacts of sediment-associated pollutants (e.g., OCs, pyrethroids).

Large-scale, centralized BMPs such as constructed wetlands and storm water retention basins may be more effective than project-level BMPs in reducing adverse environmental impacts of sediment-borne pollutants. Regional BMPs are

either being planned or are in place within the watershed (e.g., IRWD NTS). Their potential effectiveness for capturing the organochlorine compounds and mitigating impacts needs to be evaluated.

(4) Improvement in linkage between toxaphene measured in fish tissue and toxaphene in bed sediments.

The toxaphene impairment listing for San Diego Creek is based on fish tissue exceedances that have no measured linkage with toxaphene in sediments. While sediment is the primary TMDL target for these TMDLs, toxaphene is usually not detected in sediment. Because of its chemical complexity, there is a large degree of analytical uncertainty with measurements of toxaphene in environmental samples that use standard methods (e.g., EPA Method 8081a), especially at low levels. Confirmations of toxaphene in fish and sediment samples in San Diego Creek (and possibly Newport Bay) using other techniques (e.g., GC-ECNI-MS or MS/MS) is recommended.

(5) Evaluation of relative importance of continuing OCs discharges to receiving waters through erosion and sedimentation processes, versus recirculation of existing contaminated bed sediments, in causing beneficial use impairment in San Diego Creek and Newport Bay.

This study should allow for determination of the most effective implementation strategies to reduce organochlorine compounds in the MS4 and other receiving waters.

Phase II Implementation

Task 10: TMDL Reopener

These TMDLs will be reopened no later than July 26, 2018 in order to evaluate the effectiveness of Phase I implementation. At that time, all new data will be evaluated and used to reassess impairment, BMP effectiveness, and whether modifications to the TMDLs are warranted. If BMPs implemented during Phase I have been shown to be ineffective in reducing levels of organochlorine compounds, then more stringent BMPs may be necessary during Phase II implementation.

Implementation of these TMDLs and the schedule for implementation are very closely tied with other TMDLs that are currently being implemented in the watershed. The sediment TMDL allowable load for San Diego Creek was the basis for calculating organochlorine compound loading capacities. The sediment TMDL is scheduled for revision in 2007; changes to the sediment TMDLs will likely necessitate changes to these organochlorine compounds TMDLs as well.

(End of amendment adopted under Resolution No. R8-2011-0037)

4.c. Se TMDLs for Selenium in Freshwater, Newport Bay Watershed

These TMDLs were adopted by the Regional Water Quality Control Board, Santa Ana Region on August 4, 2017 (**Resolution No. R8-2017-0014**).

These TMDLs were approved by:

- The State Water Resources Control Board on September 20, 2018 (Resolution No. 2018-0041).
- The Office of Administrative Law on April 19, 2019.
- The U.S. Environmental Protection Agency on June 20, 2019.

The elements of the TMDLs are presented in Table 4.c.Se.1 and the Implementation Tasks and Compliance Schedule are presented in Table 4.c.Se.2. The documentation prepared to support the adoption of these TMDLs can be found at the Regional Board's website: http://www.waterboards.ca.gov/santaana/water_issues/programs/tmdl/Se_tmdl.shtml

Table 4.c.Se.1: Total Maximum Daily Load (TMDL) Summary - Newport Bay Watershed Selenium TMDLs

Phasing of the Selenium TMDLs
These selenium TMDLs are being established and implemented as phased TMDLs, consistent with USEPA guidance (USEPA, 2006b) and based upon a three-part structure: • Phase I – Completion as soon as possible, but no later than 6 years from the effective date of the proposed selenium TMDLs[6]. • TMDL Reconsideration – Completion as soon as possible, but no later than 2 years after Phase I. Reconsideration of the proposed selenium TMDLs will be no later than 8 years from the effective date of the proposed selenium TMDLs. • Phase II – Completion as soon as possible, but no later than 30 years from the effective date of the reconsidered selenium TMDLs[7]. If reconsidered selenium TMDLs are not in effect 8 years after the effective date of the original proposed selenium TMDLs, Phase II actions will commence at this time. In this circumstance, changes in the reconsidered selenium TMDLs will be incorporated into Phase II at the time they become effective.

[6] Each individual action will be scheduled as a specific number of years/months from the effective date of the proposed selenium TMDL/reconsidered selenium TMDL (as applicable).
[7] *Ibid.*

Phased TMDL Structure. Phase I and Phase II must be completed as soon as possible, but no later than, the specified timeframes.

Problem Statement

Selenium is a naturally occurring element that may bioaccumulate through the food chain to levels that can cause adverse effects on higher-level aquatic life and wildlife, including fish and birds that prey on fish and invertebrates.

The beneficial uses most at risk from selenium bioaccumulation include warm freshwater habitat (WARM), estuarine habitat (EST), marine habitat (MAR), preservation of biological habitats of special significance (BIOL), wildlife habitat (WILD), rare, threatened, or endangered species (RARE), and spawning, reproduction, and development (SPWN).

The applicable narrative water quality objectives for toxic substances specify:

"Toxic substances shall not be discharged at levels that will bioaccumulate in aquatic resources to levels which are harmful to human health.

The concentrations of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses."

The 2000 California Toxics Rule (CTR) establishes criteria for the protection of aquatic life for selenium for freshwater and enclosed bays and estuaries as follows:

- a chronic criterion for total recoverable selenium in freshwater of 5 µg/L;
- a chronic criterion for total dissolved selenium in saltwater (including enclosed bays and estuaries) of 71 µg/L; and
    - an acute criterion for total dissolved selenium in saltwater (including enclosed bays and estuaries) of 290 µg/L.

San Diego Creek Reach 1 is the only waterbody in the Newport Bay watershed listed as impaired for selenium on the 2010 303(d) list[8] (the most recent 303(d) list). This listing was based on water column data. Other areas of the Newport Bay watershed were not identified

[8] http://www.waterboards.ca.gov/water_issues/programs/tmdl/2010state_ir_reports/category5_report.shtml

as impaired. The impairment assessment for these selenium TMDLs evaluated water and tissue data from 2001 – 2013 for several key areas within the Newport Bay watershed:

- San Diego Creek (SDC) Subwatershed
- Santa Ana-Delhi Channel (SADC) Subwatershed[9]
- Big Canyon Wash (BCW) Subwatershed[10]
- Other Freshwater Drainages Tributary to Upper Newport Bay (Costa Mesa and Santa Isabel Channels)[11]
- Salt Water / Estuarine

Since the primary route for selenium bioaccumulation is through diet, not water, the impairment assessment was completed using the numeric targets selected for these TMDLs for both freshwater fish tissue and bird egg tissue to assess conformance with the applicable narrative objective (see Numeric Targets section for the applicable tissue-based numeric targets). Selenium concentrations in fish tissue, bird egg tissue, and water were compared to the applicable tissue-based and water column-based concentrations as presented in the following table. This approach is consistent with Section 6.1.3 of the Listing Policy[12]. However, since the CTR criteria are the currently applicable numeric objectives, this impairment assessment also relies on the comparison of water column data for the freshwater and saltwater bodies in the watershed to the appropriate CTR criteria.

In addition, given that the approach to selenium at the local, state, and federal levels has evolved to focus more on tissue-based ecological risk rather than water column exceedances, and, as the SSOs under development for the watershed are based solely on bird egg and fish tissue, the impairment assessment includes a two-tiered approach. This approach is consistent with the structure of the numeric targets and includes:

- Tissue-based impairment: impairment based upon exceedances of the fish tissue and/or bird egg tissue numeric targets, which are established in these TMDLs to interpret the narrative water quality objective;
- Water column-based impairment: impairment based *solely on* exceedances of the CTR water column-based numeric targets (no evidence of exceedances of

[9] http://www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan/docs/rec_standards/SWRCB/20140121_Attachment%202.pdf
Attachment 1 to Resolution No. R8-2012-0001
The State Water Resources Control Board approved amendments to the Basin Plan that revise recreational standards for inland fresh surface waters in the Region, as well as adding the Santa Ana-Delhi Channel as a named waterbody with designated beneficial uses. The Regional Board adopted these amendments in 2012 and they were partially approved by USEPA Region IX on April 8, 2015. USEPA Region IX issued a letter clarifying the April 8, 2015 decision letter on August 3, 2015.

[10] Big Canyon Wash is not a named waterbody within this Basin Plan with directly assigned beneficial uses.

[11] There are no freshwater drainages tributary to Lower Newport Bay

[12] *Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List*

the tissue-based numeric targets). If and when the current selenium water quality objectives in the CTR cease to apply to these waters (e.g., if site-specific objectives are adopted for the waters) then waterbodies categorized as impaired solely due to CTR exceedances will no longer be considered to be impaired.

Concentrations Used to Assess Selenium Impairment in Tissue and Water

Media	Basis for Tissue-Based Impairment Ecological Risk		Basis for Water Column-Based Impairment CTR Ambient Water Quality Chronic Criteria	
	Freshwater (µg Se/g dw)	Saltwater (µg Se/g dw)	Freshwater (µg Se/L)	Saltwater (µg Se/L)
Water	--	--	5	71
Fish tissue	5 and 8.1[1]	--	--	--
Egg tissue	8	8	--	--

[1] There are two applicable fish tissue numeric targets: (1) as a dietary item for the protection of birds (5 µg Se/g dw); and, (2) for the protection of fish (8.1 µg Se/g dw). The 5 µg Se/g dw fish tissue numeric target applies where bird eggs are not attaining the 8 µg Se/g dw bird egg tissue numeric target. The 8.1 µg Se/g dw fish tissue numeric target applies where birds are attaining the 8 µg Se/g dw bird egg tissue numeric target.

The assessment confirmed the impairment in San Diego Creek Reach 1 and for the San Diego Creek subwatershed as a whole, including Peters Canyon Wash, and identified additional impairments for selenium in the Big Canyon Wash subwatershed and the Santa Ana-Delhi Channel. Through the end of 2013 (the assessment period for these TMDLs), no nesting birds have been found and therefore, no bird egg tissue samples have been collected from the Santa Ana-Delhi Channel. Two composite mosquitofish tissue samples were collected from the Santa Ana-Delhi Channel in 2014, but as these data were collected after the data cutoff date of 2013, they were not included in the impairment assessment. These data will be considered during future impairment assessments. Future monitoring efforts will continue to attempt to collect tissue samples from this subwatershed.

Veeh Creek is a small tributary drainage that is located at the extreme southeastern end of the San Diego Creek subwatershed and is hydrologically isolated from the lower San Diego Creek subwatershed assessment area. Though water column impairment based on the CTR chronic criterion for freshwater was found at three locations in Veeh Creek, no fish or bird egg tissue data are yet available to assess whether and to what degree these or other organisms are or may be impacted by selenium. (As discussed above, selenium is primarily accumulated in organisms through diet and in a highly site-specific manner; the CTR freshwater chronic criterion for selenium is, therefore, not a suitable indicator of the potential threat to organisms.). For these reasons, additional investigations are needed to determine the extent and any associated potential impacts to fish, birds or other organisms that may be occurring in this small tributary drainage as a result of selenium. Therefore, the implementation strategy for Veeh Creek during Phase I of these TMDLs will be to collect more data so that the area

can be better evaluated. Once that information is available, it can be used during the TMDL reconsideration to determine what, if any, management actions would be feasible and appropriate to address selenium concentrations in that area. Those management actions would then be implemented during Phase II of the TMDLs.

Ambient selenium concentrations in Upper and Lower Newport Bay are orders of magnitude below the CTR saltwater chronic criterion of 71 µg Se/L. In addition, the tissue samples collected in Upper and Lower Newport Bay did not meet the listing criteria, were not available (e.g., no bird eggs have been collected from Lower Newport Bay[13]), or could not be assessed due to the lack of an appropriate screening value[14]. Thus, TMDLs for selenium do not need to be developed for Upper and Lower Newport Bay. It is also important to note that the primary sources of selenium to Newport Bay are the freshwater tributary drainages. Any reductions in selenium concentrations in the freshwater tributaries will also reduce selenium concentrations in the Bay.

Additionally, selenium concentrations in the Other Freshwater Drainages Tributary to Upper Newport Bay (Costa Mesa and Santa Isabel Channels) did not exceed the CTR freshwater chronic criterion of 5 µg Se/L. Although tissue samples have not been collected from these drainages, given their small areal extent, limited suitable habitat, and low selenium concentrations, it is not likely that fish or birds that may live or forage in these drainages are at risk from selenium. For these reasons, TMDLs do not need to be developed for these other freshwater drainages tributary to Upper Newport Bay.

Numeric Targets

As selenium is primarily accumulated in organisms through diet, and because bioaccumulation is highly site-specific, water column concentration-based criteria are not as suitable, especially for predicting chronic effects, as tissue-based targets. Recent efforts at revising selenium criteria at the federal, state, and local level have recognized that a tissue standard may be a more appropriate way to regulate selenium. For these reasons, tissue-based numeric targets for fish tissue and bird eggs are established in these selenium TMDLs. These targets are an interpretation of the narrative toxic substance objective (identified in the Problem Statement section). Since the CTR water column criteria are currently applicable numeric objectives, unless and until replaced by revised objectives (which could include SSOs), a water column numeric target consistent with the CTR is also included. However, SSOs for selenium, expressed as numeric concentrations in fish tissue and bird egg tissue, are currently under development and are expected to be proposed for adoption within one to two years after the effective date of these selenium TMDLs. The selenium SSOs are expected to be consistent with the fish tissue and bird egg tissue numeric targets in these TMDLs. If the revised objectives are approved and replace the current CTR freshwater chronic criterion for the Newport Bay watershed, the numeric water column-based target will no longer be in effect and numeric targets for these selenium TMDLs will consist only of the recommended fish tissue and bird egg tissue concentrations.

[13] No nesting aquatic-dependent birds have been found in Lower Newport Bay, likely as a result of the lack of available nesting habitat in this highly urbanized area.
[14] The fish tissue numeric targets apply only to freshwater fish.

The following table provides the bird egg tissue, fish tissue, and freshwater water column numeric targets for the selenium TMDLs in the Newport Bay Watershed. The numeric targets address beneficial uses related to aquatic life and aquatic-dependent wildlife, the most sensitive beneficial uses in the watershed. The applicable fish tissue numeric target depends upon the attainment of the bird egg target. Where the bird egg target is attained, the fish tissue target of 8.1 ug/Se g dry weight (dw) applies. This target serves as a protective target for fish as a separate endpoint. Where the bird egg tissue target is not attained, the fish tissue target of 5 µg Se/g dw applies[15]. This target serves as a protective dietary target for aquatic-dependent shorebirds and only applies if the bird egg tissue target is not being attained at a fish tissue concentration of 8.1 µg Se/g dw.

Numeric Targets for Selenium in the Newport Bay Watershed

Tissue-based Numeric Targets Where Bird Egg Tissue Targets Not Attained[1,2]		**Water Column-based Numeric Target[3]**
Bird Egg[4] Tissue	**Fish Tissue**	**Freshwater Water Column**
8 µg Se/g dw	5 µg Se/g dw OR site-specific fish tissue concentration at which the bird egg target is met	5 µg Se/L
Tissue-based Numeric Targets Where Bird Egg Tissue Targets Attained[1,2]		**Water Column-based Numeric Target[3]**
Bird Egg[4] Tissue	**Fish Tissue**	**Freshwater Water Column**
8 µg Se/g dw	8.1 µg Se/g dw	5 µg Se/L

1 The tissue-based targets are subject to revision upon adoption and approval of revised objectives (e.g., site-specific objectives). Such revisions would require a Basin Plan Amendment.

2 The applicable fish tissue numeric target depends upon the attainment of the bird egg target.
   a. Where the bird egg target is attained, the fish tissue target of 8.1 µg Se/g dw applies. This target serves as a protective target for fish as a separate endpoint.
   b. Where the bird egg tissue target is not attained, the fish tissue target of 5 µg Se/g dw, or a site-specific fish tissue concentration at which the bird egg target is met, applies. This target serves as a protective dietary target for aquatic-dependent shorebirds and only applies if the bird egg tissue target is not being attained at a fish tissue concentration of 8.1 µg Se/g dw.

3 Target is based on CTR criterion for freshwater. This target will no longer be in effect once the CTR freshwater criterion has been replaced by revised objectives (e.g., SSOs).

4 Aquatic-dependent shorebirds

[15] If the bird egg tissue target is attained at a fish tissue concentration other than 5 µg Se/g dw (i.e., at a concentration less than 5 µg Se/g dw or between 5 and 8.1 µg Se/g dw), then that fish tissue concentration becomes the site-specific fish tissue numeric target for that area.

Source Analysis

Inputs of selenium to surface waters in the Newport Bay watershed come from both point and non-point sources. Point sources include urban runoff, groundwater dewatering, groundwater dewatering and cleanup, and nursery operations. Non-point sources include agriculture discharges, atmospheric deposition, open space, and rising groundwater[16].

Selenium sources were evaluated based upon an estimate of the total load and water column concentrations. The analysis was not broken out by flow condition (dry vs. wet weather), but was evaluated seasonally (summer season (April 1 – September 30) and winter season (October 1 – March 31)). Consideration of the critical conditions (e.g., breeding seasons, dry weather vs. wet weather) and seasonal variations is reflected in the TMDLs and the wasteload allocations (WLAs) and load allocations (LAs).

The source analysis evaluated total selenium loads to provide the potential magnitude of each source. Concentrations were also analyzed in order to provide a sense of the particular biological risk from a source (since concentrations tend to be a more biologically significant indicator of ecological risk from selenium than load). As data allowed, source categories were evaluated for the entire Newport Bay watershed as well as each of the three subwatersheds (San Diego Creek, Santa Ana-Delhi Channel, and Big Canyon Wash). However, due to data limitations, not all sources could be evaluated at the subwatershed scale.

Based on the Source Analysis, the following key conclusions can be made:

- Groundwater is the predominant source of selenium in the Newport Bay watershed. It enters surface waters either through point source discharges (e.g., dewatering operations) or more commonly through non-point source (NPS) rising groundwater. Of these sources, NPS rising groundwater is the major source of selenium inputs into surface waters in the watershed.
- Urban runoff is not a significant source of selenium. From a load perspective, urban runoff generates a relatively high load. However, this load is driven by volume, not concentration. Urban runoff concentrations are well below the CTR freshwater chronic criterion, with an annual median concentration of 0.90 µg/L, and a maximum concentration of 3.1 µg/L.
- Discharges from the City of Irvine's dewatering operations contain moderate concentrations of selenium (annual median concentration of 29 µg/L), but generate a relatively minor annual load of 14 lbs/year, which has been drastically reduced in recent years. [17]

[16] Throughout this TMDL document, the term 'rising groundwater' is used to describe groundwater intercepted by channels (i.e., lateral groundwater inflows, shallow groundwater, or shallow exfiltrating groundwater), as well as an actively rising water table with artesian conditions. In most areas of the Newport Bay watershed, "rising groundwater" refers to the condition where groundwater is intercepted by channels; however, the artesian conditions typically associated with the term "rising groundwater" exist in the Newport Bay watershed in localized areas.

[17] The BMP Strategic Plans detail projects which are in development to address these discharges, and these loads are anticipated to be removed from the system. See Implementation Plan for additional details regarding the BMP Strategic Plans.

- General dewatering discharges are highly variable from year to year. Caltrans and Irvine Ranch Water District have consistent dewatering activities, with the Caltrans dewatering accounting for an estimated annual load averaging 51 lbs in the winter season and 52 lbs in the summer season. Caltrans currently sewers the groundwater, but it would otherwise represent both a significant source from a concentration, as well as load perspective, if discharged to surface waters. However, Caltrans is unlikely to discharge to receiving waters in the future except under exceptional circumstances.
- Other than Caltrans loads, which are sewered, the groundwater dewatering and cleanup selenium loads were not consistent from year to year during the period of record because many are short-term discharges and their loads can be highly variable.
- Atmospheric deposition, agricultural runoff, open space runoff, and nursery discharges are all considered relatively insignificant sources of selenium.

Linkage Analysis

The biodynamic model developed by the United States Geological Survey (USGS) staff (hereinafter referred to as the biodynamic model) was adapted for use in the Newport Bay watershed and used to calculate water column concentrations for fish and bird eggs in Newport Bay. The biodynamic model links waterborne concentrations of selenium to the selenium concentrations in particulates. From there, the model then follows selenium concentrations up through the food web, taking into account specific transfer factors between different trophic level organisms. This biodynamic model can be used to predict the probable selenium concentration in water that would correspond with a specific tissue concentration, such as a guideline or numeric target, or it can take a water column selenium concentration and use it to predict the probable selenium concentration in a target organism, such as fish or birds. To apply the biodynamic model to the Newport Bay watershed, USGS staff used available site-specific data on seasonal concentrations of selenium in water, waterborne particulates, algae, surficial bed sediment, aquatic invertebrates, fish, and bird eggs as input values into the model.

The Presser-Luoma model upon which the Newport Bay watershed biodynamic model is based is a mechanistic model that considers geochemical influences and biological differences empirically. For selenium, it provides a means to model site-specific food web structures by quantifying selenium transformation from the dissolved phase to the particulate phase (as determined by the partitioning coefficient, K_d) and to biota (via diet and tissue trophic transfer factors, TTFs).

The biodynamic model was used to predict probable selenium water column concentrations from the tissue-based numeric targets for the different food webs and hydrologic compartments in the watershed using the following steps:

1. Calculate the K_d using Equation 1:

$$K_d = \frac{Se_{particulate}\ (ppm\ dry\ weight)}{Se_{water}\ (ppb)} x\ 1{,}000$$

2. Calculate the TTF for particulates to invertebrates using Equation 2:

$$TTF_{invertebrate} = \frac{C_{invertebrate}}{C_{particulate}}$$

3. Calculate the TTF for invertebrates to fish[18] (Equation 2):

$$TTF_{fish} = \frac{C_{fish}}{C_{invertebrate}}$$

4. Calculate the TTF for fish to bird eggs[19] (Equation 2):

$$TTF_{bird} = \frac{C_{bird}}{C_{fish}}$$

Then:

5a. Translate the target fish tissue concentration to a water column concentration (µg dissolved Se/L):

Piscivorous fish food web

$$C_{water}\ (\mu g\ \mathrm{Se/L}) = \frac{C_{fish\ target}/TTF_{fish}}{TTF_{fish} \times TTF_{invertebrate} \times K_d} \times 1000$$

Invertivorous fish food web

$$C_{water}\ (\mu g\ \mathrm{Se/L}) = \frac{C_{fish\ target}/TTF_{fish}}{TTF_{invertebrate} \times K_d} \times 1000$$

Or:

5b.Translate the target bird egg tissue concentration to a water column concentration (µg dissolved Se/L):

Piscivorous bird food web

$$C_{water}\ (\mu g\ \mathrm{Se/L}) = \frac{C_{bird\ target}/TTF_{bird}}{TTF_{fish} \times TTF_{invertebrate} \times K_d} \times 1000$$

Invertivorous bird food web

$$C_{water}\ (\mu g\ \mathrm{Se/L}) = \frac{C_{bird\ target}/TTF_{bird}}{TTF_{invertebrate} \times K_d} \times 1000$$

[18] For piscivorous fish, a second step is needed for calculating the TTF from prey fish to predator fish:

$$TTF_{fish} = \frac{C_{predatory\ fish}}{C_{prey\ fish}}$$

[19] For non-piscivorous birds, calculate the TTF from invertebrates:

$$TTF_{bird} = \frac{C_{bird}}{C_{invertebrate}}$$

The following table provides the input parameters used in the biodynamic model:

Input Parameters for the Biodynamic Model

Numeric Targets	
Bird egg	8 µg Se/g dw
Fish (whole body as a dietary target for protection of birds)[1]	5 µg Se/g dw
Fish (whole body, as a low effect concentration for the protection of fish)	8.1 µg Se/g dw
K_ds (Fish Tissue Targets)	
Peters Canyon Wash (mean)	98
Peters Canyon Wash (85th percentile)	161
Lower San Diego Creek[3] (75th percentile)	163
Lower San Diego Creek[3] (85th percentile)	272
IRWD Constructed Treatment Wetlands (75th percentile)	273
IRWD Constructed Treatment Wetlands (85th percentile)	320
San Joaquin Marsh Reserve (UCI wetlands) (mean)	1440
San Joaquin Marsh Reserve (UCI wetlands) (75th percentile)	1341
Combined Lower SDC and IRWD Constructed Treatment Wetlands (75th percentile)	218
Combined Lower San Diego Creek and IRWD Constructed Treatment Wetlands (85th percentile)	296
Santa Ana-Delhi Channel (85th percentile)	165
Big Canyon Wash (lower stream and pond areas) (mean)	3308
Big Canyon Wash (lower stream and pond areas) (median)	2992
K_ds (Bird Egg Target)	
Peters Canyon Wash[4]	NA
Lower San Diego Creek (75th percentile)	65
Lower San Diego Creek (85th percentile)	108
Lower San Diego Creek (median)	95
IRWD Constructed Treatment Wetlands (mean)	213
IRWD Constructed Treatment Wetlands (median)	171

San Joaquin Marsh Reserve (UCI wetlands) (median)	688
Combined Lower SDC and IRWD Constructed Treatment Wetlands (75th percentile)	139
Combined Lower San Diego Creek and IRWD Constructed Treatment Wetlands (85th percentile)	139.5
Santa Ana-Delhi Channel[4]	NA
Big Canyon Wash (lower stream and pond areas) (mean)	3308
Big Canyon Wash (lower stream and pond areas) (median)	2992
TTFs (equation 2)	
Fish or invertebrate to bird eggs (TTF_{bird})	1.8
Prey fish to predator fish ($TTF_{piscivorous\ fish}$)	1.1
Invertebrate or particulate to fish ($TTF_{invertivorous\ fish}$ or $TTF_{detritivorous\ fish}$)	1.1
Particulate to freshwater (generic) invertebrate ($TTF_{invertebrate}$)	2.8
Lower San Diego Creek field-derived particulate to freshwater invertebrate ($TTF_{invertebrate}$)	3.7

[1] Both as a protective concentration for fish reproduction and as a dietary value for aquatic-dependent birds.

[2] Suspended particulate data were only available for Big Canyon Wash K_ds were calculated based on sediment concentrations for the remaining sites.

[3] Smaller particle sizes typically have higher Se concentrations than coarser particles. Selenium concentrations in the silt/clay fractions collected from SDC Basin 2 sediments in 2004 were compared with whole sediment Se concentrations in sediments collected from SDC Basin 2 sediments in 2003. The mean concentrations in the silt/clay fractions were (on average) 2.52 times higher in the 2004 silt/clay fractions than in the 2003 whole sediments (Appendix O). Therefore, for this location, this ratio was applied to all selenium concentrations in whole sediments from Lower SDC to estimate the particulate selenium concentration that is accessible to organisms. None of the other assessment areas had data that could be used to determine selenium concentrations in the silt/clay fraction of the sediments.

[4] The model was not run for the bird egg tissue target in this location. In Peters Canyon Wash, there was difficulty validating the model for bird eggs. In Santa Ana-Delhi Channel, no bird egg data were available.

The model used the species of fish or birds for which the most data were available, which included:

- Sediment or invertebrates→fish (for lower trophic level fish such as mosquito fish)
- Invertebrates→fish (for intermediate trophic level fish such as bluegill or similar fish that ingest invertebrates)
- Invertebrates→birds (for shorebirds such as black-neck stilts).

The following table shows the predicted probable dissolved selenium water column concentrations generated by the biodynamic model for the different hydrologic units and TMDL numeric tissue targets:

Ambient Selenium Water Column Concentrations (µg/L) Compared to the Range in Probable Selenium Water Column Concentrations (µg/L) Predicted by the Biodynamic Model (predicted water column concentrations are rounded to the nearest whole number)

	***San Diego Creek Subwatershed*[1]**						
	Lower San Diego Creek	Peters Canyon Wash	IRWD Constructed Treatment Wetlands	Combined Lower SDC & IRWD Wetlands	San Joaquin Marsh Reserve (UCI Wetlands)	Santa Ana-Delhi Channel	Big Canyon Wash Sub-watershed
	Ambient Water Column Concentrations ± 95% confidence interval						
	13.8±0.4	30±1.3	14.4±1.5	14.2	2.3 ±0.7	10.7±0.5	15±1.9
Tissue Target	**Predicted Probable Selenium Water Column Concentrations**						
8.1 µg Se/g dw[2]	6 – 10	16 – 27	8 - 10	8 - 10	2	16	2 – 3
8 µg Se/g dw[3]	11 – 19		7 - 9	10	2		1
5 µg Se/g dw[4]							1 - 2

1. For purposes of these proposed selenium TMDLs, allocations are established at the subwatershed or channel scale. The San Diego Creek subwatershed was modeled at a more refined scale to guide management actions.
2. Numeric Target for protection of fish. Highest confidence in terms of best fit validation.
3. Numeric Target for the protection of birds. Poorest fit to model because of variable bird species, diets, foraging ranges, and uncertainty in trophic transfer factor from invertebrates to birds to their eggs. Water values are least certain for this target. Probable selenium water column concentrations were not predicted for Santa Ana-Delhi Channel based on the absence of bird data from this area. Probable selenium concentrations were not predicted for Peters Canyon Wash because there is less certainty in establishing a justifiable water column concentration based upon modeling for bird eggs because of the difficulty in validating the model for bird eggs.
4. Numeric Target for fish – as a dietary item for the protection of aquatic-dependent birds, particularly shorebirds. Where birds meet the bird egg tissue target, the fish tissue-based dietary target is not applicable. Therefore, based upon current data, only the areas where the bird egg tissue target is not being met include probable water concentrations to meet the fish tissue target of 5 µg Se/g dw.

The K_d values used for the different hydrologic compartments in the Newport Bay watershed result in a range in possible water column concentrations for each hydrologic unit. Because of this variability, the predicted probable dissolved selenium water column concentrations may change as additional data are collected during implementation of these selenium TMDLs.

TMDLs and Allocations

For these selenium TMDLs, the loading capacities for the freshwater waterbodies in the watershed are established based on 1) the CTR, and 2) the water column concentrations predicted from the tissue-based numeric targets, as described in the Linkage Analysis. If and when revised selenium objectives (e.g., SSOs) are established, and the current CTR criterion is depromulgated for the Newport Bay watershed, the CTR water column-based loading capacities will no longer be in effect for these selenium TMDLs.

As there is inherent uncertainty with any model, including the biodynamic model, the actual water column concentrations at which the tissue-based targets are attained may differ from the predicted concentrations derived in the Linkage Analysis. Therefore, once the tissue-based numeric targets are attained, the tissue-based loading capacity/TMDL is equivalent to the water column concentrations that achieve those tissue-based concentrations.

Protection of beneficial uses requires consideration of both the periods of highest selenium exposure (dry weather flows) and the periods of greatest potential harm to the beneficial uses (breeding season and periods of embryonic and/or juvenile development). Dry weather conditions with flows occur year-round, and therefore, present potential periods of high selenium exposure all year. The period of potential greatest harm due to selenium exposure occurs seasonally (spring and early summer). As a result, consideration of seasonal variations could result in the development of different allocations for different periods of the year or the application of the allocations only during the breeding season. However, to ensure protection of beneficial uses both during the sensitive period and from the higher selenium concentrations that occur during dry weather, a year-round application of the TMDLs and allocations during dry weather conditions is the most protective approach.

Further, to evaluate the influence of seasonality and to provide the most protective assessment of beneficial uses, an averaging period for the WLAs and LAs is appropriate. Averaging periods for the allocations are based on the potential impacts from selenium exposure and variability in observed receiving water data. Since the protection of beneficial uses is linked to chronic not acute selenium conditions, a semi-annual averaging period utilizing an arithmetic mean is appropriate for these TMDLs and allocations. The semi-annual averaging periods are defined as April 1 through September 30 and October 1 through March 31 each year.[20]

For purposes of these selenium TMDLs, wet and dry weather are defined as follows:

- Wet weather: Any day with 0.1 inches of rain or more, as measured at the Tustin-Irvine Ranch[21] Rain Gauge Station, and the following three days (72 hours).
- Dry weather: Any non-wet weather day.

[20] Note that this averaging period specifically applies to the concentration-based WLAs and LAs. As specifically noted in these selenium TMDLs, where the tissue-based numeric targets are attained, the WLAs/LAs shall be deemed to be attained. In evaluating the tissue-based numeric targets, an annual averaging period is more appropriate since bird eggs are only available during a very limited time of the year, and fish tissue and other biota should also be collected during the same timeframe that the birds are breeding since they constitute a likely source of selenium input. Because selenium concentrations in fish and bird egg tissue are expected to be much more variable than those in water, a geometric mean statistical approach should be employed for evaluating tissue data.

[21] Tustin-Irvine Ranch #61. Latitude = 33.719984, Longitude = -117.723111, Elevation = 507 feet.

These selenium TMDLs establish WLAs and LAs based upon the following:

- **Tissue-Based Water Column WLAs and LAs.** Ranges of water column concentrations necessary to achieve the tissue-based numeric targets were predicted for the freshwater areas of the watershed using the biodynamic model. These tissue-based water column concentrations, as opposed to the CTR-based water column concentration, provide a direct link to protection of beneficial uses (as they are derived from the tissue-based targets) and are, therefore, established as WLAs and LAs for these selenium TMDLs. These tissue-based allocations consider the following:

  - **Phase I[22] of the Selenium TMDLs: Selection of Protective Water Column Concentrations.** A range of loading capacities was derived from the biodynamic model for the three subwatershed areas. The range of results reflects the heterogeneity of the watershed, as well as the complexity in the pathways of selenium accumulation in the local foodweb. All of the results are deemed equally valid for predictive purposes (i.e., there is not a single "most appropriate" number that results from running the biodynamic model that definitively corresponds with the protection of beneficial uses). Further, there are several endpoints that are modeled (bird eggs for the protection of birds, fish tissue as a dietary component for protection of birds, fish tissue for the protection of fish). Therefore, the establishment of WLAs and LAs necessitates selection of a particular water column concentration from these ranges for each of the subwatershed areas as a starting point, with adjustments made if and as necessary based on monitoring and/or refined modeling. This initial selection is based upon concentrations that are expected to result in protection of beneficial uses, but is not intended to be considered the only concentration that is appropriate (e.g., tissue-based targets may be attained at higher or lower concentrations).

    For each subwatershed, the upper end of the applicable predicted range of probable selenium concentrations has been selected for the establishment of allocations during Phase I of these selenium TMDLs. As noted above, while the model results in a range of possible concentrations, all modeled concentrations are considered equally predictive of what is needed to protect beneficial uses since the range results from various pathways of potential accumulation in various foodwebs. This approach supports the adaptive management component of these selenium TMDLs that requires iterative BMP implementation, focused on reductions in selenium concentrations until the tissue-based targets (and CTR water column-based targets, to the extent they remain in effect) are achieved. Further, as these selenium TMDLs will be incorporated into regulatory mechanisms, including NPDES permits, decreasing rather than increasing the WLAs over time, if necessary and appropriate, will comply with the general prohibition on anti-backsliding. However, as previously noted, the water column concentrations predicted from

[22] As described in the Implementation Plan, these selenium TMDLs are being established and implemented as phased TMDLs, consistent with USEPA guidance and based upon a three-part structure: Phase I, TMDL Reconsideration, and Phase II.

the tissue-based numeric targets are expected to result in protection of beneficial uses, but are not intended to be considered the only concentrations that are appropriate. As a result, consistent with the general prohibition on anti-backsliding, the WLAs may be adjusted up over time if new information is available that was not available at the time of adoption of these selenium TMDLs justifies a higher WLA.

- **Phase II of these Selenium TMDLs: Selection of Protective Water Column Concentrations.** During TMDL reconsideration, water column concentrations will be re-evaluated to determine if adjustments to the allocations are necessary to attain the tissue-based numeric targets (and CTR water column-based targets, to the extent they remain in effect) during Phase II of these selenium TMDLs. This evaluation will likely entail running the biodynamic model with new data that have been collected through Phase I. The re-evaluation will include an assessment of additional tissue data collected pursuant to the required monitoring program for these selenium TMDLs to assess progress toward achieving the targets and to reassess the most sensitive endpoint for the selection of appropriate allocations.

  Further, during the implementation of Phase II, a more robust process to periodically reassess the allocations will be implemented by the Regional Board. During this process, allocations will be adjusted, as needed, over time to result in attainment of the tissue-based targets.

  This approach, as well as the rationale for the approach, is the same as that described above for Phase I of these selenium TMDLs.

- **CTR Water Column-Based WLAs and LAs.** Until tissue-based objectives are approved, the CTR chronic criterion for selenium in freshwater must serve as the final numeric target for selenium for the freshwater areas in the Newport Bay watershed. As a result, water column-based allocations based on the CTR are also included in these selenium TMDLs. However, the CTR water column-based allocations will no longer be in effect if and when the CTR freshwater criterion has been replaced by revised objectives (e.g., SSOs).

- **Conditional Mass-Based WLAs.** Recognizing the lack of reasonable and feasible BMPs in the watershed, and that allowing certain discharges to be offset rather than prohibited may provide a greater net environmental benefit, conditional mass-based WLAs are included as an alternative to the concentration-based WLAs. As a requirement of the offset and trading program, discharges allowed pursuant to the offset and trading program cannot result in downstream impacts. Therefore, these conditional mass-based WLAs will result in attainment of the loading capacity and thereby attainment of the selenium TMDLs.

- **Attainment of Tissue-Based Numeric Targets.** While the tissue-based water column WLAs and LAs are expected to result in attainment of the tissue-based numeric targets, bioaccumulation in the various foodwebs in the watershed may be different than what was modeled with the biodynamic model as part of

the Linkage Analysis. Therefore, where tissue-based numeric targets are attained, the corresponding WLAs/LAs will also be deemed to be attained, regardless of the actual measured water column concentration. This approach emphasizes that the water column concentrations are only surrogate measures, while the tissue-based targets provide for the direct assessment and protection of beneficial uses.

- **Direct Incorporation of the Biodynamic Model into the Tissue-Based WLAs and LAs.** The biodynamic model is directly incorporated into the tissue-based WLAs and LAs. As many assumptions and factors were utilized in developing the initial allocations, future data may warrant revising these assumptions and factors, thereby modifying the allocations. By incorporating the model directly into the allocations, it becomes part of the assumptions and requirements of the allocations and can be modified by the Regional Board[23] without necessitating a Basin Plan Amendment. Any such modification to the allocations will be subject to a public review process. However, if future data indicate that a revised modeling approach is warranted (e.g., a bioaccumulation factor (BAF) approach in lieu of the biodynamic model), such a revision would necessitate a Basin Plan Amendment.

- **Assignment of WLAs and LAs at the Subwatershed Scale**. As the selenium TMDLs are based upon a determination of impairment for three subwatersheds (San Diego Creek, Santa Ana-Delhi Channel, and Big Canyon Wash), corresponding WLAs and LAs are also established for each subwatershed. While the San Diego Creek subwatershed contains various areas, the water column concentration selected for the WLAs is based upon the Lower San Diego Creek analysis in the Linkage Analysis. Attainment of the allocations in Lower San Diego Creek is expected to result in reductions in both the San Joaquin Marsh Reserve (UCI Wetlands) and the IRWD Constructed Treatment Wetlands such that the tissue targets will be achieved; therefore, no separate allocations for these areas are established at this time.

- **Compliance Options.** To aid in ensuring permitting consistency with the intent of these selenium TMDLs, the WLAs include compliance options as part of the assumptions and requirements of the WLAs.

Wasteload Allocations

WLAs are assigned to the following point source dischargers: Municipal separate storm sewer system (MS4) Permittees and all other NPDES permitted discharges that discharge groundwater to surface water as part of dewatering, treatment, or similar operations in the watershed (the latter referred to herein as "Other NPDES Permittees").

Final WLAs as a Semi-Annual Arithmetic Mean[1] (for Implementation Purposes)

[23] Per the Regional Board's delegation of authority, the Executive Officer may approve such modifications, subject to a public review and comment process. Upon request, such modifications may be considered directly by the Regional Board.

WLAs	Tissue-based Water Column WLAs [2,3,4,5,6,7,8] (Based upon Biodynamic Model) (µg Se/L)			CTR-based Water Column WLAs [2,8,14,16] (µg Se/L)	Conditional Mass-based WLAs [15,16] (lbs)	
	San Diego Creek Subwatershed [9,12,13,16]	Santa Ana-Delhi Channel [10,12,13,16]	Big Canyon Wash Subwatershed [11,12,13,16]			
MS4 Permitttees	10	11	1	5	Optional. Applies when discharger meets the following conditions:	
Other NPDES Permittees					cipates in approved Offset and Trading Program sets entirety of discharge (concentration x flow), including any specified offset ratio	

(1) Semi-annual arithmetic mean: April 1 through September 30 and October 1 through March 31.
(2) Allocations apply year-round during non-wet weather (i.e. dry) conditions. Wet weather conditions are any day with 0.1 inches of rain or more, as measured at the Tustin-Irvine Ranch Rain Gauge Station, and the following three days (72 hours).
(3) The tissue-based WLAs are based on probable water column concentrations derived from the biodynamic model, as detailed in the Linkage Analysis of these selenium TMDLs. The biodynamic model is directly incorporated herein to these WLAs and is represented by the following equations:

(1) Fish tissue target of 8.1 or 5 µg Se/g dw (piscivorous fish): C_{water} (µg Se/L) = [((($C_{fish\ target}$/ $TTF_{piscivorous\ fish}$)/ $TTF_{invertivorous\ fish}$)/$TTF_{invertebrate}$)/$K_d$]*1000;

(2) Fish tissue target of 8.1 or 5 µg Se/g dw (invertivorous fish): C_{water} (µg Se/L) = [(($C_{fish\ target}$/ $TTF_{invertivorous\ fish}$)/$TTF_{invertebrate}$)/$K_d$]*1000;

(3) Fish tissue target of 8.1 or 5 µg Se/g dw (detritivorous fish): C_{water} (µg Se/L) = [($C_{fish\ target}$/ $TTF_{detritivorous\ fish}$)/$K_d$]*1000;

(4) Bird egg target of 8.0 µg Se/g dw (piscivorous bird): C_{water} (µg Se/L) = [((($C_{bird\ target}$/TTF_{bird})/ $TTF_{invertivorous\ fish}$)/$TTF_{invertebrate}$)/$K_d$]*1000;

(5) Bird egg target of 8.0 µg Se/g dw (invertivorous bird): C_{water} (µg Se/L) = [((($C_{bird\ target}$/TTF_{bird})/$TTF_{invertebrate}$))/K_d]*1000

(4) TTF_{bird} = trophic transfer factor from fish or invertebrates to bird egg, $TTF_{piscivorous\ fish}$ = trophic transfer factor from small fish to predatory fish, $TTF_{invertivorous\ fish}$ = trophic transfer factor from invertebrates to fish, $TTF_{detritivorous\ fish}$ = trophic transfer factor from particulates to fish, $TTF_{invertebrate}$ = trophic transfer factor from particulates to invertebrates, K_d = partitioning coefficient from dissolved selenium in water to particulates.
(5) Initial values for all TTFs and K_ds are specified in the Linkage Analysis of these selenium TMDLs. TTF values may vary by specific water body. In water bodies where predatory fish are not present, the $TTF_{predatory\ fish}$ value should equal 1 to represent that one less step is occurring in the food chain.
(6) During the development of the selenium TMDLs, a range of probable water column concentrations was derived from the tissue-based numeric targets, based on the values assumed for the variables in the equation. The initial WLA values selected are based upon consideration of the most sensitive endpoint in the watershed and existing tissue data. During Phase I of these selenium TMDLs, that endpoint has been identified as fish tissue for the protection of fish (numeric target of 8.1 µg Se/g dw) for the SDC and SADC subwatersheds and as bird egg tissue for the protection of birds (8.0 µg Se/g dw) in BCW.
(7) During the TMDL Reconsideration and during Phase II of these selenium TMDLs, the biodynamic model inputs and resulting probable water column concentrations will be reevaluated and updated as necessary and per the schedule included in **Table 4.c. Se.2**. Subject to review and written comment via a public participation process, if updates are determined to be appropriate, such revised values will then replace the initial values in the biodynamic model equations, resulting in revised allocations. Such revisions can be made via approval by the Executive Officer, per delegated authority by the Regional Board, unless during the public review process a request is made to bring the modification before the Regional Board for consideration.
(8) The final allocations are to be achieved as soon as possible, but no later than 30 years from the effective date of the reconsidered TMDLs, as discussed in the Implementation Plan.
(9) Assessed in the receiving water at San Diego Creek at Campus Drive for Regulated Parties (as defined in the Implementation Plan other than MS4 Permittees) that opt to implement a BMP Strategic Plan consistent with the Implementation Plan.
(10) Assessed in the receiving water at Santa Ana-Delhi Channel at Irvine Avenue for Regulated Parties (as defined in the Implementation Plan other than MS4 Permittees) that opt to implement a BMP Strategic Plan consistent with the Implementation Plan.
(11) Assessed in the receiving water at Big Canyon Wash at Back Bay Drive for Regulated Parties (as defined in the Implementation Plan other than MS4 Permittees) that opt to implement a BMP Strategic Plan consistent with the Implementation Plan.

(12) Assessed at 'end of pipe' for Individual Action Plan point sources that elect not to pursue an offset. Compliance with allocations will be determined pursuant to the compliance options outlined under the heading "Compliance with WLAs". Such compliance options are directly incorporated herein as part of the assumptions and requirements of these WLAs.
(13) Assessment location for the MS4 permittees (urban runoff) is the Costa Mesa Channel. This location was selected as a surrogate urban runoff site because the subwatershed is approximately 1 square mile in area, it has predominantly urban land uses, and it is outside of the areas impacted by rising groundwater.
(14) The CTR-based water column WLAs will no longer apply to these selenium TMDLs if and when revised objectives (e.g., SSOs) have been approved and are in effect and the current CTR chronic criterion for selenium in freshwater is de-promulgated.
(15) The Offset and Trading Program and any applicable offset ratios, described in the Implementation Plan, is incorporated herein to these conditional mass-based WLAs.
(16) Compliance with allocations will be determined pursuant to the compliance options outlined under the heading "Compliance with WLAs". Such compliance options are directly incorporated herein as part of the assumptions and requirements of these WLAs.

Compliance with WLAs

The following compliance options are included to clearly indicate how compliance with the WLAs, incorporated as effluent limitations into the applicable NPDES Permit, will be determined. These compliance options are part of the assumptions and requirements of the WLAs and will be explicitly incorporated in the applicable NPDES Permit to the extent permitted by law.

MS4 Permittees

Compliance with final WLAs (incorporated as effluent limits) may be demonstrated through any one of the following means:

1.For MS4 Permittees who opt to implement a BMP Strategic Plan consistent with requirements specified in the Implementation Plan:

A. Implementation of an approved BMP Strategic Plan (consistent with the approved Plan and schedule) for all areas where the MS4 Permittee is identified as a Regulated Party[24] OR

B. Attainment of tissue-based numeric targets over the specified averaging period, as measured in the Assessment Area[25] [26] OR

C. Attainment of dry weather WLAs over the specified averaging period in the receiving water, as measured at the Assessment Point[27] OR

D. Attainment of conditional mass-based WLAs, consistent with all requirements of the conditional mass-based WLAs[28] OR

E. Attainment of dry weather WLAs over the specified averaging period at the point of discharge OR

[24] As defined in the Implementation Plan.
[25] *Ibid.*
[26] Compliance with final WLAs may not be demonstrated through attainment of tissue-based numeric targets over the specified averaging period, as measured in the Assessment Area, until revised tissue-based objectives (e.g., SSOs) are adopted.
[27] As defined in the Implementation Plan.
[28] Attainment requires that the discharger meets the following conditions: (1) Participates in approved Offset and Trading Program and (2) Offsets entirety of discharge (concentration x flow) at the applicable ratio.

F. Attainment of a water column concentration at the point of discharge which is calculated to attain the water quality objective OR

G. No discharge.

2. Where the BMP Strategic Plan is not implemented consistent with the approved plan and schedule, MS4 Permittees must demonstrate compliance through one option in 1.B through 1.G.

Other NPDES Permittees

Option 1:

Compliance with final WLAs may be demonstrated through ***any one*** of the means identified in Part 1 below:

1. For a Regulated Party who opts to implement a BMP Strategic Plan:

A. Implementation of an approved BMP Strategic Plan (consistent with the approved Plan and schedule) for all areas where the Permittee is identified as a Regulated Party[29] OR

B. Attainment of tissue-based numeric targets over the specified averaging period, as measured in the Assessment Area[30] defined for the applicable Monitoring Plan[31] OR

C. Attainment of dry weather WLAs over the specified averaging period in the receiving water, as measured at the Assessment Point[32] defined for the applicable Monitoring Plan OR

D. Attainment of conditional mass-based WLAs, consistent with all requirements of the conditional mass-based WLAs[33] OR

E. Attainment of dry weather WLAs over the specified averaging period at the point of discharge OR

F. Attainment of a water column concentration at the point of discharge which is calculated to attain the water quality objective OR

G. No discharge.

2. Where the BMP Strategic Plan is not implemented consistent with the approved plan and schedule, a Regulated Party must demonstrate compliance through one option in 1.B through 1.G.

[29] As defined in the Implementation Plan.
[30] *Ibid.*
[31] Compliance with final WLAs may not be demonstrated through attainment of tissue-based numeric targets over the specified averaging period, as measured in the Assessment Area, until revised objectives (e.g., SSOs) are adopted.
[32] As defined in the Implementation Plan.
[33] Attainment requires that the discharger meets the following conditions: (1) Participates in approved Offset and Trading Program and (2) Offsets entirety of discharge (concentration x flow) at the applicable ratio.

Option 2:

For a Regulated Party who opts to implement an Individual Action Plan (IAP), compliance with final WLAs may be demonstrated through any one of the means identified below:

A. Participation in an approved Offset and Trading Program OR

B. Attainment of WLAs over the specified averaging period at the point of discharge OR

C. No discharge.

Load Allocations

LAs are assigned to the following non-point sources of selenium within the Newport Bay watershed: agricultural discharges, open space, and rising groundwater. Atmospheric deposition has not been assigned a separate load allocation since most of the atmospheric deposition is accounted for in allocations for runoff from the various land uses and direct atmospheric deposition on to waterbodies accounts for less than one percent of the total non-point source load.

Final LAs as a Semi-Annual Arithmetic Mean[1] (For Implementation Purposes)

LAs	Tissue-based Water Column LAs [2,3,4,5,6,7,8] (Based upon Biodynamic Model) (µg Se/L)			CTR-based Water Column LAs[2,8,12] (µg Se/L)
	San Diego Creek Subwatershed[9]	Santa Ana-Delhi Channel[10]	Big Canyon Wash Subwatershed[11]	
Agricultural Discharges	10	11	1	5
Open Space				
Rising Groundwater				

(1) For semi-annual arithmetic mean: April 1 through September 30 and October 1 through March 31.
(2) Allocations apply year-round during non-wet weather (i.e. dry) conditions. Wet weather conditions are any day with 0.1 inches of rain or more, as measured at the Tustin-Irvine Ranch Rain Gauge Station, and the following three days (72 hours).
(3) The tissue-based final LAs are based on probable water column concentrations derived from the biodynamic model, as detailed in the Linkage Analysis of these selenium TMDLs. The biodynamic model is directly incorporated herein to these LAs and is represented by the following equations:

(1) Fish tissue target of 8.1 or 5 µg Se/g dw (piscivorous fish): C_{water} (µg Se/L) = [((($C_{fish\ target}$/ $TTF_{piscivorous\ fish}$)/ $TTF_{invertivorous\ fish}$)/$TTF_{invertebrate}$)/$K_d$]*1000;

(2) Fish tissue target of 8.1 or 5 µg Se/g dw (invertivorous fish): C_{water} (µg Se/L) = [(($C_{fish\ target}$/ $TTF_{invertivorous\ fish}$)/$TTF_{invertebrate}$)/$K_d$]*1000;

(3) Fish tissue target of 8.1 or 5 µg Se/g dw (detritivorous fish): C_{water} (µg Se/L) = [($C_{fish\ target}$/ $TTF_{detritivorous\ fish}$)/$K_d$]*1000;

(4) Bird egg target of 8.0 µg Se/g dw (piscivorous bird): C_{water} (µg Se/L) = [((($C_{bird\ target}$/TTF_{bird})/ $TTF_{invertivorous\ fish}$)/$TTF_{invertebrate}$)/$K_d$]*1000;

(5) Bird egg target of 8.0 µg Se/g dw (invertivorous bird): C_{water} (µg Se/L) = [((($C_{bird\ target}$/TTF_{bird})/$TTF_{invertebrate}$))/K_d]*1000

(4) TTF_{bird} = trophic transfer factor from fish or invertebrates to bird egg, $TTF_{piscivorous\ fish}$ = trophic transfer factor from small fish to predatory fish, $TTF_{invertivorous\ fish}$ = trophic transfer factor from invertebrates to fish, $TTF_{detritivorous\ fish}$ = trophic transfer factor from particulates to fish, $TTF_{invertebrate}$ = trophic transfer factor from particulates to invertebrates, K_d = partitioning coefficient from dissolved selenium in water to particulates.
(5) Initial values for all TTFs and K_ds are specified in the Linkage Analysis of these selenium TMDLs. TTF values may vary by specific water body. In water bodies where predatory fish are not present, the $TTF_{predatory\ fish}$ value should equal 1 to represent that one less step is occurring in the food chain.

(6) During the development of the proposed selenium TMDLs, a range of probable water column concentrations was derived from the tissue-based numeric targets, based on the values assumed for the variables in the equation. The initial LA values selected are based upon consideration of the most sensitive endpoint in the watershed and existing tissue data. During Phase I of these proposed selenium TMDLs, that endpoint has been identified as fish tissue for the protection of fish (numeric target of 8.1 µg Se/g dw) for the San Diego Creek and Santa Ana-Delhi Channel subwatersheds, and bird egg tissue for the protection of birds (numeric target of 8.0 µg Se/g dw) for the Big Canyon Wash subwatershed.
(7) During the TMDL Reconsideration and during Phase II of these selenium TMDLs, the biodynamic model inputs and resulting probable water column concentrations will be reevaluated and updated as necessary and per the schedule included in **Table 4.c. Se.2**. Subject to review and written comment via a public participation process, if updates are determined to be appropriate, such revised values will then replace the initial values in the biodynamic model equations, resulting in revised allocations. Such revisions can be made via approval by the Executive Officer, per delegated authority by the Regional Board, unless during the public review process a request is made to bring the modification before the Regional Board for consideration.
(8) The final allocations are to be achieved as soon as possible, but no later than 30 years from the effective date of the reconsidered TMDLs, as discussed in the Implementation Plan.
(9) Assessed in the receiving water at San Diego Creek at Campus.
(10) Assessed in the receiving water at Santa Ana-Delhi Channel at Irvine Ave.
(11) Assessed in the receiving water at Big Canyon Wash at Back Bay Drive.
(12) The CTR-based water column LAs will no longer apply to these selenium TMDLs if and when revised objectives (e.g., SSOs) have been approved and are in effect and the current CTR chronic criterion for selenium in freshwater is de-promulgated.

Margin of Safety

A margin of safety (MOS) for a TMDL addresses uncertainties associated with the analyses that may result in targets not being achieved. The MOS may be explicit, implicit, or both. For these selenium TMDLs, an implicit MOS is used.

There remains scientific and regulatory agency disagreement concerning the adequacy of the CTR criteria for the protection of aquatic life and aquatic-dependent wildlife, principally because selenium is bioaccumulated primarily via diet, not water. For the selenium TMDLs, the tissue-based numeric targets were recommended by USEPA[34] and USFWS staff[35] to ensure protection of the bird and fish species that inhabit or forage in the Newport Bay watershed. The selenium tissue concentrations recommended by USFWS are considered to be either no effect concentration for birds or no to very low effect concentrations for fish and for fish as a dietary concentration for birds, and as such are conservative objectives that provide an implicit MOS for the selenium TMDLs. The selenium tissue concentration for the protection of fish (as a whole body tissue concentration of 8.1 µg Se/g dw) that has been proposed by USEPA as one element of their draft aquatic life criterion for selenium in freshwater (2014) is a low effect (EC10) concentration that is considered protective of 90% of the freshwater fish population present in the freshwater areas in the Newport Bay watershed. By selecting numeric targets that are tissue-based and designed to be protective of aquatic life and aquatic-dependent wildlife, these selenium TMDLs are expected to be more protective of the beneficial uses in the watershed than TMDLs based solely on the current CTR criteria, which may be over- or under-protective of those uses.

Implementation Plan

[34] Recommendation from the *External Peer Review Draft Aquatic Life Ambient Water Quality Criterion for Selenium – Freshwater* 2014 (USEPA, 2014) for fish tissue target for the protection of fish.
[35] Recommendation for fish tissue target as a dietary item for birds and the bird egg tissue target (J. Skorupa, USFWS, electronic communication, October 20, 2008).

TMDL implementation will be carried out in the three areas by the following Regulated Parties[36]:

San Diego Creek Subwatershed

- MS4 Permittees:
    - County of Orange
    - Orange County Flood Control District
    - City of Irvine
    - City of Laguna Hills
    - City of Laguna Woods
    - City of Lake Forest
    - City of Newport Beach
    - City of Orange
    - City of Tustin
    - City of Santa Ana
- Other NPDES Permittees
    - General Groundwater Cleanup Permittees
    - Individual Groundwater Cleanup Permittees
    - General Groundwater Dewatering Permittees
    - Individual Groundwater Dewatering Permittees
- IRWD (owner/operator of the IRWD Constructed Treatment Wetlands)[37]

[36] Regulated Parties include MS4 Permittees, Other NPDES Permittees, and the owner/operators of the IRWD Constructed Treatment Wetlands, the San Joaquin Marsh Reserve (UCI Wetlands), and the Big Canyon Nature Preserve. Certain Regulated Parties may be subject to multiple, separate NPDES permits and; therefore, may have implementation responsibilities under more than one category (e.g., City of Irvine is an MS4 Permittee and also is regulated separately by an individual dewatering NPDES permit).

[37] IRWD is not assigned a WLA or LA at this time as owner/operator of the IRWD Constructed Treatment Wetlands (it is, however, separately a Groundwater Dewatering Permittee). IRWD is required to participate in the implementation of these proposed TMDLs by coordinating with the Regulated Parties in the development of the BMP Strategic Plan and Regional Monitoring Program for San Diego Creek. As part of the adaptive management process, the BMP Strategic Plan will assess the need to manage and reduce selenium bioaccumulation in the IRWD Constructed Treatment Wetlands, if reductions in San Diego Creek are not in and of themselves sufficient for the TMDL numeric targets to be met in the wetlands. The need to implement additional measures will be assessed during the TMDL reconsideration process and/or as a part of Phase II.

- UCI (owner/operator of the San Joaquin Marsh Reserve (UCI Wetlands))[38]

Santa Ana-Delhi Channel

- MS4 Permittees:
    - County of Orange
    - Orange County Flood Control District
    - City of Costa Mesa
    - City of Santa Ana
    - City of Newport Beach
- Other NPDES Permittees
    - General Groundwater Cleanup Permittees
    - Individual Groundwater Cleanup Permittees
    - General Groundwater Dewatering Permittees
    - Individual Groundwater Dewatering Permittees

Big Canyon Wash Subwatershed

- MS4 Permittees:
    - City of Newport Beach
- Other NPDES Permittees
    - General Groundwater Cleanup Permittees
    - Individual Groundwater Cleanup Permittees
    - General Groundwater Dewatering Permittees
    - Individual Groundwater Dewatering Permittees
- California Department of Fish and Wildlife (DFW) (owner/operator of a mitigation area located at the downstream end of the Big Canyon Nature Park). DFW's mitigation

[38] UCI is not assigned a WLA or LA at this time. However, as the owner/operator of the San Joaquin Marsh Reserve (UCI Wetlands), UCI is required to participate in the implementation of these proposed TMDLs by coordinating with the Regulated Parties in the development of the BMP Strategic Plan and Regional Monitoring Program for San Diego Creek. As part of the adaptive management process, the BMP Strategic Plan will assess the need to manage and reduce selenium bioaccumulation in the San Joaquin Marsh Reserve (UCI Wetlands), if reductions in San Diego Creek or the IRWD Constructed Treatment Wetlands are not in and of themselves sufficient for the TMDL numeric targets to be met in the reserve. The need to implement additional measures will be assessed during the TMDL reconsideration process and/or as a part of Phase II.

area, which includes a pond and riparian habitat, lies within the boundaries of the Upper Newport Bay Ecological Reserve.[39]

These selenium TMDLs are being established and implemented as phased TMDLs, consistent with USEPA guidance and based upon a three-part structure:

- Phase I – Completion as soon as possible, but no later than 6 years from the effective date of the selenium TMDLs[40].
- TMDL Reconsideration – Completion as soon as possible, but no later than 2 years after Phase I. Reconsideration of the selenium TMDLs will be no later than 8 years from the effective date of the selenium TMDLs.
- Phase II – Completion as soon as possible, but no later than 30 years from the effective date of the reconsidered selenium TMDLs[41]. If reconsidered selenium TMDLs are not in effect 8 years after the effective date of the original selenium TMDLs, Phase II actions will commence at this time. In this circumstance, changes in the reconsidered selenium TMDLs will be incorporated into Phase II at the time they become effective.

In addition, each phase of TMDL implementation will be guided by adaptive management. This adaptive management approach is a required element of the BMP Strategic Plans described below.

Phase I: LA Implementation

For the implementation of the LAs, these selenium TMDLs will rely upon the State of California *Nonpoint Source Program Strategy and Implementation Plan* (SWRCB, 2000) and the *Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program* (SWRCB, 2004c). It is anticipated that the implementation measures for the WLAs will not only address the controllable sources of selenium (e.g., groundwater dewatering and clean-up discharges), but will also result in a substantial reduction in the NPS load as well. Therefore, the need for an NPS strategy and the development of the strategy will be part of the TMDL Reconsideration and will therefore be implemented during Phase II.

Phase I: WLA Implementation

The Phase I implementation actions required of MS4 Permittees includes the development and implementation of the following plans/programs for each subwatershed where the MS4 Permittee is identified as a Regulated Party:

[39] DFW is not assigned a WLA or LA at this time. However, as the owner/operator of the restoration areas within BCNP, DFW is required to participate in the implementation of these proposed TMDLs by coordinating with the Regulated Parties in the development of the BMP Strategic Plan and Regional Monitoring Program for Big Canyon Wash. The BMP Strategic Plan for Big Canyon Wash must include a task to develop a contingency strategy to manage and reduce selenium bioaccumulation in the wetlands in the BCNP, if reductions in selenium upstream of the wetlands are not in and of themselves sufficient for the TMDL numeric targets to be met in the wetlands. The need to develop the contingency strategy will be assessed during the TMDL reconsideration process and/or as a part of Phase II.

[40] Each individual action will be scheduled as a specific number of years/months from the effective date of the proposed selenium TMDL/reconsidered selenium TMDL (as applicable).

[41] *Ibid.*

- BMP Strategic Plan
- Offset/Trading Program (participation in the program by individual Regulated Parties is optional)
- Monitoring Program
- Reporting

The Phase I implementation actions required of Other NPDES Permittees includes the development and implementation of the following plans/programs for each subwatershed where the Permittee is identified in these TMDLs as a Regulated Party:

- BMP Strategic Plan OR Individual Action Plan as described below
- Participation in the Offset and Trading Program (participation in the program by individual Regulated Parties is optional)
- Participation in Regional Monitoring Program OR development of monitoring program within Individual Action Plan
- Reporting

Other NPDES Permittees who elect not to participate in a BMP Strategic Plan(s) must develop and implement an Individual Action Plan that identifies an acceptable means to attain the WLAs. MS4 Permittees must participate in the BMP Strategic Plans while Other NPDES Permittees have the option of participating in a BMP Strategic Plan or implementing an Individual Action Plan. This alternative approach is provided for Other NPDES Permittees recognizing that groundwater dewatering discharges may be short-term in nature and a tailored, individual approach may be more appropriate. Requirements for Individual Action Plans are detailed below.

BMP Strategic Plan Requirements

BMP Strategic Plans must be developed for each area (San Diego Creek, Santa Ana-Delhi Channel, and Big Canyon Wash). The plans can be developed individually for each area or combined to address multiple areas (resulting in a minimum of one (1) and a maximum of three (3) plans). Each BMP Strategic Plan must be submitted to the Executive Officer for approval by the date specified in **Table 4.c.Se.2**, and must be implemented upon approval. Each BMP Strategic Plan must be circulated for public review and comment for a period of no less than 30 days, and the Regional Board shall hold a public hearing prior to considering approval of each plan. If no significant public comments are received, then the Executive Officer may approve the plan. As identified in the TMDLs and Allocations section, and as further described below, implementation of an approved BMP Strategic Plan, consistent with the actions and schedules identified in the Plan, shall provide the basis for effluent limits expressed as BMPs or BMP-based compliance options in the relevant NPDES permit.

To be considered for approval by the Executive Officer, each BMP Strategic Plan must include the following:

- **Baseline and Source Control Activities** – Identification of source control activities that prevent or minimize new or existing discharges of selenium (such

as volume reduction BMPs). For example, volume reduction BMP fact sheets were developed by the NSMP in 2005[42] and five potential volume reduction BMPs were identified: (1) discharge to land; (2) discharge to sewer; (3) evaporation ponds; (4) off-site transportation; and (5) reinjection. These volume reduction BMPs do not limit the type of source control BMPs that can be identified in the BMP Strategic Plan(s), but rather serve as examples.

- **Selenium Reduction Projects** – Identification of projects that result in reductions of selenium, including the characteristics, timeframe, and estimated selenium removal for each project.

- **BMP Effectiveness Monitoring** – Identification of the monitoring needed to assess the effectiveness of the BMPs implemented through the BMP Strategic Plan. To ensure an integrated and cohesive approach to monitoring, this monitoring will be incorporated as part of the Regional Monitoring Program (described below).

- **BMP/Technology Evaluation** – Identification of the process and schedule for periodic assessment of selenium BMPs/treatment technologies. This review may include evaluation of journal articles, online references, technical reports, and communication with researchers and vendors to evaluate the most up-to-date information on selenium treatment. The following information must be identified for each potential BMP/treatment technology evaluated:
  - Selenium removal capability and efficiency, and to the extent feasible, removal capability for other pollutants (e.g., nitrogen);
  - Physical requirements and capabilities of the technology, such as operating flows, land and energy requirements, pre-treatment requirements, modular capabilities, portability of the treatment, lifespan of the treatment media, start-up and shut-down considerations, and operation and maintenance requirements;
  - Potential discharge concerns, including any issues with selenium speciation, selenium concentration, nuisance factors, process waste streams, solid waste disposal, associated permitting requirements and costs; and,
  - Capital and operations and maintenance costs.

- **Adaptive Management** – Identification of the process and schedule for how new information (e.g., effectiveness of source control activities and selenium reduction projects, identification of new BMPs/treatment technologies, monitoring data, effectiveness of BMPs/treatment technologies upstream of wetlands to achieve reductions within wetlands) will be evaluated and how the plan may be modified based upon such information. Given the timeframe for

[42] Document is available to download on the NSMP website at the following web address: http://www.ocnsmp.com/pdf/Volume%20Reducing%20BMPs_REVISION%2011Aug05.pdf

Phase I (a maximum of 6 years from the TMDL effective date), it is anticipated that only minor modifications to the Plans will occur in Phase I and that a full re-evaluation of the Plans will occur during the TMDL Reconsideration process. A more robust adaptive management process will be required during Phase II implementation (see below).

- **Goals** – Clear, specific, quantifiable and measurable goals for the reduction of selenium must be identified. The goal(s) could take the form of a mass-based reduction, reduction in total selenium concentration, reduction in selenite concentrations, etc. The BMP Strategic Plan must clearly identify how achieving the goals will result in progress toward attaining the WLAs as soon as possible (recognizing that in Phase I of these selenium TMDLs, attainment of the WLAs is not the required or intended objective; final WLAs must be attained as soon as possible but no later than by the end of Phase II). The cumulative actions identified in the plans must be designed to meet the identified goals[43].

- **Schedule** – For each element included in the BMP Strategic Plan, the anticipated dates must be identified for the implementation of each action.

Many Regulated Parties have already invested significant effort in the development of BMP Strategic Plans, prior to the adoption of these selenium TMDLs, as part of compliance with their existing NPDES permits. A BMP Strategic Plan (RBF, 2013) for the Santa Ana-Delhi Channel and San Diego Creek subwatershed was developed and received approval from the Executive Officer in December 2013. This BMP Strategic Plan was submitted to meet the requirements of Time Schedule Order (TSO) R8-2009-0069 and Order R8-2009-0070 (i.e., the Irvine TSO). The TSO BMP Strategic Plan identifies discrete actions and includes an implementation schedule for those actions. The actions identified will help address the controllable sources of selenium (e.g., groundwater dewatering discharges), and are also expected to result in reductions in the NPS load as well. It is therefore anticipated that the

[43] As part of the development of these TMDLs, the identification of step-wise, interim selenium reduction goals during each recommended phase was carefully considered. The selenium reductions that are estimated to be achieved as the result of the implementation of proposed Phase I projects have been identified (some of these projects are already being implemented - see discussion of TSO BMP Strategic Plan, below). These estimated reductions are reflected in the TSO BMP Strategic Plan that will form the basis for the Phase I BMP Strategic Plans for the San Diego Creek subwatershed and the Santa Ana-Delhi Channel. However, since the specific nature and location of, and need for, projects to be implemented in Phase II are unknown at this time, and since these factors must be known to provide defensible estimates of the selenium reductions that could be achieved, it is not practical to specify additional interim selenium reductions in these TMDLs. Any such interim goals would be purely arbitrary. The establishment of interim goals will be considered as part of the TMDL Reconsideration consideration process, based on the results of Phase I, including monitoring to assess the efficacy of implemented BMPs and the effects of those BMPs on the receiving waters and biota. As part of the TMDL Reconsideration process, a revised implementation plan will be developed, with specific determination of where and what types of projects are necessary and feasible to achieve remaining selenium reductions.

BMP Strategic Plan submitted for approval as part of the requirements for Phase I of these selenium TMDLs[44] will be consistent with the TSO BMP Strategic Plan.

Individual Action Plan Requirements

Other NPDES Permittees may elect to identify and implement an alternative, acceptable means to comply with the final WLAs through the development and implementation of an Individual Action Plan. As part of the Notice of Intent (NOI), the Individual Action Plan must be submitted to the Executive Officer for approval by the date specified in **Table 4.c.Se.2,** and implemented upon approval. Each Individual Action Plan must be circulated for public review and comment for a period of no less than 30 days, and the Regional Board shall hold a public hearing prior to considering approval of each plan. If no significant public comments are received, then the Executive Officer may approve the plan. Discharges cannot commence until the Individual Action Plan is approved.

To be considered for approval by the Executive Officer, each Individual Action Plan must include the following:

- **Volume Reduction BMPs** – Identification of volume reduction BMPs that prevent or minimize discharges of selenium prior to discharge. Volume reduction BMP fact sheets were developed by the NSMP in 2005 and five potential volume reduction BMPs were identified: (1) discharge to land, (2) discharge to sewer, (3) evaporation ponds, (4) off-site transportation, and (5) reinjection. These Volume Reduction BMPs do not limit the type of volume reduction BMPs that can be identified in an Individual Action Plan, but rather serve as an example;
- **Method of Attaining the final WLAs** – Identification of how the Individual Action Plan will result in attainment of the final WLAs. Methods of attainment may include:
    - Participation in an approved Offset and Trading Program, such that the discharge is offset consistent with all requirements of the Offset and Trading Program and restrictions pertaining to downstream impacts; OR
    - Implementation of BMPs to attain the final WLAs at the point of discharge[45]; OR
    - No discharge (e.g., sewer the discharge).

[44] The BMP Strategic Plan approved in December 2013 is in response to TSOs for groundwater dewatering permits and therefore does not cover all Regulated Parties subject to this TMDL. Therefore, the BMP Strategic Plan must be resubmitted for approval to address the requirements for all Regulated Parties and the requirements detailed in these TMDLs. Such modifications may entail including and specifying additional parties to the plan (e.g., MS4 Permittees), specifically identifying interim goals, and ensuring the schedule is consistent with **Table 4.c Se.2**. These modifications are anticipated to be minor. It is not the intention to require an overhaul of the TSO BMP Strategic Plans as the timeframe for Phase I of these TMDLs is based upon the actions already identified and approved as part of the TSO BMP Strategic Plans.

[45] Attainment of the final WLAs at the point of discharge must be demonstrated in the NOI and compliance would need to be immediate. It may be feasible that the Permittee may want to utilize the Offset and Trading Program until BMPs are implemented to meet the final WLAs at the point of discharge.

- **Schedule** – Identification of the timeframe of the discharge and the discrete dates for implementation of each action identified as part of the Individual Action Plan.

    - **Monitoring Program** – Identification of how the Individual Action Plan will demonstrate attainment of the final WLAs, per the method identified above, through monitoring. Where an Individual Action Plan opts to attain the final WLAs through an approved Offset and Trading Program, at a minimum, monitoring must be consistent with the monitoring requirements specified in the Monitoring section below. Where an Individual Action Plan opts to attain the final WLAs at the point of discharge, at a minimum (until it has been shown that the discharge meets the final WLAs), the monitoring must include water column monitoring for total selenium and flow (end of pipe). The monitoring program requirement can be satisfied individually (e.g., a separate and individual monitoring plan) or can be incorporated into the Regional Monitoring Program specified in the Monitoring section below. Where an Individual Action Plan opts to attain the final WLAs by sewering the discharge, monitoring must include flow measurements (flow that is being sewered)[46] and document that no discharge to surface waters is occurring.

- **Reporting** – Identification of the frequency of reports provided to the Regional Board. The frequency should take into account the underlying permit requirements. Contents of the reports are specified in the section on Reporting**.**

Offset and Trading Program

Since, at the present time, there is no readily available, conventional selenium treatment technology that can be implemented in a reasonably practicable manner given the watershed-scale of the selenium problem, its diffuse origin (largely rising groundwater), and the limited land available for facility placement, it is not reasonable to prohibit such discharges where doing so would seriously jeopardize public safety, impede important groundwater remediation projects, or adversely affect the beneficial uses of receiving waters. In some places, point source discharges from groundwater dewatering facilities help support aquatic habitat that might otherwise be lost if the discharge were prohibited. To prevent these adverse effects, while continuing to protect water quality, it is appropriate and in the best interests of overall water quality to authorize the use of offsets and trading as an alternate method for demonstrating compliance[47].

An Offset and Trading Program will allow Regulated Parties to demonstrate compliance with the applicable effluent limitation by reducing selenium loads from NPSs (primarily rising groundwater) in lieu of treating or ceasing their own point-source discharge(s).

[46] The sewering agency will require certain monitoring to be conducted of water that enters the sewer system. This monitoring data may be utilized to fulfill, fully or in part, monitoring requirements for an Individual Action Plan.

[47] Investigation and evaluation of potential selenium treatment technologies is a part of the adaptive management approach for implementation of these TMDLs. New, cost-effective, and practicable treatment technologies may be identified in the future. Consistent with this, a Regulated Party's eligibility to participate in the Offset and Trading Program is contingent, in part, on the demonstration that there is no reasonably feasible or practicable conventional treatment technology available that can achieve compliance with the applicable WQO for selenium at the point of discharge.

Implementation of this Offset and Trading Program allows available resources to be leveraged to address both point and non-point sources (the most significant and difficult to control) of selenium. The Offset and Trading Program will be managed so as to ensure that the net effect on water quality and beneficial uses of continued point source discharges mitigated by offsets is better than would be expected if the regulated discharge were prohibited altogether.

If Regulated Parties opt to develop an Offset and Trading Program, it must be submitted to the Executive Officer for approval by the date specified in **Table 4.c.Se.2**, and must be implemented upon approval. The Offset and Trading Program must include a plan and a schedule. The Offset and Trading Program plan and schedule shall be circulated for public review and comment for a period of no less than 30 days, and the Regional Board shall hold a public hearing prior to considering approval of the plan. If no significant public comments are received, then the Executive Officer may approve the plan. This program will cover the entire Newport Bay watershed, though individual trades are limited by subwatershed as described below.

To be considered for approval by the Executive Officer, the Offset and Trading Program must include or conform with all elements/definitions described below:

Offset and Trading Program Elements

- **Program Administration:** The Offset and Trading Program must develop the process for, and identify the party responsible for, managing the program (including the Offset Accounting System described below).

- **Trading Baseline:** A minimum level of effort or level of implementation that must be achieved before a project is eligible to generate credits. For purpose of calculating offset credits, the baseline level is equivalent to the mass-based WLA[48].

- **Credit Generation:** Selenium "credits" (offset credits) are created under either of the two following conditions:

  - A diversion or treatment project reduces selenium loads (expressed as mass) below the baseline level.

  - A Regulated Party reduces the average concentration of selenium in its point source discharge to below 5 µg/L, or below the applicable water column concentration if the CTR water quality objective is revised in the future. The mass-based credit is calculated by multiplying the discharge flow volume times the difference in concentration (i.e., the effluent concentration minus 5 µg/L or the applicable water column concentration).

[48] The mass-based WLAs are applicable on an individual Permittee basis. For example, if Permittee A discharges 5 lbs of selenium but implements a diversion project that removes 25 lbs of selenium, then 20 lbs of selenium credits are generated.

- **Offset Ratios:** Groundwater cleanup projects[49] must offset their discharge by a 1:1 ratio (e.g., acquire one pound [or fraction thereof] of offset credits for each pound [or fraction thereof] of selenium discharged [i.e., a 1:1 ratio]). All other permitted point-source discharges must offset their discharge by a 2:1 ratio (e.g., acquire two pounds of offset credits for each pound of selenium discharged). The 2:1 ratio serves as a "retirement ratio" that is applied to the estimated credits to set aside a portion of credits for net environmental benefit (e.g., ensuring that all projects with a 2:1 offset ratio that generate credits result in a reduction of NPSs).

- **Prior Approval:** Any project for which offset credits are proposed to be generated by reducing existing selenium inputs to surface waters from one or more NPSs, must first be approved by the Executive Officer.[50] As an example, this approval could be modeled on the Los Angeles Regional Water Quality Control Board's and/or State Water Resources Control Board's approach for approval of full capture devices for trash, whereby the Regional Board would create an approved list of BMPs to avoid approving each individual project. As the specifics must be detailed in the Offset and Trading Program, this approach is purely provided as an example for consideration.

- **Offset Accounting:** The Offset and Trading program must develop and establish a selenium accounting system, consistent with the monitoring requirements identified below, which accurately characterizes any load reductions claimed as offset credits and discharges being offset by those credits. The Offset and Accounting System must identify how each project integrates with other selenium reduction efforts in the region including the relevant BMP Strategic Plan.

- **Types of Trades:** Offsets and trades can occur between point source – point source and point source – non-point source.

- **Timing:** Offset credits must be generated before they can be used to offset permitted-point source discharges. Offset credits automatically expire 12 months after they are created regardless of whether they have been used as an offset or not.

- **Trading Area:** Offset credits may only be used as offsets in the same subwatershed (i.e., San Diego Creek, Santa Ana-Delhi Channel, or Big Canyon Wash) in which they were created.

- **Monitoring:** Regulated Parties that rely on offsets and trading to demonstrate compliance will also be required to participate in a monitoring program, as described in the section on Monitoring. This program shall be designed to

[49] Groundwater cleanup projects are those projects regulated under the groundwater remediation permits.
[50] Approval is needed for the initial project, not for individual trades of the offset credits. The trades of the offset credits will be documented in the offset accounting system.

demonstrate the effectiveness of the offset and trading program in improving water quality. The program shall include, but may not be limited to, water quality monitoring and biological assessments downstream of the point-source discharge. This monitoring obligation may be satisfied by each discharger individually or by cooperating with other dischargers where doing so would be more cost-effective and efficient. The latter option is intended to increase the opportunities for smaller dischargers to participate in the program.

Eligibility Requirements for the Offset and Trading Program

Regulated Parties will be eligible to participate in the Offset and Trading Program, designed to achieve compliance with the applicable NPDES permit limitation by relying on credits generated from an offset and trading project approved by the Executive Officer, to offset selenium loads in their point-source discharge, provided they demonstrate the following, as determined by the Executive Officer:

(a) That there is no reasonably feasible or practicable conventional treatment technology available that can achieve compliance with the applicable WQO for selenium at the point of discharge.

(b) That it is not feasible or practicable to eliminate[51] the discharge, that doing so would pose unreasonable risks to human health, public safety, or the natural environment, or that prohibiting the discharge would result in unreasonable economic hardship on the surrounding community, or result in greater selenium loading to the Newport Bay watershed than would occur in the absence of the offset project.

(c) That the point source discharge that relies on offset credits to achieve compliance with the applicable WLA is not expected to unreasonably adversely affect beneficial uses of receiving waters downstream of the discharge outfall.

The Regional Board will require point-source dischargers to re-confirm their eligibility for continued participation in the offset and trading program and to reassess the range of conventional treatment technologies each time a permit is renewed. The Regional Board encourages coordination on treatment technologies in order to minimize redundant efforts and share the total cost as described in the BMP Strategic Plans.

Demonstrating Compliance with the Waste Load Allocation

- **Permit Authorization:** An offset credit may not be relied on to demonstrate effective compliance with an effluent limitation unless authorized by a permit (including, but not limited to, the existing Regional Board orders and permits regulating discharges in the Newport Bay Watershed) and unless it has met the credit generation and prior approval requirements.

[51] Individual Action Plan's must include Volume Reduction BMPs and, even if the discharge is reduced, it may be necessary and in the best interests of overall water quality for the remaining discharge to utilize the Offset and Trading Program as an alternate method for demonstrating compliance.

- **Use of Credits:** Sufficient qualified offset credits must be acquired to offset the remaining selenium load (measured as mass), including any applicable offset ratios, in the point-source discharge.

- **Compliance Assessment:** Satisfactory implementation of the Offset and Trading Program, in accordance with the terms and conditions specified by the Executive Officer, will constitute full compliance with the applicable effluent limitation specified to implement the relevant WLA. The Regional Board retains discretion to revise the specific offset requirements to maintain consistency with the TMDLs[52]. The Regional Board also retains discretion to reauthorize or disallow continued reliance on pollutant offsets and trading projects to demonstrate compliance with the selenium effluent limitation implementing the WLA each time a discharge permit is renewed. Such a determination will include an assessment of the program's continued effectiveness in achieving greater water quality improvements than if the program were disallowed.

- **Non-Compliance and Enforcement:** For Regulated Parties that rely on the Offset and Trading Program to demonstrate compliance with an NPDES effluent limitation, failure to comply with the terms and conditions specified by the Executive Officer at the time the Program is approved will be a violation of the discharge permit. Notwithstanding any other enforcement option already available, the Regional Board may also elect to terminate eligibility to participate in the Offset and Trading Program, require a higher offset ratio from the non-compliant discharger, or impose additional terms and conditions to ensure full compliance by the non-compliant discharger.

Development of Site-Specific Objectives

It is the intent of the Regional Board to develop SSOs for selenium for the Newport Bay watershed, with a targeted date of within one to two years [53]of the effective date of these TMDLs.

Regional Board staff will work with all relevant parties to ensure that the process is implemented as soon as possible. However, this process is time intensive and will take several years to complete even under the most expeditious of circumstances. Therefore, the time to complete this process, as well as the time needed for implementation and assessment of BMPs, forms, in part, the basis for the timeframe for Phase I of these selenium TMDLs.

TMDL Reconsideration

[52] The specific offset requirements must be consistent with the TMDL. Any future revisions to the offset ratios, achieved through a Basin Plan Amendment, would be reflected in permit requirements.
[53] The timeframe of one to two years refers to the time needed to develop the SSOs and have them considered for adoption by the Regional Board. The timeframe for the SSOs to become effective includes many other regulatory and procedural steps.

The TMDL Reconsideration is a core component of the overall structure and approach for these selenium TMDLs and will occur after the completion of Phase I and prior to the initiation of Phase II.

The TMDL Reconsideration allows these selenium TMDLs to be implemented while there are pending revisions at the state and local levels to the applicable selenium objectives. It is anticipated that the revised objectives will become effective during Phase I of these selenium TMDLs. After the revised objectives are established, the actions needed to attain those objectives can be identified. This process will occur as part of the TMDL Reconsideration and the requirements will be specified as part of the Phase II implementation of these selenium TMDLs.

In addition, the TMDL Reconsideration will also review the overall effectiveness and practicality of BMPs implemented during Phase I and the associated data from the Regional Monitoring Program in developing the appropriate strategies and requirements for Phase II. This approach is consistent with the acknowledged difficulty of controlling selenium discharges in the Newport Bay watershed and the need for further investigation and adaptive management of appropriate and effective control strategies.

Effective BMPs implemented as part of Phase I implementation will continue to be operated during the TMDL Reconsideration. Adaptive management of BMPs and consideration of and planning for new BMPs that are considered likely to be required to attain the revised TMDLs shall also proceed during the TMDL Reconsideration period in order to assure that water quality standards are attained as soon as possible.

The entirety of these selenium TMDLs and supporting documentation may be modified during the TMDL Reconsideration, but it is anticipated that at a minimum, the following elements will be revised:

- Problem Statement
- Numeric Targets
- Linkage Analysis
- TMDLs and Allocations
- Implementation Plan

Implementation of the selenium TMDLs is expected to be an ongoing and dynamic process and may lead to further modifications during Phase II. This includes detailed evaluation of and possible modification of the schedule needed to assure final attainment of the TMDLs. The Regional Board will reevaluate the selenium TMDLs consistent with the implementation schedule in **Table 4.c.Se.2**.

Phase II: LAs Implementation

Phase II will focus on actions designed to attain the final WLAs and LAs as expeditiously as possible. Phase II actions will be determined based on the results of Phase I implementation, the requisite monitoring program, and the Reconsidered TMDL and may include revisions to key TMDL elements like the final WLAs and LAs. A schedule for the actions that may be considered for implementation during Phase II has been developed. Given the revisions to

the selenium WQOs that have taken place at the federal level, are currently underway at the state level,, and the proposed SSOs at that will be initiated at the local level, the actions and schedule are preliminary and will be reevaluated for appropriateness during TMDL Reconsideration and any future TMDL reopener. This approach is consistent with the concept of a Phased TMDL as defined in USEPA guidance. The implementation schedule for these TMDLs is limited to **Table 4.c.Se.2**.

During Phase II, these selenium TMDLs will rely upon the State of California *Nonpoint Source Program Strategy and Implementation Plan* (SWRCB, 2000) and the *Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program* (SWRCB, 2004c). As it is anticipated that the implementation measures described in Phase I: WLA Implementation will also address a portion of the NPS rising groundwater, the need for a NPS strategy and the development of the strategy will be part of the TMDL Reconsideration. The strategy that is developed will be implemented during Phase II.

Phase II: WLAs Implementation

Specific requirements for Phase II will be identified through the TMDL Reconsideration process. However, it is anticipated that the implementation approach and elements identified for Phase I will be the basis for Phase II. These elements include the following:

MS4 Permittees:

- BMP Strategic Plan
- Offset and Trading Program (participation in the program by individual Regulated Parties is optional)
- Monitoring Program
- Reporting

Other NPDES Permittees:

- BMP Strategic Plan OR Individual Action Plan
- Offset and Trading Program (participation in the program by individual Regulated Parties is optional)
- Monitoring Program
- Reporting

A key distinction for Phase II implementation is the timeframe, compared to the timeframe identified for Phase I. As the objective for Phase II will be to achieve the final WLAs and LAs and assure that water quality standards are achieved, a significantly longer timeframe is expected to be needed.

Controlling selenium discharges to surface waters poses multiple challenges in part because the most significant source is rising groundwater that is diffuse in origin. Lining of surface water channels to prevent infiltration of rising groundwater could compromise the structural integrity of the channels and their flood control functions. Diversion of this rising groundwater in all surface waters, even if technically feasible, would dewater the surface waters and

thereby impair wildlife-related and other beneficial uses. The Offset and Trading Program that is expected to be initiated in Phase I of these selenium TMDLs provides one mechanism to address this source. Other mechanisms may be needed, and adequate but reasonable time will be needed to identify, design, and implement them. These selenium TMDLs specify a schedule of *as soon as possible but no later than* 30 years for Phase II. The propriety of this schedule will be carefully considered, and modified if appropriate, during the TMDL Reconsideration.

During Phase II implementation, a more robust adaptive management process will be incorporated, given the now established 30-year implementation timeframe, including the following:

- **Modifications to the BMP Strategic Plans** – Whereas only minor modifications are anticipated during Phase I implementation, major revisions to the plans may be warranted during Phase II, based upon the information developed through the adaptive management process. Such revisions may entail identifying additional or alternative BMPs necessary to achieve the final WLAs/LAs. Regulated Parties will be required to revise and update the BMP Strategic Plans every five years (as needed), unless an alternative schedule is identified, as directed by the Regional Board's Executive Officer.
    - **Evaluation of the Final WLAs** – A key component of these proposed selenium TMDLs is identifying water column concentrations that may be necessary to achieve the tissue-based numeric targets. Therefore, it will be necessary to periodically re-evaluate the water column concentrations derived from the biodynamic model (or alternative model, if adopted for Phase II based on special studies) to ensure that tissue-based targets will be attained. Regulated Parties implementing BMP Strategic Plans will be required to update the applicable model utilized in the Linkage Analysis with new data and submit a report with recommendations to the Regional Board's Executive Officer for review and approval[54]. The frequency of such evaluations shall be consistent with the schedule identified in **Table 4.c.Se.2**.

Incorporation of the TMDLs into NPDES Permits

TMDLs are not self-implementing and must therefore be incorporated into the appropriate regulatory mechanisms to be enforceable. Section 303(d) of the CWA requires WLAs to be implemented through the NPDES permit program. After a TMDL has been developed, water quality-based discharge limits in NPDES permits authorized under CWA section 402 must be consistent with the assumptions and requirements of the WLAs.[55]

The purpose of this section is to provide clear direction to permit writers regarding how these selenium TMDLs are to be incorporated into the relevant NPDES permit.

[54] Any changes in the proposed water column-based allocations will occur via a public participation process, and if requested, may require consideration and approval by the Regional Board.
[55] http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/overviewoftmdl.cfm

MS4 Permits

Effluent limitations are generally expressed in numerical form. However, USEPA guidance provides discretion for how TMDLs should be incorporated into permits for NPDES-regulated municipal and small construction stormwater discharges, including expressing effluent limitations as BMPs or other similar requirements rather than as numeric effluent limitations as long as the effluent limitations are clear, specific and measureable. As part of the assumptions and requirements of the WLAs, these selenium TMDLs specifically provide for BMP-based compliance, as one of several options, for MS4 Permittees.

As the WLAs are incorporated into the MS4 permit via appropriate effluent limitations, all assumptions and requirements of the WLAs, including all footnotes and all compliance options specified in the TMDLs and Allocations section, will be incorporated into the permit.

Other NPDES Permits

There are several Regional Board orders and/or NPDES permits that may be revised to incorporate the selenium TMDLs' WLAs. The expectation for incorporation of these selenium TMDLs is similar to that stated above for MS4 permits.

As the WLAs are incorporated into other NPDES permits via effluent limitations, the entirety of the WLAs, including all footnotes and all compliance options specified in the TMDLs and Allocations section, shall be incorporated into the permit.

However, there are some additional relevant issues to address for these Other NPDES permits.

- **Effluent limits:** Effluent limits, consistent with the applicable WLAs, will be incorporated into the permit. The approach to the WLAs explicitly acknowledges that the WLAs may be adjusted over time based upon new information. Consequential revisions to permits can be made via approval by the Executive Officer, per delegated authority by the Regional Board, unless during the public review process, a request is made to bring the modification before the Regional Board for consideration. When and if WLAs are adjusted, the most up to date WLAs shall be incorporated into the relevant permits as revised effluent limits.

    - **Compliance via the Offset and Trading Program:** These selenium TMDLs specifically provide for Other NPDES Permittees to comply with effluent limits implementing the WLAs via an Offset and Trading Program. The requirements of the program are specified above, but key aspects related to permit conditions are included here for clarity:

    - Regulated Parties may not rely on offset credits to demonstrate compliance with the applicable effluent limitation based on the WLA unless explicitly authorized by the permit and unless it has met the credit generation and prior approval requirements.

    - Satisfactory implementation of the Offset and Trading Program, in accordance with the terms and conditions specified by the Executive Officer, will constitute full compliance with the applicable effluent limitation specified to implement the

relevant WLA. The Regional Board retains discretion to revise the specific offset requirements to maintain consistency with the TMDLs. The Regional Board also retains discretion to reauthorize or disallow continued reliance on pollutant offset and trading projects to demonstrate compliance with the selenium WLA each time a discharge permit is renewed in order to ensure the TMDL implementation program is making reasonable progress. Such a determination will include an assessment of the Program's continued effectiveness in achieving greater water quality improvements than if the Program were disallowed.

Monitoring

Individual Action Plan Monitoring

For Regulated Parties implementing an Individual Action Plan, a monitoring program must be submitted as part of the Individual Action Plan, detailed above in the Implementation section.

Regional Monitoring Program

For Regulated Parties implementing a BMP Strategic Plan, a Regional Monitoring Program must be developed and submitted as part of the applicable BMP Strategic Plan. The Regional Monitoring Program must be submitted to the Executive Officer for approval[56], consistent with the schedule identified in Table 4.c.Se.2 and implemented upon that approval. A Regional Monitoring Program must be developed for each subwatershed area (San Diego Creek, Santa Ana-Delhi Channel, and Big Canyon Wash). The monitoring programs can be developed individually for each subwatershed or combined to address multiple subwatersheds (resulting in a minimum of one (1) and a maximum of three (3) monitoring programs) consistent with the applicable BMP Strategic Plan(s).

To be considered for approval by the Executive Officer, each Regional Monitoring Program must include the following elements:

- TMDL Evaluation Monitoring
- BMP Effectiveness Monitoring
- Offset and Trading Program Monitoring[57]
- Source Assessment Monitoring
- Other Considerations
- Special Studies
- Quality Assurance and Quality Control Measures

[56] It is expected that prior to Executive Officer approval, input and recommendations from the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife will be solicited concerning the proposed monitoring, particularly biological monitoring conducted as part of Assessment Area monitoring (see below).

[57] Only required where the Regulated Parties opt to implement an Offset and Trading Program.

The above monitoring elements reflect the various aspects of these selenium TMDLs that are supported, informed and/or evaluated by monitoring in the watershed. In order to ensure integration of these elements and the various components of these selenium TMDLs within each watershed, the monitoring requirements are contained within one unified document, the Regional Monitoring Program.

Regulated Parties may, and are encouraged to, integrate the various monitoring requirements as appropriate and necessary (e.g., one monitoring location may provide data for multiple purposes). Additionally, Regulated Parties may, and are encouraged to, integrate or coordinate the monitoring requirements for this TMDL with other existing monitoring efforts (e.g., other TMDLs, the MS4 Permit, other regional monitoring programs, etc.).

The specific requirements for each element of the Regional Monitoring Program are detailed below.

TMDL Evaluation Monitoring

The purpose of the TMDL evaluation monitoring is to assess progress toward the attainment of the WLAs, LAs, and the tissue-based numeric targets[58], consistent with California Water Code Section 13242.

The TMDL evaluation monitoring is divided into two categories:

- **Assessment Point Monitoring** – Assessment Point Monitoring will be used to assess, through water column monitoring, whether the WLAs and LAs are being attained. The assessment point within each of the subwatershed/channel areas is as follows:
- San Diego Creek subwatershed: San Diego Creek at Campus Drive
- Santa Ana-Delhi Channel: Santa Ana Delhi Channel upstream of Irvine Ave
- Big Canyon Wash subwatershed: Big Canyon Wash at the outfall to Upper Newport Bay at Back Bay Drive.

The monitoring parameters for the Assessment Point Monitoring must consist of the following:

- Water column: selenium (total and dissolved)[59]
- Flow[60]

[58] The monitoring program's purpose is not to determine permit compliance. Permit compliance will be determined as described in the TMDLs and Allocations section and Implementation Plan section.
[59] Selenium species in addition to total and dissolved selenium (collected at same time as assessment area monitoring is being conducted) should be considered, but are not required for all monitoring events or locations.
[60] To be measured at a nearby gauge or estimated at the point of sample collection if a nearby gauge is not present (e.g., Big Canyon Wash).

The frequency of sample collection must be sufficient to evaluate the WLAs and LAs (including the seasonal evaluation) and must be specified in the Regional Monitoring Program.

- **Assessment Area Monitoring** – Assessment area monitoring will be used to assess, through bird egg and fish tissue samples, attainment of the tissue-based numeric targets. Tissue samples must be collected throughout the subwatershed area. For instances where sufficient tissue samples cannot be collected from an assessment area, a surrogate parameter (e.g., macroinvertebrates such as crayfish; reptiles; amphibians) may be used. The surrogate parameter must be proposed in the Regional Monitoring Program and, therefore, is subject to approval by the Executive Officer. The purpose of the surrogate parameter is to allow for an alternative assessment, as appropriate, of the tissue-based numeric targets to avoid a default presumption of attainment or lack of attainment due to an insufficient number of tissue samples. Given that numeric targets have not been established for these surrogate parameters, they would be used for informative purposes (e.g., to observe trends over time) rather than to determine whether the TMDLs have been attained. Where sufficient tissue samples are not available, these selenium TMDLs do not default to the assessment of water column (per the Assessment Point Monitoring) to determine attainment of the TMDLs. Additionally, where sufficient tissue samples are not available, these selenium TMDLs do not default to a determination that the TMDLs have been attained.

The assessment areas are as follows:[61]

- San Diego Creek subwatershed
    i. Peters Canyon Wash
    ii. San Diego Creek
    iii. Off-Channel Wetlands (IRWD Constructed Treatment Wetlands and San Joaquin Marsh Reserve (UCI Wetlands))
- Santa Ana-Delhi Channel
    i. Santa Ana Gardens Channel
    ii. Santa Ana Delhi Channel (upstream of proposed diversion)
- Big Canyon Wash subwatershed
    i. Harbor View Nature Park
    ii. Big Canyon Country Club Golf Course Pond 4 or 5
    iii. Big Canyon Nature Park

[61] Each subwatershed, in its entirety, is the assessment area. The sub areas within the subwatersheds are identified to ensure that sampling occurs specifically within at least one of these areas.

At a minimum, the monitoring parameters for the Assessment Area Monitoring must consist of the following:

- **Bird Egg Tissue (individual eggs, contents only)**: total selenium; targeted species include shorebirds such as avocets or stilts (invertivorous birds), grebes (omnivorous or insectivorous birds), coots (omnivorous or herbivorous birds) and terns (piscivorous birds); since not all species are expected to be available in any given year within each subwatershed area, the monitoring program must be flexible with regard to the species targeted.

- **Fish Tissue (composite, whole-body tissue analyses)**: total selenium; targeted species include juvenile and adult fish of the *Centrarchidae* family (e.g., bluegill, largemouth bass) and smaller fish such as red shiners or mosquito fish; since not all species are expected to be available in any given year within each subwatershed area, the monitoring program must be flexible with regard to the species targeted.

- **Surrogate Parameters:** Field experience indicates that locations with limited habitat (e.g., Upper Peters Canyon Wash, Santa Ana-Delhi Channel, and Big Canyon Wash) may not reliably provide fish or bird eggs for collection. Therefore, the Regional Monitoring Program must identify appropriate surrogate parameters (e.g., larger macroinvertebrates, such as crayfish (tails only, exoskeleton removed), reptiles such as non-native turtles, or amphibians such as non-native frogs) for sampling. At a minimum, surrogate tissue samples will be analyzed for total selenium and percent solids.

The frequency of sample collection must be sufficient to evaluate the tissue-based numeric targets, provided sufficient samples can be collected during target sample collection times, and must be specified in the Regional Monitoring Program. [62] At a minimum, an attempt to collect samples must be conducted annually in each assessment area, unless and until the Executive Officer determines that sufficient tissue data has been obtained to adequately characterize conditions and a lower sample collection frequency is warranted. Bird egg collection should be conducted during the nesting season (generally March through August). Fish collection should be at the same time of year to capture the potential effects of fish as bird dietary items and for effects to fish reproduction (common timing for most of the target species).

BMP Effectiveness Monitoring

The purpose of the BMP effectiveness monitoring is to assess the effectiveness of the BMPs that have been implemented pursuant to the BMP Strategic Plan(s).

Changes in selenium concentrations in receiving waters, fish tissue, and bird eggs as a result of BMPs can be evaluated on either a project-specific or regional basis (e.g., the assessment area), depending upon the location and scale of the BMP. In addition, depending upon the

[62] It is expected that prior to Executive Officer approval, input and recommendations from the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife will be solicited concerning the proposed monitoring, particularly biological monitoring conducted as part of Assessment Area monitoring (see below).

type of BMP implemented, additional parameters or factors may be warranted (e.g., selenium speciation; bacteriological monitoring). Therefore, the monitoring that is appropriate to assess BMP effectiveness will be project-specific. However, to ensure integration of the goals and purposes of the BMP Strategic Plan and the Regional Monitoring Program, a project-specific monitoring plan must be developed for each project. The project-specific monitoring can be approved either through the BMP Strategic Plan approval process (including periodic updates) or through the Regional Monitoring Program approval process (including periodic updates). Each project-specific monitoring plan must be appended to the overall Regional Monitoring Program and address the following:

- Baseline conditions prior to the project;

- Monitoring locations and rationale for the monitoring locations. At a minimum, two (2) monitoring locations must be established: one immediately upstream of the BMP and one immediately downstream of the BMP. If warranted by the type of BMP implemented or its proximity to sensitive or important habitat, another monitoring location may be added further downstream of the BMP[63]. For diversion projects, monitoring upstream is not required (though monitoring of the diverted water is required, in order to quantify the selenium removed by the diversion[64]). For all types of BMPs, downstream monitoring may be coordinated with other monitoring locations where appropriate;

- Monitoring parameters, which at a minimum must include selenium in water (total and dissolved)[65];

- Frequency with which each selenium reduction BMP will be monitored once the BMP is constructed and fully functioning. Monitoring must be sufficient to determine performance and selenium reduction effectiveness; and

- Duration of the BMP effectiveness monitoring.

Offset and Trading Program Monitoring

The purpose of the offset and trading program monitoring component is to provide the data that verify the generation of credits, and to conduct assessments on the effects of the offsets and/or trades on receiving water conditions to prevent localized impacts. This monitoring element only applies to Regulated Parties that opt to participate in the Offset and Trading Program.

[63] The same monitoring location(s) can potentially be utilized for different aspects of the Regional Monitoring Program (e.g., a TMDL Evaluation location can also serve as a BMP effectiveness monitoring location), provided that the monitoring location will provide the necessary information. The intent of requiring all monitoring aspects in one Regional Monitoring Program is to integrate all of the requirements such that the program is efficient, effective, and practical.

[64] The sewering agency will require certain monitoring to be conducted of water that enters the sewer system. This monitoring data may be utilized to fulfill, fully or in part, monitoring requirements for the diversion projects.

[65] As determined on a project specific basis, the monitoring parameters may also include, if warranted, selenium species: selenate, selenite, and organic selenium.

For Regulated Parties who are generating credits via a BMP, at a minimum, monitoring must include the following[66]:

- Influent water to the BMP (prior to treatment)
- Water Column: selenium (total and dissolved)
- Flow
- Effluent water from the BMP (after treatment)
- Water Column: selenium (total and dissolved)[67]
- Flow

For Regulated Parties who are generating credits via a diversion project, at a minimum, monitoring must include the following:

- Influent water to the diversion
- Water Column: selenium (total and dissolved)
- Flow

For Regulated Parties who seek to use credits, at a minimum, monitoring must include the following:

- At the point of discharge:
- Water Column: selenium (total and dissolved)
- Flow
- Downstream of the point of discharge:
- Water Column: selenium (total and dissolved). Water column monitoring conducted under the TMDL compliance monitoring element may be sufficient to satisfy this requirement.
- Bird Egg Tissue: consistent with the requirements specified in the TMDL compliance monitoring element. Tissue monitoring conducted under the TMDL compliance monitoring element may be sufficient to satisfy this requirement.

[66] Note that the BMP itself will be assessed under the requirements specified in the BMP effectiveness monitoring aspect of the Regional Monitoring Program. The requirements specified here are specifically designed to assess the generation of credits for the Offset and Trading Program.

[67] Additional monitoring parameters may be required depending on the type of BMP being used (e.g., selenium species, bacteria, nutrients, dissolved oxygen).

- Fish Tissue: consistent with the requirements specified in the TMDL compliance monitoring element. Tissue monitoring conducted under the TMDL compliance monitoring element may be sufficient to satisfy this requirement.

Source Assessment Monitoring

As BMPs needed to achieve these proposed selenium TMDLs are implemented, and as conditions in the subwatershed areas change over time, the collection of selenium source data in each of the subwatershed areas may be necessary to identify and assess significant remaining inputs that do not have BMPs. The need for and selection of additional sample collection locations will be based on the results of Assessment Point and Assessment Area monitoring. Each Regional Monitoring Program must provide for this monitoring element.

Other Considerations

In addition to the required elements of the Regional Monitoring Program (TMDL evaluation monitoring, BMP effectiveness monitoring, offset and trading program monitoring, and source assessment monitoring), other elements, such as those listed below, may be considered for inclusion in the Regional Monitoring Program. These elements are not required components of the Regional Monitoring Program, but may be considered as the program develops or added based on consultation with Regional Board staff, and may change over time:

- **Selenium Speciation** – The chemical speciation of selenium is a critical consideration in assessing the potential impacts of selenium because the bioavailability and toxicity of selenium are greatly affected by its chemical forms. Additionally, the various chemical forms of selenium bioaccumulate at different rates. Monitoring aimed at collecting data on the chemical speciation of selenium in the water column should be considered where appropriate. Where selenium speciation is included as part of the assessment area monitoring, the water column samples should be collected within each assessment area at the same location and same time as the fish collection occurs.

- **Additional Monitoring Sites** – Additional sites that provide meaningful data to support refinement of the TMDLs and/or BMP implementation may be considered. These sites would not be used for TMDL evaluation purposes (as detailed under "TMDL Evaluation Monitoring" above), but to support future decision-making.

- **Additional Monitoring Triggers** – As part of the overall adaptive management aspect of these selenium TMDLs, the Regional Monitoring Program may consider triggers where additional monitoring is warranted (e.g., tissue concentrations that are orders of magnitude higher than other samples).

Special Studies

Special studies are supplemental to the core, routine components of the Regional Monitoring Program. These studies are intended to answer discrete questions and are not intended to be part of the routine monitoring conducted through the Regional Monitoring Program. These studies can inform and fill data gaps that support refinement and/or modification to these proposed selenium TMDLs. Therefore, any special study conducted during Phase I must be

completed consistent with the schedule in **Table 4.c.Se.2** in order to be considered during the TMDL Reconsideration.

As part of Phase I of these TMDLs, the following special studies may be implemented by the Regulated Parties or Regional Board:

- **Model Comparison:** This study would provide a comparison of the biodynamic model and a selenium BAF or BSAF model for the Newport Bay watershed. The purpose of the comparison would be to evaluate if the BAF/BSAF model performs equally well for the watershed and to consider revision of the modeling approach utilized for the linkage analysis portion of these selenium TMDLs.

- **Refinement of Site-Specific K_d values:** This study would focus on obtaining algae, fine organic surficial sediment, and suspended particulates from multiple locations in the watershed to aid in refining the partitioning coefficients used in the biodynamic model to predict the probable selenium water column concentrations needed to meet the numeric tissue targets.

- **Special Studies by Regulated Parties:** Additional special studies may be proposed during implementation of Phase I of the proposed selenium TMDLs as funding allows and as deemed necessary. To be considered during the TMDL Reconsideration process, the proposed special studies must meet the following requirements and be submitted to the Regional Board's Executive Officer for review and approval:

- **Purpose** – Identification of the data and/or information gap that will be filled by completion of the special study.

- **Timeframe** – Identification of the timeframe for completing the special study. The special study must be completed within a time period that allows a sufficient amount of time for the results of the special study to be considered during the TMDL Reconsideration process.

- **Link to TMDL Reconsideration** – Identification of the manner in which the results of the special study can be used to revise the TMDLs during the Reconsideration process.

- **Special Studies Requested by the Regional Board:** The Regional Board may identify the need for additional special studies during the implementation of these selenium TMDLs. Where warranted, the Regional Board may issue a California Water Code Section 13267 Order. The Order would meet the requirements of Section 13267 as well as identify the purpose, timeframe, and link to TMDL reconsideration.

Quality Assurance and Quality Control Measures

The Regional Monitoring Program must identify the quality assurance and quality control measures (QA/QC) that will be implemented. At a minimum, the Regional Monitoring Program must be consistent with the requirements of California's Surface Water Ambient Monitoring Program (SWAMP).

Reporting

Reporting is an integral component of these selenium TMDLs as it provides the foundation for assessing progress in attaining the TMDLs and the adaptive management process. Reporting requirements for Regulated Parties implementing a BMP Strategic Plan or an Individual Action Plan are detailed below.

BMP Strategic Plan Reporting

For Regulated Parties implementing BMP Strategic Plan(s), an annual report must be submitted to the Regional Board, consistent with the schedule identified in **Table 4.cSe.2**.

BMP Strategic Plan Annual Reports must, at a minimum, address the following:

- **Baseline and Source Control Activities** – Detail the baseline and source control activities implemented during the reporting year.

- **Selenium Reduction Projects** – Detail the selenium reduction projects implemented during the reporting year, including the characteristics, timeframe, and resulting changes in selenium loading and concentration of each project, including as appropriate, any changes in selenium species, and any resultant changes in stream flows/hydrology.

- **Goals** – Evaluate progress in attainment of the goal(s) of the BMP Strategic Plan.

- **Schedule** – Verify that actions were implemented consistent with the approved BMP Strategic Plan schedule.

- **Monitoring Results** – Evaluate the results from the Regional Monitoring Program, including:

- BMP effectiveness monitoring

- Progress in attaining WLAs

- Progress in attaining numeric targets

- If applicable, results and recommendations from any special studies

- **BMP/Technology Evaluation** – When applicable per the schedule defined as part of an approved BMP Strategic Plan, provide any BMP/technology evaluations. Evaluations can be submitted as a separate, stand-alone report.

- **Adaptive Management** – Based upon the results of the reporting year, propose any minor modifications to the BMP Strategic Plan and/or Regional Monitoring Program, if necessary and appropriate.[68]

- **Data** – Submit data from the Regional Monitoring Program in Excel format to Regional Board staff on a semi-annual basis if exceedances of the numeric targets are observed, and annually if exceedances of the numeric targets are not observed. Data must also be uploaded to the California Environmental Data Exchange Network (CEDEN) on an annual basis. If and as a specific need arises, respond to specific data requests by Regional Board staff as soon as possible.

Individual Action Plan Reporting

Individual Action Plans are provided as part of these selenium TMDLs recognizing that certain discharges may be short-term in nature and that long-term participation in a BMP Strategic Plan may, thus, be inappropriate. Therefore, the reporting schedule will be determined on a case-by-case basis for each Regulated Party opting to implement an Individual Action Plan. As noted above, the reporting schedule must be included as part of the Individual Action Plan, which is subject to approval by the Executive Officer.

The Individual Action Plan reports must include the following:

- **Volume Reduction BMPs** – Detail the volume reduction BMPs implemented during the reporting period;
- **Method of Attaining the Final WLAs** – Describe the method of attaining the final WLAs during the reporting period:
    - Participation in an approved Offset and Trading Program, such that the discharge is offset consistent with the requirements of the Offset and Trading Program, including the applicable offset ratios and restrictions pertaining to impacts to downstream beneficial uses; OR
    - Implementation of BMPs to attain the final WLAs at the point of discharge; OR
    - No discharge (e.g., sewer the discharge).
- **Schedule** – Verify that actions were implemented consistent with the approved Individual Action Plan schedule.
- **Monitoring Results** – Evaluate the results of the Individual Action Plan monitoring program to demonstrate that the selected method to attain the final WLAs was effective.
- **Data** – Submit data from the Individual Action Plan Monitoring Program in Excel format to the Regional Board's Executive Officer for review and approval in accordance with the schedule identified in the permittees Individual Action Plan. Data

[68] Due to the compressed timeframe for Phase I, it is anticipated that only minor modifications to the BMP Strategic Plans will occur during Phase I. However, a more robust adaptive management process will be required during Phase II of these TMDLs.

must also be uploaded to the California Environmental Data Exchange Network (CEDEN).

Table 4.c.Se.2 Newport Bay Watershed Selenium TMDLs Implementation and Compliance Schedule

PHASE I		
Date	**Action**	**Implemented By**
3 months from TMDL effective date	Submit Phase I BMP Strategic Plan for approval by the Executive Officer; implement upon approval	MS4 Permittees; Other NPDES Permittees (existing discharges) opting to participate in a BMP Strategic Plan
3 months from TMDL effective date	Submit Regional Monitoring Program for approval by the Executive Officer; implement upon approval.	MS4 Permittees; existing Other NPDES Permittees opting to participate in a BMP Strategic Plan (in lieu of an Individual Action Plan)
3 months from TMDL effective date	Submit Offset and Trading Program for approval by the Executive Officer; implement upon approval.	MS4 Permittees; existing Other NPDES Permittees opting to participate in an Offset and Trading Program
Submit with Notice of Intent	Submit Individual Action Plan OR documentation of participation in an approved BMP Strategic Plan	Other NPDES Permittees (new discharges)[1]
1 year from approval of Phase I BMP Strategic Plan, then annually thereafter	Submit annual report to Regional Board	MS4 Permittees; Other NPDES Permittees opting to participate in a BMP Strategic Plan
As determined in the approved Individual Action Plan	Submit reports to Regional Board	Other NPDES Permittees opting to implement an Individual Action Plan in lieu of participation in a BMP Strategic Plan
To be considered during the TMDL Reconsideration - 5 years from TMDL effective date	Complete any special studies and submit final report on study to Regional Board	MS4 Permittees; Other NPDES Permittees opting to implement a Special Study
Within 5 years from TMDL effective date	Complete development of selenium SSO	Regional Board with support from MS4 Permittees and Other NPDES Permittees
6 years from TMDL effective date	Complete implementation of Phase I BMP Strategic Plans	MS4 Permittees; Other NPDES Permittees opting to participate in a BMP Strategic Plan (in lieu of an Individual Action Plan)
TMDL RECONSIDERATION		
As soon as possible after the completion of Phase I, but no later than 8 years from the TMDL effective date	Reconsider TMDL -the entirety, or selected sections, of the selenium TMDLs and supporting documentation may be	Regional Board

	modified during the TMDL Reconsideration	
Throughout TMDL Reconsideration Period	Continue to implement Phase I BMP Strategic Plan	MS4 Permittees; Other NPDES Permittees (existing discharges) opting to participate in the BMP Strategic Plan
PHASE II		
Date	**Action**	**Implemented By**
6 months from Reconsidered TMDL effective date	Submit Phase II BMP Strategic Plan[2] for approval by the Executive Officer; implement upon approval	MS4 Permittees; Other NPDES Permittees (existing discharges) opting to participate in a BMP Strategic Plan
6 months from Reconsidered TMDL effective date	Submit Regional Monitoring Program for approval by the Executive Officer; implement upon approval	MS4 Permittees; existing Other NPDES Permittees opting to participate in a BMP Strategic Plan
Submit with Notice of Intent	Submit Individual Action Plan OR documentation of participation in an approved BMP Strategic Plan	Other NPDES Permittees (new discharges)[1] opting to implement an Individual Action plan in lieu of participation in the BMP Strategic Plan and Other NPDES Permittees opting to participate in a BMP Strategic Plan
1 year from approval of Phase II BMP Strategic Plan, then annually thereafter	Submit annual report to Regional Board	MS4 Permittees; Other NPDES Permittees opting to participate in a BMP Strategic Plan
As determined in the approved Individual Action Plan	Submit reports to Regional Board	Other NPDES Permittees (new discharges) opting to implement an Individual Action Plan in lieu of participation in the BMP Strategic Plan
9 years from Reconsidered TMDL Effective Date	Evaluate WLAs/LAs and submit report with recommendations to the Regional Board[3]	MS4 Permittees; Other NPDES Permittees opting to participate in the BMP Strategic Plan
10 years from Reconsidered TMDL effective date	TMDL Reopener	Regional Board
19 years from Reconsidered TMDL effective date	Evaluate WLAs/LAs and submit report with recommendations to the Regional Board[3]	MS4 Permittees; Other NPDES Permittees opting to participate in the BMP Strategic Plan
20 years from Reconsidered TMDL effective date	TMDL Reopener	Regional Board
As soon as possible but no later than 30 years from Reconsidered TMDL effective date	Complete implementation of Phase II BMP Strategic Plans	MS4 Permittees; Other NPDES Permittees opting to participate in the BMP Strategic Plan
As soon as possible but no later than 30 years from Reconsidered TMDL effective date	Attain Final WLAs[4]	MS4 Permittees and Other NPDES Permittees opting to participate in a BMP Strategic Plan AND Other NPDES Permittees (new discharges) opting to implement an Individual

		Action Plan in lieu of participation in the BMP Strategic Plan
	Attain Final LAs[4]	Non-Point Source dischargers

[1] = The TMDL considers that there may be new dischargers after the TMDL becomes effective (e.g., a short-term groundwater discharger that was not discharging at the time the TMDL became effective).

[2] = The schedule in the approved Phase II BMP Strategic Plan will include periodic updates and revisions, anticipated to be every 5 years throughout Phase II of these proposed selenium TMDLs. The schedule is subject to approval by the Executive Officer.

[3] = As the models are directly incorporated into the assumptions and requirements of the WLAs and LAs, the Regional Board can re-evaluate the allocations at any time and, through a public review process, modify the allocations. The discrete tasks here reflect the minimum frequency for re-evaluation of the allocations. Any additional reviews beyond those specified in the implementation schedule would be at the discretion of the Regional Board or at the request of Regulated Parties.

[4] = While the tissue-based WLAs and LAs are expected to result in attainment of the tissue-based numeric targets, bioaccumulation in the various foodwebs in the watershed may be different than what was modeled with the biodynamic model as part of the Linkage Analysis. Therefore, where tissue-based numeric targets are attained, the corresponding WLAs/LAs will also be deemed to be attained, regardless of the actual measured water column concentration.

End of Resolution No. R8-2017-0014

Anaheim Bay / Huntington Harbour

As in Newport Bay, bacteria and toxics threaten the water quality and beneficial uses of Anaheim Bay/Huntington Harbour. As shown in Table 5-10 in Chapter 5, the presence of toxic metals and pesticides/herbicides has resulted in the designation of Anaheim Bay and Huntington Harbour as a Toxic Hot Spot for some constituents and a Potential Toxic Hot Spot for other constituents. Two major storm drains, the Bolsa Chica Channel and the East Garden Grove Wintersburg Channel, as well as their tributaries, drain in to the Anaheim Bay / Huntington Harbour complex. Inputs of stormwater and urban nuisance flows via these channels appear to be significant sources of pollutants. The County of Orange's general stormwater permit requires the implementation of best management practices (BMPs) and other measures in the watershed to control these inputs to the maximum extent practicable.

During 1992-93, the Regional Board contracted with UC Irvine and UC Davis to evaluate the occurrence and impacts of these toxics in Huntington Harbour [Ref. 23, 24]. Results of the study indicated that concentrations of trace metals have decreased over a 13 year period and 1992/93 measurements met established water quality criteria. However, an unidentified nonpolar organic compound was found to be acutely toxic to test species.

Anaheim Bay (inland of Pacific Coast Highway Bridge) and Huntington Harbour are designated as no discharge areas for vessel sanitary wastes. Pumpout facilities are in place throughout the Harbour to facilitate compliance. Additional discussion of the activities of the Huntington Harbour Waterways Committee is provided in Chapter 8.

Big Bear Lake (The following added under Resolution No. R8-2006-0023)

Big Bear Lake, located in the San Bernardino Mountains, was created by the construction of the Bear Valley Dam in 1884. The Lake has a surface area of approximately 3,000 acres, a storage capacity of 73,320 acre-ft. and an average depth of 24 feet. The lake reaches its deepest point of 72 feet at the dam. The Big Bear Lake drainage basin encompasses 37 square miles and includes more than 10 streams. Local stream runoff and precipitation on the Lake are the sole source of water supply to the Lake. The spillway altitude is 6,743.2 feet. The major inflows to the lake are creeks, including Rathbone (Rathbun) Creek, Summit Creek, and Grout Creek. Outflow from the Lake is to Bear Creek, which is tributary to the Santa Ana River at about the 4,000-foot elevation level. Twelve percent of Big Bear Lake's drainage basin consists of the Lake itself. The US Forest Service is the largest landowner in the Big Bear area. Two ski resorts, Bear Mountain and Snow Summit, lease land from the Forest Service.

The beneficial uses of Big Bear Lake include cold freshwater habitat (COLD), warm freshwater habitat (WARM), water contact recreation (REC1), non-contact water recreation (REC2), municipal and domestic supply (MUN), agriculture supply (AGR), groundwater recharge (GWR), wildlife habitat (WILD) and rare, threatened or endangered species (RARE).

Big Bear Lake is moderately eutrophic. During the summer months, deeper water may exhibit severe oxygen deficits. Nutrient enrichment has resulted in the growth of aquatic plants, which has impaired the fishing, boating, and swimming uses of the lake. To control this vegetation, mechanical harvesters are used to remove aquatic plants, including the roots.

Toxics may be entering the Big Bear Lake watershed and accumulating in aquatic organisms and bottom sediments at concentrations that are of concern, not only for the protection of aquatic organisms, but for the protection of human health as well. Past Toxic Substances Monitoring Program data have indicated the presence of copper, lindane, mercury, zinc, and PCBs in fish tissue.

During 1992-93, the Regional Board conducted a Phase I Clean Lakes study (Section 314 of the Clean Water Act) to evaluate the current water quality condition of the lake and its major tributaries [Ref. 25]. The focus of the study was to identify the tributaries responsible for inputs of toxics and nutrients. As a result of data collected in the Clean Lakes Study, Big Bear Lake and specific tributaries were placed on the 1994 Clean Water Act Section 303(d) List of Water Quality Limited Segments for the reasons indicated in Table 6-1a-b.

Table 6-1a-b

Big Bear Lake Watershed Waterbodies on the 1994 303(d) List of Impaired Waters

WATERBODY	STRESSOR
Big Bear Lake	nutrients
	noxious aquatic plants
	sedimentation/siltation
	metals
	copper
	mercury
Rathbone (Rathbun) Creek	nutrients
	sedimentation/siltation
Grout Creek	metals
	nutrients
Summit Creek	nutrients
Knickerbocker Creek	metals
	pathogens

In 2000, the Regional Board convened a TMDL workgroup to assist in the development of Total Maximum Daily Loads for the Big Bear Lake watershed. The Big Bear Municipal Water District, a key contributor to the workgroup, created the Big Bear Lake TMDL Task Force, including representatives of the District, Regional Board staff, the San Bernardino County Flood Control District, the City of Big Bear Lake, the Big Bear Area Regional Wastewater Authority, the State of California Department of Transportation (Caltrans), the US Forest Service and the Big Bear Mountain Resorts. Initial TMDL development efforts were focused on nutrients, leading to Regional Board adoption of a nutrient TMDL for dry hydrological conditions for Big Bear Lake in 2006. Nutrient TMDLs for wet and/or average hydrological conditions will be incorporated in the Basin Plan when these TMDLs are developed in the future. As shown in Table 6-1a-f, the development of these TMDLs is a requirement of the adopted TMDL implementation plan for the nutrient TMDL for dry hydrological conditions.

1. Big Bear Lake Nutrient Total Maximum Daily Loads (TMDLs)

Past studies, starting in 1968/1969, have shown that Big Bear Lake is moderately eutrophic and that the limiting nutrient is generally phosphorus. In Big Bear Lake, nutrients (nitrogen and phosphorus) are available in the water column and sediment and are taken up by aquatic macrophytes and algae. Nutrients are also bound in living and dead organic material, primarily macrophytes and algae. Decomposition of this organic material, as well as macrophyte and algal respiration, consumes dissolved oxygen, resulting in the depletion of dissolved oxygen from the water column. Oxygen depletion in the hypolimnion results in anoxic conditions, leading to periodic fish kills in Big Bear

Lake. Oxygen depletion also results in the release of nutrients from the sediment into the water column, promoting more algae and aquatic macrophyte production. Nutrients released by plant decomposition are cycled back into a bioavailable form.

Although aquatic macrophytes provide protection from shoreline erosion, habitat for fish and other aquatic biota and waterfowl habitat, excessive growth of noxious and nuisance species, particularly Eurasian watermilfoil (*Myriophyllum spicatum*) impairs recreational uses of the Lake and reduces plant and animal species and habitat diversity.

As stated above, development of nutrient TMDLs to address these problems was initiated in 2000. In this process, it was recognized that insufficient data for wet or average hydrological conditions were available to allow calibration of the lake water quality model used to calculate the TMDL. Accordingly, a TMDL was developed to address dry hydrologic conditions only (see Section 1.B., below). This TMDL was adopted by the Regional Board in 2006 and became effective on August 21, 2007. The implementation plan included with this TMDL specifies a requirement for the development of nutrient TMDLs for wet and/or average hydrological conditions.

A key step in the development of the nutrient TMDL was the identification of the numeric targets to be achieved. The numeric targets, identified in Section 1.A., below, do not vary based upon hydrological condition. Like the approved TMDL for dry hydrological conditions, the TMDLs for wet and/or average hydrological conditions that will be developed are expected to assure also that these numeric targets are achieved. Indeed, since the TMDL for dry hydrological conditions was developed to meet the

targets under the critical, worst-case conditions, consistent compliance with these targets is expected to be achieved even in the absence of TMDLs for wet/average hydrological conditions, given the greater lake volume and dilution anticipated under wetter conditions. It is recognized that future modifications to the targets may be found necessary.

1. A. Numeric Targets

As shown in Table 6-1a-c, both “causal and response” numeric targets are specified for Big Bear Lake. The causal target is for phosphorus. Phosphorus is the primary limiting nutrient in Big Bear Lake[69] Response targets include macrophyte coverage, percentage of nuisance aquatic vascular plant species and chlorophyll *a* concentration. These response targets are more direct indicators of impairment and are specified to assess and track water quality improvements in Big Bear Lake. A weight of evidence approach will be used to assess compliance with the TMDL, which means that data pertaining to all the numeric targets will be evaluated and

[1]There is evidence that nitrogen is a limiting nutrient under certain conditions. However, given data and analytical limitations, no nitrogen targets are specified. Nitrogen monitoring is required as part of this TMDL. The data will be used to specify nitrogen targets in the future, as warranted.

non-compliance with one target will not automatically imply non-compliance with the TMDL.

Table 6-1a-c
Big Bear Lake Nutrient TMDL Numeric Targets[a]

Indicator	Target Value
Total P concentration	Annual average[b] no greater than 35 µg/L; to be attained no later than 2015 (dry hydrological conditions), 2020 (all other times)[c]
Macrophyte Coverage	30-40% on a total lake area basis; to be attained by 2015 (dry hydrological conditions), 2020 (all other times) [c, d]
Percentage of Nuisance Aquatic Vascular Plant Species	95% eradication on a total area basis of Eurasian Watermilfoil and any other invasive aquatic plant species; to be attained no later than 2015 (dry hydrological conditions), 2020 (all other times) [c, d]
Chlorophyll *a* concentration	Growing season[e] average no greater than 14 µg/L; to be attained no later than 2015 (dry hydrological conditions), 2020 (all other times)[c]

[a] Compliance with the targets to be achieved as soon as possible, but no later than the date specified
[b] Annual average determined by the following methodology: the nutrient data from both the photic composite and discrete bottom samples are averaged by station number and month; a calendar year average is obtained for each sampling location by averaging the average of each month; and finally, the separate annual averages for each location are averaged to determine the lake-wide average. The open-water sampling locations used to determine the annual average are MWDL1, MWDL2, MWDL6, and MWDL9 (see 1.B.4. Implementation, Task 4.2, Table 6-1a-i).
[c] Compliance date for wet and/or average hydrological conditions may change in response to approved TMDLs for wet/average hydrological conditions.
[d] Calculated as a 5-yr running average based on measurements taken at peak macrophyte growth as determined in the Aquatic Plant Management Plan (see 1.B.4. Implementation, Task 6C)
[e] Growing season is the period from May 1 through October 31 of each year. The open-water sampling locations used to determine the growing season average are MWDL1, MWDL2, MWDL6 and MWDL9 (see 1.B.4. Implementation, Task 4.2, Table 6-1a-i). The chlorophyll *a* data from the photic samples are averaged by station number and month; a growing season average is obtained for each sampling location by averaging the average of each month; and finally, the separate growing season averages for each location are averaged to determine the lake-wide average.

1.B. Big Bear Lake Nutrient Total Maximum Daily Load (TMDL) for Dry Hydrological Conditions

The TMDL technical report [Ref. #26] describes in detail the technical basis for the TMDL for Dry Hydrological Conditions that follow.

1.B.1. Nutrient TMDL, WLAs and LAs and Compliance Dates – Dry Hydrological Conditions

A TMDL, and the WLAs and LAs necessary to achieve it, are established for total phosphorus for dry hydrological conditions only. As stated above, phosphorus and nitrogen are the nutrients that cause beneficial use impairment in Big Bear Lake. Dry hydrological conditions are defined by the conditions observed from 1999-2003; that is, average tributary inflow to Big Bear Lake ranging from 0 to 3,049 AF, average lake levels ranging from 6671 to 6735 feet and annual precipitation ranging from 0 to 23 inches. TMDLs, WLAs and LAs for wet and/or average hydrological conditions will be established as part of the TMDL Phase 2 activities once additional data have been collected (see 1.B.4. TMDL Implementation, Task 9).

The phosphorus TMDL for Big Bear Lake for dry hydrological conditions is shown in Table 6-1a-d. Wasteload allocations for point source discharges and load allocations for nonpoint source discharges are shown in Table 6-1a-e.

Table 6-1a-d

Big Bear Lake Nutrient TMDL for Dry Hydrological Conditions

	Total Phosphorus (lbs/yr) [b]
TMDL[a]	26,012

[a] Compliance to be achieved as soon as possible, but no later than December 31, 2015.
[b] Specified as an annual average for dry hydrological conditions only.

Table 6-1a-e

Big Bear Lake
Phosphorus Wasteload and Load Allocations for Dry Hydrological Conditions

Big Bear Lake Nutrient TMDL for Dry Hydrological Conditions	Total Phosphorus Load Allocation (lbs/yr)[a, b]
TMDL	26,012
WLA	475
Urban	475
LA	25,537
Internal Sediment	8,555
Internal macrophyte	15,700
Atmospheric Deposition	1,074
Forest	175
Resort	33

[a] Allocation compliance to be achieved as soon as possible, but no later than December 31, 2015.
[b] Specified as an annual average for dry hydrological conditions only.

1.B.2. Margin of Safety

The Big Bear Lake Nutrient TMDL for Dry Hydrological Conditions includes an implicit margin of safety (MOS) as follows:

1. The derivation of numeric targets based on the 25th percentile of nutrient data;

2. The use of conservative assumptions in modeling the response of Big Bear Lake to nutrient loads.

1. B.3. Seasonal Variations/Critical Conditions

The critical condition for attainment of aquatic life and recreational uses in Big Bear Lake occurs during the summer and during dry years, when nutrient releases from the sediment are greatest and water column concentrations increase. Macrophyte biomass peaks in the summer/early fall. Recreational uses of the lake are also highest during the summer. This nutrient TMDL for Big Bear Lake is focused on the critical dry hydrological conditions and, in particular, on the control of the internal sediment loads that dominate during these periods. This is the first phase of TMDLs needed to address eutrophication in Big Bear Lake. The next phase will include collection of data needed to refine the in-lake and watershed models (see 1.B.4. TMDL Implementation, Task 6A) and to

develop TMDLs that address other hydrological conditions (see 1.B.4. TMDL Implementation, Task 9). TMDLs for wet and average hydrological conditions will be developed to address external loading that contributes to the nutrient reservoir in the lake and thus eutrophic conditions, particularly during the critical dry periods. However, it is important to note again that since the TMDL for dry hydrological conditions was developed to meet the numeric targets under the critical, worst-case conditions, consistent compliance with these targets is expected to be achieved even in the absence of TMDLs for wet/average hydrological conditions, given the greater lake volume and dilution anticipated under wetter conditions.

The TMDL recognizes that different nutrient inflow and cycling processes dominate the lake during different seasons. These processes were simulated in the in-lake model using data collected during all seasons over a multi-year period**.** Thus, the model results reflect all seasonal variations. The phosphorus numeric target is expressed as an annual average, while the chlorophyll *a* numeric target is expressed as a growing season average. The intent is to set targets that will, when achieved, result in improvement of the trophic status of Big Bear Lake year-round.

Compliance with numeric targets will ensure water quality improvements that prevent excessive algae blooms and fish kills, particularly during the critical summer period when these problems are most likely to occur.

1.B.4. TMDL Implementation

Table 6-1a-f outlines the tasks and schedules to implement the TMDL for Dry Hydrological Conditions. Each of these tasks is described below.

Table 6-1a-f

Big Bear Lake Nutrient TMDL Implementation Plan/Schedule Report Due Dates

Task	Description	Compliance Date-As soon As Possible but No Later Than
TMDL Phase 1		
Task 1	Establish New Waste Discharge Requirements for Nutrient Sources	February 29, 2008
Task 2	Establish New Waste Discharge Requirements for Lake Restoration Activities	February 28, 2009
Task 3	Revise Existing Waste Discharge Requirements	February 29, 2008

Task 4	Nutrient Water Quality Monitoring Program 4.1 Watershed-wide Nutrient Monitoring Plan(s) 4.2 Big Bear Lake Nutrient Monitoring Plan(s)	Plan/schedule due November 30, 2007. Annual reports due February 15
Task 5	Atmospheric Deposition Determination	Plan/schedule due August 31, 2008
Task 6	Big Bear Lake – Lake Management Plan, including: 6A. Big Bear Lake and Watershed Model Updates 6B. Big Bear Lake In-Lake Sediment Nutrient Reduction Plan 6C. Big Bear Lake Aquatic Plant Management Plan	Plan/schedule due August 31, 2008. Annual reports due February 15
TMDL Phase 2		
Task 7	Review/Revision of Big Bear Lake Water Quality Standards 7.1 Review/Revise Nutrient Water Quality Objectives 7.2 Development of biocriteria 7.3 Development of natural background definition	**December 31, 2015**
Task 8	Review Big Bear Lake Tributary Data	**December 31, 2008**
Task 9	Develop TMDLs, WLAs and LAs for wet and/or average hydrological conditions	**December 31, 2012**
Task 10	Review of TMDL/WLAs/LAs	Once every three years

Task 1: Establish New Waste Discharge Requirements for Nutrient Sources

On or before February 29, 2008, the Regional Board shall issue the following new waste discharge requirements

1.1 Waste Discharge Requirements (WDRs) or Conditional Waiver of WDRs to the US Forest Service to incorporate the nutrient load allocations, compliance schedule and monitoring and reporting requirements for Forested Areas.

Other nutrient discharges will be addressed and permitted as appropriate.

Task 2: Establish New Waste Discharge Requirements for Lake Restoration Activities

On or before February 28, 2009, the Regional Board shall issue the following new waste discharge requirements:

NPDES Permit to the US Forest Service, the State of California, Department of Transportation (Caltrans), the County of San Bernardino, San Bernardino County

Flood Control District, the City of Big Bear Lake, and Big Bear Mountain Resorts for Lake restoration activities, including, but not limited to alum treatment and/or herbicide treatment. Requirements specified in these Waste Discharge Requirements, shall be developed using the Aquatic Plant Management Plan and Schedule submitted pursuant to Task 6C.

Task 3: Review and/or Revise Existing Waste Discharge Requirements

Waste Discharge Requirements (WDRs) have been issued by the Regional Board regulating discharge of various types of wastes in the Big Bear Lake watershed. On or before February 29, 2008, these WDRs shall be reviewed and revised as necessary to incorporate the nutrient wasteload allocations, compliance schedule and TMDL monitoring and reporting requirements.

3.1 Waste Discharge Requirements for the San Bernardino County Flood Control and Transportation District, the County of San Bernardino and the Incorporated Cities of San Bernardino County within the Santa Ana Region, Areawide Urban Runoff, NPDES No. CAS 618036 (Regional Board Order No. R8-2002-0012).

The current Order has provisions to address TMDL issues. In light of these provisions, revision of the Order may not be necessary to address TMDL requirements.

3.2 State of California, Department of Transportation (Caltrans) Stormwater Permit

Provision E.1 of Order No. 99-06-DWQ requires Caltrans to maintain and implement a Storm Water Management Plan (SWMP). Annual updates of the SWMP needed to maintain an effective program are required to be submitted to the State Water Resources Control Board.

Provision E.2 of Order No. 99-06-DWQ requires Caltrans to submit a Regional Workplan by April 1 of each year for the Executive Officer's approval. As part of the annual update of the SWMP and Regional Workplan, Caltrans shall submit plans and schedules for conducting the monitoring and reporting requirements specified in Task 4 and the special studies required in Task 6.

Task 4: Monitoring

4.1 Watershed-wide Nutrient Water Quality Monitoring Program

No later than November 30, 2007, the US Forest Service, the State of California, Department of Transportation (Caltrans), the County of San Bernardino, San Bernardino County Flood Control District, the City of Big Bear Lake and Big Bear Mountain Resorts shall, as a group, submit to the Regional Board for approval a proposed watershed-wide nutrient monitoring program that will provide data necessary to review and update the Big Bear Lake Nutrient TMDL, to determine specific sources of nutrients and to develop TMDLs for other hydrological conditions.

Data to be collected and analyzed shall address, at a minimum, determination of compliance with the phosphorus dry condition TMDL, including the WLAs and LAs, and with the existing total inorganic nitrogen (TIN) objective.

At a minimum, the proposed plan shall include the collection of samples at the stations specified in Table 6-1a-g and shown in Figure 6-3, at the frequency specified in Table 6-1a-h. Modifications to the required sampling stations, sampling frequencies and constituents to be monitored (see below) will be considered upon request by the stakeholders, accompanied by a report that describes the rationale for the proposed changes and identifies recommended alternatives. In addition to water quality samples, every two weeks on a year-round basis, visual monitoring (including documenting flow type and stage) determinations shall be made at all stations shown in Table 6-1a-g. Flow measurements will be required each time water quality samples are obtained.

At a minimum, samples shall be analyzed for the following constituents:

- Total nitrogen
- Nitrate + nitrite nitrogen
- Total phosphorus
- Total dissolved phosphorus
- Suspended sediment concentration
- Chlorophyll *a*
- Dissolved oxygen
- Alkalinity
- Bedload concentration
- Total nitrogen in sediment
- Ammonia nitrogen
- Total dissolved nitrogen
- Ortho-phosphate (SRP)
- Temperature
- Turbidity
- pH
- Conductivity
- Hardness
- Grain size
- Total phosphorus in sediment

Note: Chlorophyll *a* to be collected and analyzed only from May 1- October 31 of each year at the frequencies described in Table 6-1a-h; chlorophyll *a* sampling not required at Bear Creek outlet.

In addition, the proposed plan shall include a proposed plan and schedule for development of a Big Bear Lake Sedimentation Processes Plan for the determination of nutrient loads associated with sediment. At a minimum, the proposed plan shall include the placement of sediment traps at the mouths of Rathbun, Knickerbocker, Grout and Boulder Creeks to determine the rate of influx of sediment and particulate nutrients to Big Bear Lake, as specified in Table 6-1a-g and shown in Figure 6-3, at the specified frequency indicated in Table 6-1a-h. Modifications to the required sampling stations, sampling frequencies and constituents to be monitored will be considered upon request by the stakeholders, accompanied by a report that describes the rationale for the proposed changes and identifies recommended alternatives. The proposed monitoring plan shall be implemented upon Regional Board approval at a duly noticed public meeting. An annual report summarizing the data collected for the year and evaluating compliance with the TMDL/WLAs/LAs shall be submitted by February 15 of each year.

In lieu of this coordinated monitoring plan, one or more of the parties identified above may submit a proposed individual or group monitoring plan for Regional Board approval. Any such individual or group monitoring plan is due no later than November 30, 2007 and shall be implemented upon Regional Board approval at a duly noticed public meeting. An annual report of data collected pursuant to approved individual/group plan(s) shall be submitted by February 15 of each year. The report shall summarize the data and evaluate compliance with the TMDL/WLAs/LAs.

Table 6-1a-g
Big Bear Lake Watershed
Minimum Required Sampling Station Locations

Station Number	Station Description
MWDC2	Bear Creek Outlet
MWDC3	Grout Creek at Hwy 38
MWDC4	Rathbun Creek at Sandalwood Ave.
MWDC5	Summit Creek at Swan Dr.
MWDC6	Rathbun Creek below the Zoo
MWDC8	Knickerbocker Creek at Hwy 18
MWDC13	Boulder Creek at Hwy 18

Note: Bear Creek outlet to be sampled monthly from March –November. At a minimum, samples shall be analyzed at the frequencies specified in Table 5-9a-h:

Table 6-1a-h
Big Bear Lake Watershed
Sampling Frequency

Flow type	Months monitoring is required	Frequency
Baseflow	January 1 – December 31	Once/month when baseflow is present;
Snowmelt	January 1 – May 31[1]	Varied -See note 2 below
Storm events	January 1 – December 31	3 storms per year[3]

[1] Sampling to begin after the first substantial snowfall resulting in an accumulation of 1.0 inch or more of snow

[2] Samples to be collected daily for the first three days of the snowmelt period. If ambient air temperatures remain above freezing after three days have passed, snowmelt sampling will then be performed once a week for the following three weeks or until the snowmelt period ceases. Snowmelt cessation will be determined by one of the following: a) ambient air temperatures drop below freezing during most of the day; or b) a storm/rain precipitation event occurs after the snowmelt event was initiated. Beginning March 15th of each year, snowmelt flows will most likely be continuous since ambient air temperatures will usually remain above freezing. From March 15th through May 31 of each year, snowmelt sampling events will be conducted daily for the first two days of a snowmelt event and then once a week thereafter until the spring runoff period has ended or the tributary station location shows no signs of daily flows for one week. Flow status will be evaluated in the afternoon, when ambient air temperatures are highest and flow potential is greatest.

[3] Two storm events to be sampled during October – March; 1 storm event to be sampled during April – September. For each storm event, eight samples across the hydrograph are to be collected.

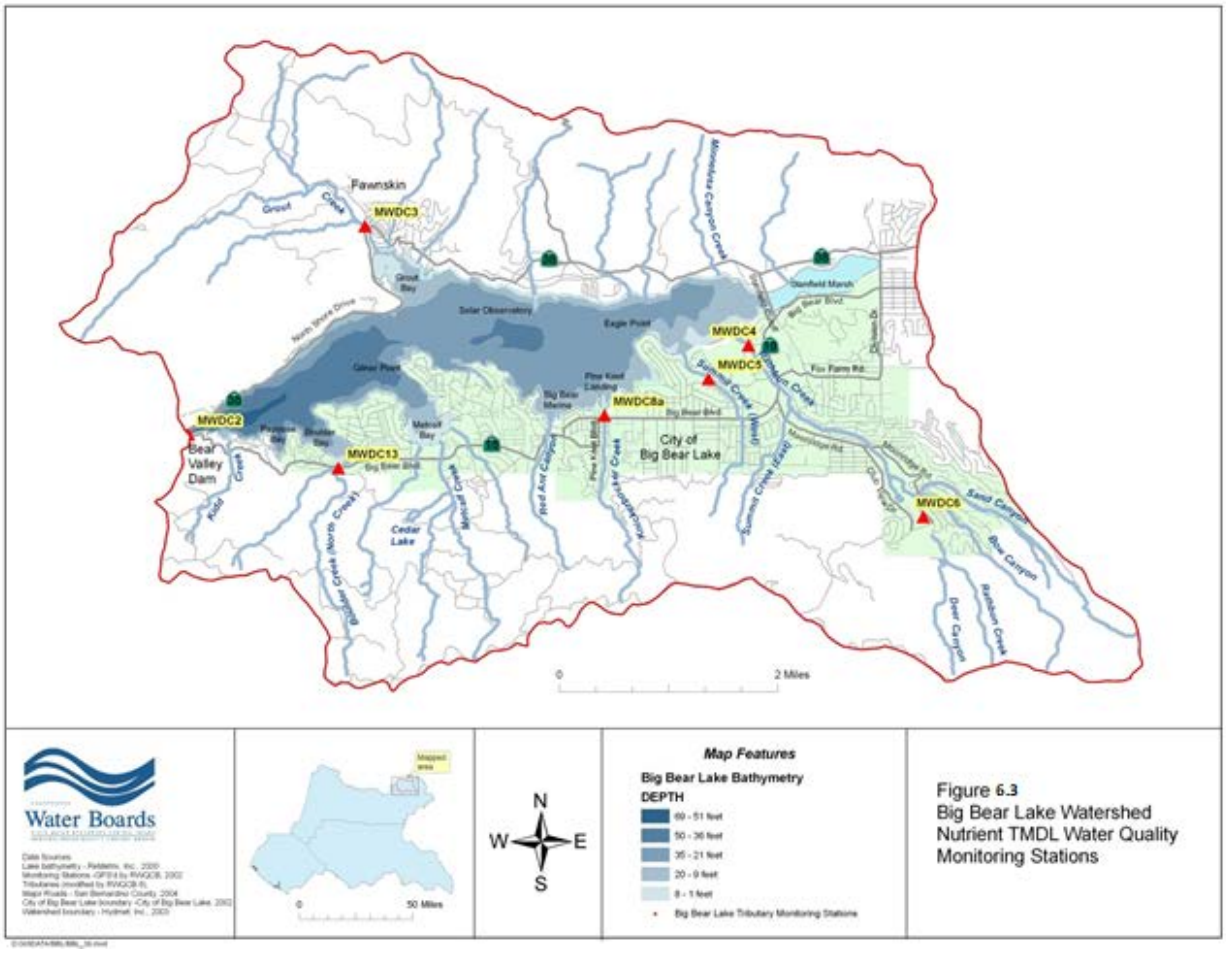


Figure 6-3 Big Bear Lake Watershed Nutrient TMDL Water Quality Stations

4.2 Big Bear Lake: In-Lake Nutrient Monitoring Program

No later than November 30, 2007, the US Forest Service, the State of California, Department of Transportation (Caltrans), the County of San Bernardino, San Bernardino County Flood Control District, the City of Big Bear Lake, and Big Bear Mountain Resorts shall, as a group, submit to the Regional Board for approval a proposed Big Bear Lake nutrient monitoring program that will provide data necessary to review and update the Big Bear Lake Nutrient TMDL, and to develop TMDLs for other hydrological conditions. Data to be collected and analyzed shall address, at a minimum: (1) determination of compliance with phosphorus and chlorophyll *a* numeric targets; (2) determination of compliance with the existing total inorganic nitrogen (TIN) objective; and (3) refinement of the in-lake model for the purposes of TMDL review and development.

At a minimum, the proposed plan shall include the collection of samples at the stations specified in Table 6-1a-i and shown in Figure 6-4, at the specified frequency indicated in Table 6-1a-i. Modifications to the required sampling stations, sampling

frequencies and constituents to be monitored (see below) will be considered upon request by the stakeholders, accompanied by a report that describes the rationale for the proposed changes and identifies recommended alternatives. With the exception of hardness, alkalinity, total organic carbon (TOC), dissolved organic carbon (DOC), and chlorophyll *a,* each sample to be analyzed shall be collected as a photic zone composite (from the surface to 2 times the secchi depth) and as a bottom discrete (0.5 meters off the surface bottom) sample. Hardness, alkalinity, TOC, DOC, and chlorophyll *a* shall be collected as photic zone composites. Dissolved oxygen, water temperature, turbidity, specific conductance, and pH shall be measured at 1-meter intervals from the surface to 0.5 meters from the bottom using a multi-parameter water quality meter. Water clarity shall be measured with a secchi disk.

At a minimum, in-lake samples must be analyzed for the following constituents:

- Specific conductance
- Water temperature
- Chlorophyll *a*
- Total nitrogen
- Nitrate +nitrite nitrogen
- Total phosphorus
- Total hardness
- Total dissolved phosphorus
- Dissolved organic carbon(DOC)
- Total dissolved nitrogen
- Dissolved oxygen
- Water clarity (secchi depth)
- Ammonia nitrogen
- Alkalinity
- Turbidity
- Ortho-phosphate (SRP)
- Total suspended solids (TSS)
- pH
- Total dissolved solids (TDS)
- Total organic carbon (TOC)

The monitoring plan shall be implemented upon Regional Board approval at a duly noticed public meeting. An annual report summarizing the data collected for the year and evaluating compliance with the TMDL/WLAs/LAs and numeric targets shall be submitted by February 15 of each year.

Table 6-1a-i
Big Bear Lake Required Sampling Station Locations

Station Number	Station Description
MWDL1	Big Bear Lake – Dam
MWDL2	Big Bear Lake – Gilner Point
MWDL6	Big Bear Lake – Mid Lake Middle
MWDL9	Big Bear Lake – Stanfield Middle

Frequency of sampling at all stations: for all constituents except TOC and DOC, monthly from March – November; bi-weekly (i.e., every other week) from June 1 through October 31. TOC and DOC to be monitored four times per year (quarterly) from January through December.

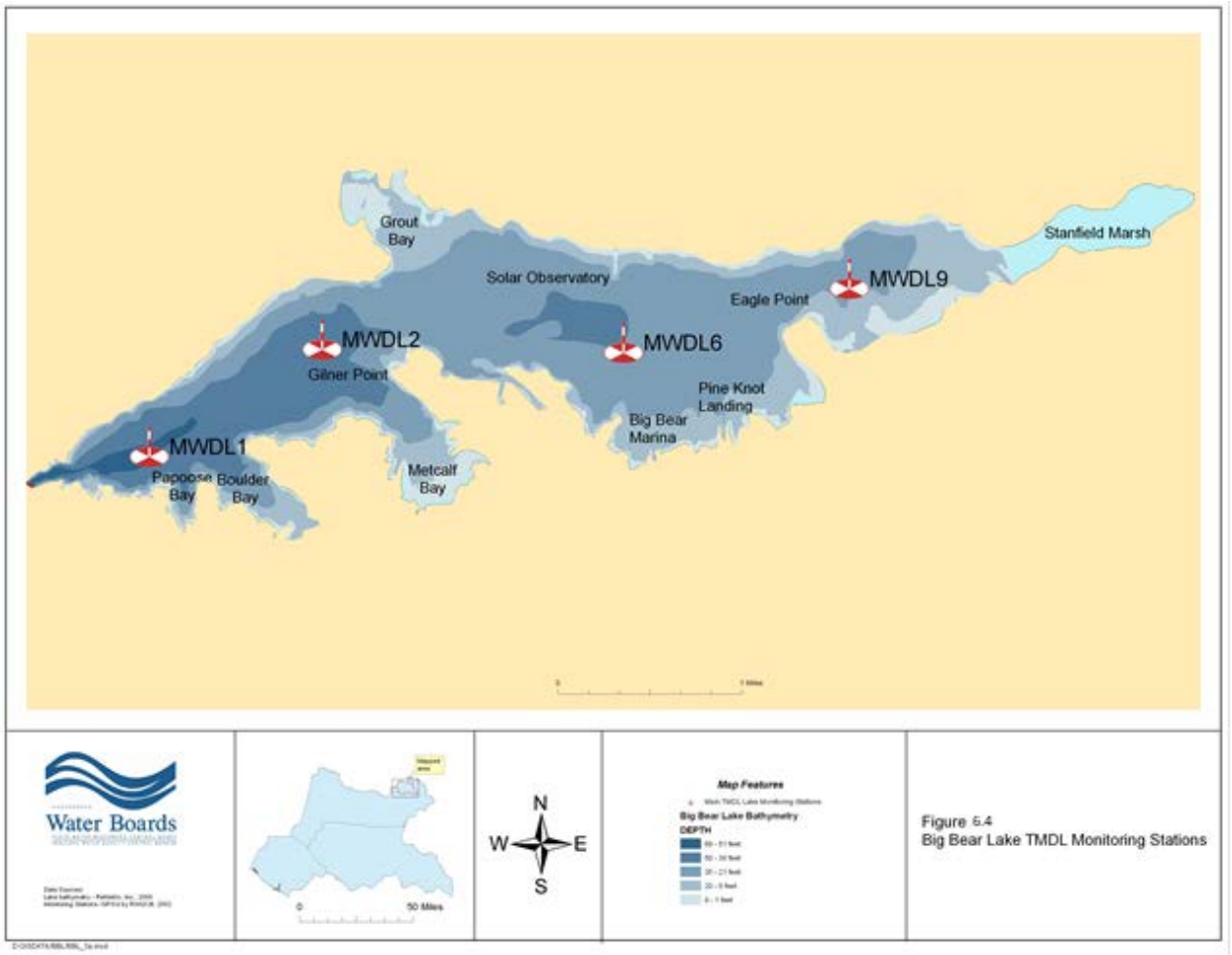


Figure 6-4 Big Bear Lake TMDL Monitoring Stations

In lieu of this coordinated monitoring plan, one or more of the parties identified above may submit a proposed individual or group monitoring plan for Regional

Board approval. Any such individual or group monitoring plan is due no later than November 30, 2007 and shall be implemented upon Regional Board approval at a duly noticed public meeting. An annual report of data collected pursuant to approved individual/group plan(s), shall be submitted by February 15 of each year. The report shall summarize the data and evaluate compliance with the TMDL/WLAs/LAs and numeric targets.

Task 5: Atmospheric Deposition Determination

No later than August 31, 2008, the Regional Board, in coordination with local stakeholders, the South Coast Air Quality Management District and the California Air Resources Board, shall develop a plan and schedule for quantifying atmospheric deposition of nutrients in the Big Bear Lake watershed.

Task 6: Big Bear Lake-Lake Management Plan

No later than August 31, 2008, the US Forest Service, the State of California, Department of Transportation (Caltrans), the County of San Bernardino, San Bernardino County Flood Control District, the City of Big Bear Lake, and Big Bear Mountain Resorts, shall, as a group, submit to the Regional Board for approval a proposed Lake Management Plan for Big Bear Lake. The purpose of the plan is to identify a coordinated and comprehensive strategy for management of the lake and surrounding watershed to address restoration and protection of the lake's beneficial uses. The plan shall include the following:

A) A proposed plan and schedule for updating the existing Big Bear Lake watershed nutrient model and the Big Bear Lake in-lake nutrient model. The plan and schedule must take into consideration additional data and information that are or will be generated from the required TMDL monitoring programs (Tasks 4.1 and 4.2, above).

B) A proposed plan and schedule for in-lake sediment nutrient reduction for Big Bear Lake. The proposed plan shall include an evaluation of the applicability of various in-lake treatment technologies to support development of a long-term strategy for control of nutrients from the sediment. The submittal shall also contain a proposed sediment nutrient monitoring program to evaluate the effectiveness of any strategies implemented.

C) The proposed plan shall include an evaluation of the applicability of various in-lake treatment technologies to control noxious and nuisance aquatic plants. The plan shall also include a description of the monitoring conducted and proposed to track aquatic plant diversity, coverage, and biomass. Data to be collected and analyzed shall address, at a minimum, determination of compliance with the numeric targets for macrophyte coverage and percentage of nuisance aquatic vascular plant species (see 1.A., above).

In addition, at a minimum, the proposed plan shall also address the following:

- The plan shall be based on identified and acceptable goals for lake capacity, biological resources and recreational opportunities. Acceptable foals shall be identified in coordination with the Regional Board and other responsible agencies, including the California Department of Fish and Game and the U.S. Fish and Wildlife Services.

- The plan shall include a proposed plan and schedule for the development of biocriteria for Big Bear Lake (This is intended to complement Regional Board efforts to develop biocriteria and to signal the parties' commitment to participate substantively.)

- The plan must identify a scientifically defensible methodology for measuring changes in the capacity of the lake.

- The prosed plan shall identify recommended short and long-term strategies for control and management of sediment and dissolved and particulate nutrient inputs to the lake.

- The plan shall also integrate the beneficial use survey information required to be developed pursuant to the Regional Board's March 3, 2005, Clean Water Act Section 401 Water Quality Standards Certification for Big Bear Lake Nutrient/Sediment Remediation Project, City of Big Bear, County of San Bernardino, California. The purpose of the beneficial use survey is to correlate beneficial uses of the lake with lake bottom contours. The survey is required to be conducted throughout the lake. The survey will determine the location and the quality of beneficial uses of the lake and the contours of the lake bottom where these uses occur. The survey is expected to be used in regulating future lake dredge projects to maximize the restoration and protection of the lake's beneficial uses.

The Big Bear Lake – Lake Management Plan shall be implemented upon Regional Board approval at a duly noticed public meeting. Once approved, the plan shall be reviewed and revised as necessary at least once every three years. The review and revision shall take into account assessments of the efficacy of control/management strategies implemented and relevant requirements of new or revised TMDLs for Big Bear Lake and its watershed. An annual report summarizing the data collected for the year and evaluating compliance with the TMDL/WLAs/LAs and numeric targets shall be submitted by February 15 of each year.

In lieu of this coordinated plan, one or more of the parties identified above may submit a proposed individual or group Big Bear Lake – Lake Management Plan and schedule for approval by the Regional Board. Any such individual or group plan must conform to the requirements specified above and is due no later than August 31, 2008. An individual

or group plan shall be implemented upon Regional Board approval at a duly noticed public meeting. An annual report summarizing the data collected for the year and evaluating compliance with the TMDL/WLAs/LAs and numeric targets shall be submitted by February 15 of each year.

Task 7: Review and Revision of Big Bear Lake Water Quality Standards

By December 31, 2015, the Regional Board shall:

7.1 Review/revise as necessary the total inorganic nitrogen and total phosphorus numeric water quality objectives for Big Bear Lake. The Regional Board shall also consider the development of narrative or numeric objectives for other indicators of impairment (e.g., chlorophyll *a*, macrophyte coverage and species composition), in lieu of or in addition to review/revision of the numeric objectives for phosphorus and nitrogen.

7.2 Develop biocriteria for Big Bear Lake.

7.3 Develop a definition for natural background sources of nutrients (and other constituents) to Big Bear Lake and its tributaries.

Given budgetary constraints, completion of these tasks are likely to require substantive contributions from interested parties.

Task 8: Review of Big Bear Lake Tributary Data

No later than December 2008, the Regional Board shall review data collected on Rathbun Creek, Summit Creek and Grout Creek to determine whether beneficial uses of these tributaries are impaired by nutrients. If the Creeks are found to be impaired by nutrients, the Regional Board shall develop a TMDL development project plan and schedule. If these tributaries are found not to be impaired by nutrients, Regional Board shall schedule the delisting of the tributaries from the 303(d) list of impaired waters at the earliest opportunity.

Task 9: Development of TMDLs for Wet and/or Average Hydrological Conditions

No later than December 31, 2012, the Regional Board shall utilize additional water quality data and information collected pursuant to monitoring program requirements (Tasks 4 and 5) and model updates (Task 6A) to develop proposed nutrient TMDLs for Big Bear Lake for wet and/or average hydrological conditions. Completion of this task is contingent on the collection of requisite data for wet and/or average hydrological conditions.

Task 10: Review/Revision of the Big Bear Lake Nutrient TMDL for Dry Hydrological Conditions (TMDL "Re-opener")

The basis for the TMDL for Dry Hydrological Conditions, the implementation plan and

schedule will be re-evaluated at least once every three years[70] to determine the need for modifying the allocations, numeric targets and TMDL. Regional Board staff will continue to review all data and information generated pursuant to the TMDL requirements on an ongoing basis. Based on results generated through the monitoring programs, special studies and/or modeling analyses, changes to the TMDL may be warranted. Such changes will be considered through the Basin Plan Amendment process.
The Regional Board is committed to the review of this TMDL every three years, or more frequently if warranted by these or other studies.

(End of Amendment adopted under Resolution No. R8-2006-0023)

Lake Elsinore/San Jacinto River Watershed (The following was added under Resolution No. R8-2004-0037)

The Lake Elsinore/San Jacinto River Watershed is located in Riverside County and includes the following major waterbodies: Lake Hemet, San Jacinto River, Salt Creek, Canyon Lake and Lake Elsinore. The total drainage area of the San Jacinto River watershed is approximately 782 square miles. Over 90 percent of the watershed (735 square miles) drains into Canyon Lake. Lake Elsinore is the terminus of the San Jacinto River watershed. The local tributary area to Lake Elsinore, consisting of drainage from the Santa Ana Mountains and the City of Lake Elsinore, is 47 square miles.

Land use in the watershed includes open/forested, agricultural (including concentrated animal feeding operations such as dairies and chicken ranches, and irrigated cropland), and urban uses, including residential, industrial and commercial. Vacant/open space is being converted to residential uses as the population in the area expands. The municipalities in the watershed include the cities of San Jacinto, Hemet, Perris, Canyon Lake, Lake Elsinore and portions of Moreno Valley and Beaumont.

1. Lake Elsinore and Canyon Lake Nutrient Total Maximum Daily Load (TMDL)

Lake Elsinore and Canyon Lake are not attaining water quality standards due to excessive nutrients (nitrogen and phosphorus). Reports prepared by Regional Board staff describe the impact nutrient discharges have on the beneficial uses of Lake Elsinore and Canyon Lake [Ref. #27,28] Lake Elsinore was formed in a geologically active graben area and has been in existence for thousands of years. Due to the Mediterranean climate and watershed hydrology, fluctuations in the level of Lake Elsinore have been extreme, with alternate periods of a dry lake bed and extreme flooding. These drought/flood cycles have a great impact on lake water quality. Fish kills and excessive algae blooms have been reported in Lake Elsinore since the early 20th century. As a result, in 1994, the Regional Board placed Lake Elsinore on the 303(d) list of impaired waters due to excessive levels of nutrients and organic enrichment/low dissolved oxygen.

[70] The three-year schedule is tied to the 3-year triennial review schedule.

Canyon Lake, located approximately 5 miles upstream of Lake Elsinore, was formed by the construction of Railroad Canyon Dam in 1928. Approximately 735 square miles of the 782-square mile San Jacinto River watershed drain to Canyon Lake. During most years, runoff from the watershed terminates at Canyon Lake without reaching Lake Elsinore, resulting in the buildup of nutrients in Canyon Lake. While Canyon Lake does not have as severe an eutrophication problem as Lake Elsinore, there have been periods of algal blooms and anecdotal reports of occasional fish kills. Accordingly, in 1998, the Regional Board added Canyon Lake to the 303(d) list of impaired waters due to excessive levels of nutrients.

A TMDL technical report prepared by Regional Board staff describes the nutrient related problems in Canyon Lake and Lake Elsinore in greater detail and discusses the technical basis for the TMDLs that follow [Ref. # 29].

A. Lake Elsinore and Canyon Lake Nutrient TMDL Numeric Targets

Numeric targets for Lake Elsinore and Canyon Lake are based on reference conditions when beneficial uses in the lakes were not significantly impacted by nutrients. Table 6-1n shows both “causal” and “response” interim and final numeric targets for both lakes. Causal targets are those for phosphorus and nitrogen. Phosphorus and nitrogen are the primary limiting nutrients in Lake Elsinore and Canyon Lake, respectively. However, under certain conditions, nitrogen may be limiting in Lake Elsinore and phosphorus may be limiting in Canyon Lake. Targets for both nutrients are therefore necessary. Reduction in nitrogen inputs will be necessary over the long-term and only final targets are specified. Response targets include chlorophyll *a* and dissolved oxygen. These targets are specified to assess water quality improvements in the lakes. Finally, ammonia targets are specified to prevent un-ionized ammonia toxicity to aquatic life.

Table 6-1n Lake Elsinore and Canyon Lake Nutrient TMDL Numeric Targets*

Indicator	Lake Elsinore	Canyon Lake
Total P concentration (Final)	Annual average no greater than 0.1 mg/L; to be attained no later than 2020	Annual average no greater than 0.1 mg/L; to be attained no later than 2020
Total N concentration (Final)	Annual average no greater than 0.75 mg/L; to be attained no later than 2020	Annual average no greater than 0.75 mg/L; to be attained no later than 2020
Ammonia nitrogen concentration (Final) [Ref. #4]	Calculated concentrations to be attained no later than 2020 Acute: 1-hour average concentration of total ammonia nitrogen (mg/L) not to exceed, more than once every three years on the average, the CMC (acute criteria), where $CMC = 0.411/(1+10^{7.204-pH}) + 58.4/(1+10^{pH-7.204})$ Chronic: thirty-day average concentration of total ammonia nitrogen (mg/L) not to exceed, more than once every three years on the average, the CCC (chronic criteria) $CCC = (0.0577/(1+10^{7.688-pH}) + 2.487/(1+10^{pH-7.688})) * \min(2.85,1.45*10^{0.028(25-T)})$	Calculated concentrations to be attained no later than 2020 Acute: 1-hour average concentration of total ammonia nitrogen (mg/L) not to exceed, more than once every three years on the average, the CMC (acute criteria), where $CMC = 0.411/(1+10^{7.204-pH}) + 58.4/(1+10^{pH-7.204})$ Chronic: thirty-day average concentration of total ammonia nitrogen (mg/L) not to exceed, more than once every three years on the average, the CCC (chronic criteria) $CCC = (0.0577/(1+10^{7.688-pH}) + 2.487/(1+10^{pH-7.688})) * \min(2.85,1.45*10^{0.028(25-T)})$
Chlorophyll *a* concentration (Interim)	Summer average no greater than 40 ug/L; to be attained no later than 2015	Annual average no greater than 40 ug/L; to be attained no later than 2015
Chlorophyll *a* concentration (Final)	Summer average no greater than 25 ug/L; to be attained no later than 2020	Annual average no greater than 25 ug/L; to be attained no later than 2020
Dissolved oxygen concentration (Interim)	Depth average no less than 5 mg/L; to be attained no later than 2015	Minimum of 5 mg/L above thermocline; to be attained no later than 2015
Dissolved oxygen concentration (Final)	No less than 5 mg/L 1 meter above lake bottom; to be attained no later than 2020	Daily average in hypolimnion no less than 5 mg/L; to be attained no later than 2020.

* compliance with targets to be achieved as soon as possible, but no later than the date specified

B. Lake Elsinore and Canyon Lake Nutrient TMDLs, Wasteload Allocations, Load Allocations and Compliance Dates

As discussed in the technical TMDL report, nutrient loading to Canyon Lake and Lake Elsinore varies depending on the hydrologic conditions that occur in the San Jacinto watershed. As part of the TMDL analysis and development, three hydrologic scenarios and the relative frequency of each of these conditions (based upon an 87-year record of flow data at the USGS Gauging station downstream of Canyon Lake), were identified as shown in Table 6-1o. The resulting TMDLs, wasteload allocations and load allocations

are based on 10-year running flow weighted average nutrient loads, taking into account the frequency of the three hydrologic conditions and the nutrient loads associated with each of them. Phosphorus and nitrogen TMDLs for Canyon Lake and Lake Elsinore are shown in Table 6-1p. The TMDLs, expressed as 10–year running averages, will implement the numeric targets and thereby attain water quality standards. Phosphorus and nitrogen wasteload allocations for point source discharges and load allocations for nonpoint source discharges, also expressed as 10-year running averages, are shown in Tables 6-1q and 6-1r. No TMDLs, wasteload allocations or load allocations are specified for chlorophyll a, dissolved oxygen or ammonia. Chlorophyll a and dissolved oxygen targets are intended to serve as measures of the effectiveness of phosphorus and nitrogen reductions implemented to meet TMDL requirements. Until ammonia transformations, and nitrogen dynamics in general, are better understood, no ammonia TMDLs, wasteload allocations or load allocations are specified.

Table 6-1o
San Jacinto River Hydrologic Conditions with Relative Flow Frequency at the USGS Gauging Station Downstream of Canyon Lake (Station No. 1170500)

Hydrologic Condition	Representative Water Year	Years of Hydrologic Condition	Relative Frequency (%)	Description
Wet	1998	14	16	Both Canyon Lake and Mystic Lake overflow; flow at the USGS gauging station 11070500 17,000 AF or greater
Moderate	1994	36	41	No Mystic Lake overflow; Canyon Lake overflowed; flow at the USGS gauging station 11070500 less than 17,000 AF and greater than 2,485 AF
Dry	2000	37	43	No overflows from Mystic Lake or Canyon Lake; flow at the USGS gauging station 11070500 371 AF or less

Table 6-1p

Nutrient TMDLs and Compliance Dates for Lake Elsinore and Canyon Lake

TMDL	Final Total Phosphorus TMDL (kg/yr)[a, b]	Final Total Nitrogen TMDL (kg/yr) [a, b]
Canyon Lake	8,691	37,735
Lake Elsinore	28,584	239,025

[a] Final compliance to be achieved as soon as possible, but no later than December 31, 2020.
[b] TMDL specified as 10-year running average.

Table 6-1q

Canyon Lake
Nitrogen and Phosphorus Wasteload and Load Allocations[a]

Canyon Lake Nutrient TMDL	Final Total Phosphorus Load Allocation (kg/yr)[b, c]	Final Total Nitrogen Load Allocation (kg/yr) [b, c]
TMDL	**8,691**	**37,735**
WLA	486	6,248
Supplemental water	48	366
Urban	306	3,974
CAFO	132	1,908
LA	**8,205**	**31,487**
Internal Sediment	4,625	13,549
Atmospheric Deposition	221	1,918
Agriculture	1,183	7,583
Open/Forest	2,037	3,587
Septic systems	139	4,850

[a] The TMDL allocations for Canyon Lake apply to those land uses located upstream of Canyon Lake.
[b] Final allocation compliance to be achieved as soon as possible, but no later than December 31, 2020.
[c] TMDL and allocations specified as 10-year running average.

Table 6-1r

Lake Elsinore
Nitrogen and Phosphorus Wasteload and Load Allocations[a]

Lake Elsinore Nutrient TMDL	Final Total Phosphorus Load Allocation (kg/yr)[b, c]	Final Total Nitrogen Load Allocation (kg/yr)[c, d]
TMDL	**28,584**	**239,025**
WLA	3,845	7,791
Supplemental water [d]	3,721	7,442
Urban	124	349
CAFO	0	0
LA	**21,969**	**210,461**
Internal Sediment	21,554	197,370
Atmospheric Deposition	108	11,702
Agriculture	60	213
Open/Forest	178	567
Septic systems	69	608
CL Watershed [e]	2,770	20,774

[a] The Lake Elsinore TMDL allocations for urban, agriculture open/forest, septic systems and CAFOs only apply to those land uses located downstream of Canyon Lake.
[b] Final allocation compliance to be achieved as soon as possible, but no later than December 31, 2020.
[c] TMDL and allocations specified as 10-year running average.
[d] WLA for supplemental water should met as soon as possible as a 5 year running average.
[e] Allocation for Canyon Lake overflows

The TMDL distributes the portions of the waterbody's assimilative capacity to various pollution sources so that the waterbody achieves its water quality standards. The Regional Board supports the trading of pollutant allocations among sources, where appropriate. Trading can take place between point/point, point/nonpoint, and nonpoint/nonpoint pollutant sources. Optimizing alternative point and nonpoint control strategies through allocation tradeoffs may be a cost-effective way to achieve pollution reduction benefits. (See Section E. TMDL Implementation, Task 11, below).

C. Margin of Safety

The Canyon Lake and Lake Elsinore Nutrient TMDLs include an implicit margin of safety (MOS) as follows:

- the derivation of numeric targets based on the 25th percentile of data for Lake Elsinore; Canyon Lake numeric targets to be consistent with the Lake Elsinore targets;

- the use of multiple numeric targets to measure attainment of beneficial uses and thereby assure TMDL efficacy;

- the use of conservative literature values in the absence of site-specific data for source loading rates in the watershed nutrient model;

- the use of conservative assumptions in modeling the response of Lake Elsinore and Canyon Lake to nutrient loads; and

- requiring load reductions to be accomplished during hydrological conditions when model results indicate, in some instances, that theoretical loads could be higher.

D. Seasonal Variations/Critical Conditions

The Canyon Lake and Lake Elsinore Nutrient TMDLs account for seasonal and annual variations in external and internal nutrient loading and associated impacts on beneficial uses by the use of a 10-year running average allocation approach. This 10-year running average approach addresses variation in hydrologic conditions (wet, moderate and dry) that can dramatically affect both nutrient loading and lake response.

Compliance with numeric targets will ensure water quality improvements that prevent excessive algae blooms and fish kills, particularly during the critical summer period when these problems are most likely to occur.

E. TMDL Implementation

Typically, under dry and moderate conditions, the internal nutrient loading drives the nutrient dynamics in both Canyon Lake and Lake Elsinore. However, it is the extreme (albeit infrequent) loading that occurs during wet conditions that provides the nutrients to the lakes that remain in the lakes as internal nutrient sources in subsequent years. Given the complexity of the San Jacinto River watershed hydrology, control of nutrients input to the lakes is needed for all hydrologic conditions. Collection of additional monitoring data is critical to developing long-term solutions for nutrient control. With that in mind, the submittal of plans and schedules to implement the TMDLs should take into consideration the need to develop and implement effective short-term solutions, as well as allow for the development of long-term solutions once additional data have been generated.

Implementation of tasks and schedules as specified in Table 6-1s is expected to achieve compliance with water quality standards. Each of these tasks is described below.

Table 6-1s
Lake Elsinore and Canyon Lake Nutrient TMDL Implementation
Plan/Schedule Report Due Dates

Task	Description	Compliance Date-As soon As Possible but No Later Than
TMDL Phase 1		
1	Establish New Waste Discharge Requirements	March 31, 2006
2	Revise Existing Waste Discharge Permits	March 31, 2006
3	Identify Agricultural Operators	October 31, 2005
4	Nutrient Water Quality Monitoring Program 4.1 Watershed-wide Nutrient Monitoring Plan(s) 4.2 Lake Elsinore Nutrient Monitoring Plan(s) 4.3 Canyon Lake Nutrient Monitoring Plan(s)	• Initial plan/schedule due December 31, 2005 • Annual reports due August 15 • Revised plan/schedule due December 31, 2006
5	Agricultural Discharges – Nutrient Management Plan	Plan/schedule due September 30, 2007
6	On-site Disposal Systems (Septic Systems) Management Plan	Dependent on State Board approval of relevant regulations (see text).
7	Urban Discharges 7.1 Revision of Drainage Area Management Plan (DAMP) 7.2 Revision of the Water Quality Management Plan (WQMP) 7.3 Update of the Caltrans Stormwater Management Plan and Regional Plan 7.4 Update of US Air Force, March Air Reserve Base SWPPP	Plan/schedule due: 7.1 August 1, 2006 7.2 August 1, 2006 7.3 April 1, 2006 7.4 Dependent on Task 3 results. See text.
8	Forest Area – Review/Revision of Forest Service Management Plans	Plan/schedule due September 30, 2007
9	Lake Elsinore In-Lake Sediment Nutrient Reduction Plan	Plan/schedule due March 31, 2007
10	Canyon Lake In-Lake Sediment Treatment Evaluation	Plan/schedule due March 31, 2007
11	Watershed and Canyon Lake and Lake Elsinore In-Lake Model Updates	Plan/schedule due March 31, 2007
12	Pollutant Trading Plan	**Plan/schedule due September 30, 2007**
13	Review and Revise Nutrient Water Quality Objectives	**December 31, 2009**
14	Review of TMDL/WLA/LA	Once every 3 years to coincide with the Regional Board's triennial review

Task 1: Establish New Waste Discharge Requirements

On or before March 31, 2006, the Regional Board shall issue new waste discharge requirements (NPDES permit) to Elsinore Valley Municipal Water District for supplemental water discharges to Canyon Lake that incorporate the appropriate interim and final wasteload allocations, compliance schedule and monitoring program requirements.

Other proposed nutrient discharges will be addressed and permitted as appropriate.

Task 2: Review and/or Revise Existing Waste Discharge Requirements

There are five Waste Discharge Requirements (WDRs) issued by the Regional Board regulating discharge of various types of wastes in the San Jacinto watershed. On or before March 31, 2006, each of these WDRs shall be reviewed and revised as necessary to implement the Lake Elsinore and Canyon Lake Nutrient TMDLs, including the appropriate nitrogen and phosphorus interim and final wasteload allocations, compliance schedules and/or monitoring program requirements.

2.1 Waste Discharge Requirements for the Riverside County Flood Control and Water Conservation District, the County of Riverside and the Incorporated Cities of Riverside County within the Santa Ana Region, Areawide Urban Runoff, NPDES No. CAS 618033 (Regional Board Order No. R8-2002-0011). The current Order has provisions to address TMDL issues (see Task 7.1, below). In light of these provisions, revision of the Order may not be necessary to address TMDL requirements.

2.2 Watershed-Wide Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with New Developments in the San Jacinto Watershed, Order No. 01-34, NPDES No. CAG 618005. It is expected that this Order will be rescinded once the Regional Board/Executive Officer approves a Water Quality Management WQMP) under Order No. R8-2002-0011 (see 2.1, above and Task 7.2, below)

2.3 General Waste Discharge Requirements for Concentrated Animal Feeding Operations (Dairies and Related Facilities) within the Santa Ana Region, NPDES No. CAG018001 (Regional Board Order No. 99-11).

2.4 Waste Discharge and Producer/User Reclamation Requirements for the Elsinore Valley Municipal Water District, Regional Water Reclamation Facility Riverside County, Order No. 00-1, NPDES No. CA8000027. Revised permit specifications will take into consideration the Lake Elsinore Recycled Water Pilot Project findings.

2.5 Waste Discharge Requirements for Eastern Municipal Water District, Regional Water Reclamation System, Riverside County, Order No. 99-5, NPDES No. CA8000188[1]. Revised permit specifications will take into consideration the Lake Elsinore Recycled Water Pilot Project findings.

2.6 Waste Discharge Requirements for US Air Force, March Air Reserve Base, Storm Water Runoff, Riverside County, Order No. R8-2004-0033, NPDES CA 00111007.

Task 3: Identify Agricultural Operators

On or before October 31, 2005, the Regional Board shall develop a list of all known agricultural operators in the San Jacinto watershed that will be responsible for implementing requirements of this TMDL. The Regional Board will send a notice to these operators informing them of their TMDL responsibility and alerting them to potential regulatory consequences of failure to comply.

Task 4: Monitoring

No later than December 31, 2005, the US Forest Service, the US Air Force (March Air Reserve Base), March Joint Powers Authority, California Department of Transportation (Caltrans), California Department of Fish and Game, the County of Riverside, the cities of Lake Elsinore, Canyon Lake, Hemet, San Jacinto, Perris, Moreno Valley, Murrieta, Riverside and Beaumont, Eastern Municipal Water District[1], Elsinore Valley Municipal Water District, concentrated animal feeding operators and other agricultural operators within the San Jacinto watershed shall, as a group, submit to the Regional Board for approval monitoring program as required by Tasks 4.1, 4.2 and 4.3.

If modifications to the monitoring program are warranted, no later than December 31, 2006, the US Forest Service, the US Air Force (March Air Reserve Base), March Joint Powers Authority, California Department of Transportation (Caltrans), California Department of Fish and Game, the County of Riverside, the cities of Lake Elsinore, Canyon Lake, Hemet, San Jacinto, Perris, Moreno Valley, Murrieta, Riverside and Beaumont, Eastern Municipal Water District[71], Elsinore Valley Municipal Water District, concentrated animal feeding operators and other agricultural operators within the San Jacinto watershed shall, as a group, submit to the Regional Board for approval a revised proposed Watershed nutrient monitoring program (Task 4.1), Lake Elsinore monitoring program (Task 4.2) and Canyon Lake nutrient monitoring program (Task 4.3).

In lieu of this coordinated monitoring plan, one or more of the parties identified above may submit a proposed individual or group monitoring plan for Regional Board approval for the monitoring program specified in tasks 4.1, 4.2 and 4.3. Any such individual or

[71] Contingent on Eastern Municipal Water District discharge of recycled water to Lake Elsinore.

group monitoring plan is due no later than December 31, 2005. If needed, any individual or group revised monitoring plan is due no later than December 31, 2006.

4.1 Watershed-wide Nutrient Water Quality Monitoring Program

The US Forest Service, the US Air Force (March Air Reserve Base), March Joint Powers Authority, California Department of Transportation (Caltrans), California Department of Fish and Game, the County of Riverside, the cities of Lake Elsinore, Canyon Lake, Hemet, San Jacinto, Perris, Moreno Valley, Murrieta, Riverside and Beaumont, Eastern Municipal Water District[1], Elsinore Valley Municipal Water District, concentrated animal feeding operators and other agricultural operators within the San Jacinto watershed shall, as a group, submit to the Regional Board for approval a proposed watershed-wide nutrient monitoring program that will provide data necessary to review and update the Lake Elsinore and Canyon Lake Nutrient TMDL. Data to be collected and analyzed shall address, at a minimum: (1) determination of compliance with interim and/or final nitrogen and phosphorus allocations; and (2) determination of compliance with the nitrogen and phosphorus TMDL, including the WLAs and LAs.

At a minimum, the stations specified in Table 6-1t and shown in Figure 6-5, at the frequency specified in Table 6-1t, shall be considered for inclusion in the proposed monitoring plan. If one or more of these monitoring stations are not included, rationale shall be provided and proposed alternative monitoring locations shall be identified in the proposed monitoring plan. In addition to water quality samples, at a minimum, daily discharge (stream flow) determinations shall be made at all stations shown in Table 6-1t.

At a minimum, samples shall be analyzed for the following constituents:

- organic nitrogen
- nitrite nitrogen
- total phosphorus
- total hardness
- total suspended solids (TSS)
- biological oxygen demand (BOD)
- ammonia nitrogen
- nitrate nitrogen
- ortho-phosphate (SRP)
- total dissolved solids (TDS)
- turbidity
- chemical oxygen demand (COD)
- pH
- water temperature

The proposed monitoring plan shall be implemented upon Regional Board approval at a duly noticed public meeting. An annual report summarizing the data collected for the year and evaluating compliance with the WLAs/LAs shall be submitted by August 15 of each year.

In lieu of this coordinated monitoring plan, one or more of the parties identified above may submit a proposed individual or group monitoring plan for Regional Board approval. This individual monitoring plan shall be implemented upon Regional

Board approval at a duly noticed public meeting. An annual report of data collected pursuant to approved individual/group plan(s) shall be submitted by August 15 of each year. The report shall summarize the data and evaluate compliance with the WLAs/LAs.

It may be that implementation of these monitoring requirements will be required through the issuance of Water Code Section 13267 letters to the affected parties. The monitoring plan(s) will be considered by the Regional Board and implemented upon the Regional Board's approval.

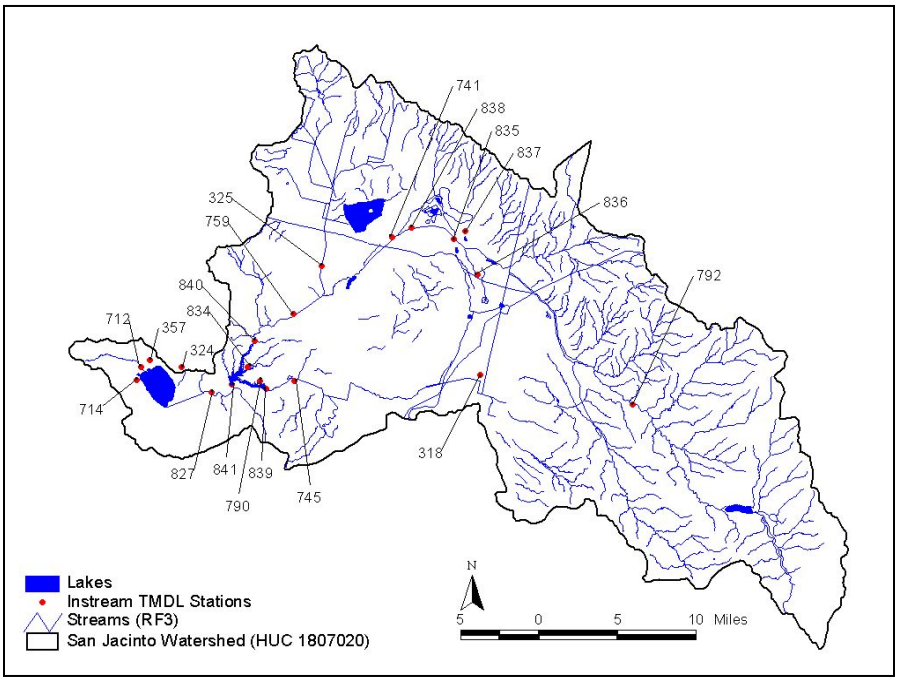


Figure 6-5 – San Jacinto River Watershed Nutrient TMDL Water Quality Stations Locations

Table 6-1t
Lake Elsinore and Canyon Lake Watershed
Minimum Required Sampling Station Locations

Station Number	Station Description
792	San Jacinto River @ Cranston Guard Station
318	**Hemet Channel at Sanderson Ave.**
745	Salt Creek @ Murrieta Road
759	San Jacinto River @ Goetz Rd
325	Perris Valley Storm Drain @ Nuevo Rd.
741	San Jacinto River @ Ramona Expressway
827	San Jacinto River upstream of Lake Elsinore
790	Fair Weather Dr. Storm Drain in Canyon Lake
357	4 Corners Storm Drain in Elsinore
714	Ortega Flood Channel in Elsinore
324	Lake Elsinore Outlet Channel
712	Leach Canyon Channel in Elsinore
834	Sierra Park Drain in Canyon Lake
835	Bridge Street and San Jacinto River
836	North Side of Ramona Expressway near Warren Road
837	Mystic Lake inflows
838	Mystic Lake outflows
841	Canyon Lake spillway

Frequency of sampling at all stations: dry season – none; wet season; minimum of 3 storms/year whenever possible and 8 samples across each storm hydrograph

4.2 Lake Elsinore: In-Lake Nutrient Monitoring Program

The US Forest Service, the US Air Force (March Air Reserve Base), March Joint Powers Authority, California Department of Transportation (Caltrans), California Department of Fish and Game, the County of Riverside, the cities of Lake Elsinore, Canyon Lake, Hemet, San Jacinto, Perris, Moreno Valley, Murrieta, Riverside and Beaumont, Eastern Municipal Water District[1], Elsinore Valley Municipal Water District, concentrated animal feeding operators and other agricultural operators within the San Jacinto watershed shall, as a group, submit to the Regional Board for approval a proposed Lake Elsinore nutrient monitoring program that will provide

data necessary to review and update the Lake Elsinore Nutrient TMDL. Data to be collected and analyzed shall address, at a minimum: determination of compliance with interim and final nitrogen, phosphorus, chlorophyll *a*, and dissolved oxygen numeric targets. In addition, the monitoring program shall evaluate and determine the relationship between ammonia toxicity and the total nitrogen allocation to ensure that the total nitrogen allocation will prevent ammonia toxicity in Lake Elsinore.

At a minimum, the proposed plan shall include the collection of samples at the stations specified in Table 6-1u and shown in Figure 6-6, at the specified frequency indicated in Table 6-1u. With the exception of dissolved oxygen and water temperature, all samples to be analyzed shall be depth integrated.

The monitoring plan shall be implemented upon Regional Board approval at a duly noticed public meeting. An annual report summarizing the data collected for the year and evaluating compliance with the TMDL shall be submitted by August 15 of each year.

Table 6-1u
Lake Elsinore Minimum Required Sampling Station Locations

Station Number	Station Description
LE 14	Lake Elsinore – inlet
LE 15	Lake Elsinore – four corners
LE 16	Lake Elsinore – mid-lake

Frequency of sampling at all stations: monthly October through May; bi-weekly June through September.

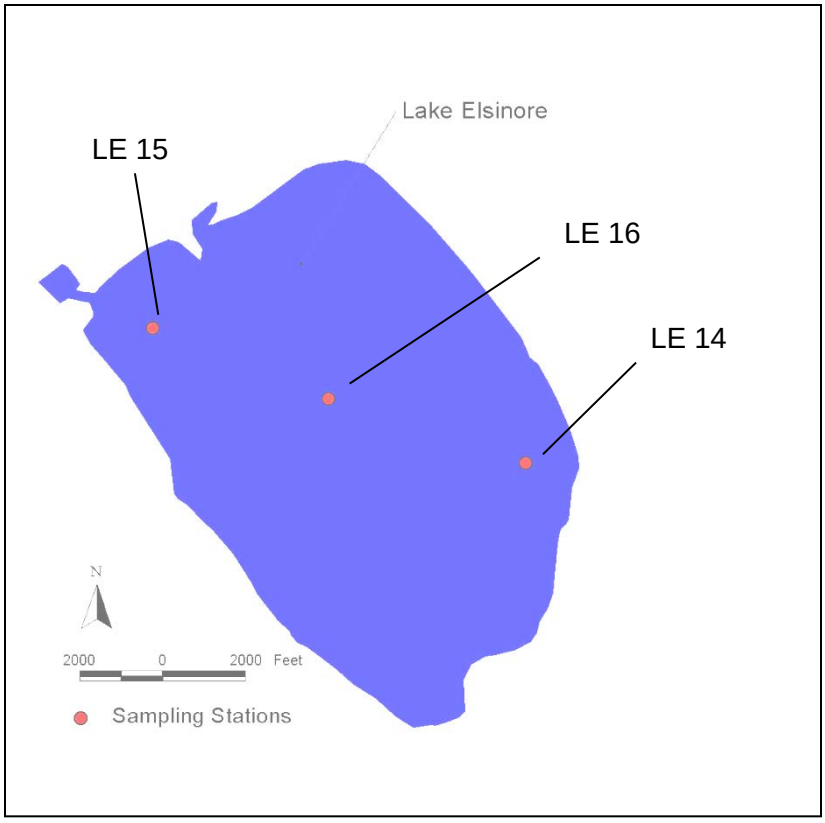


Figure 6-6 Lake Elsinore TMDL monitoring Stations

At a minimum, in-lake samples must be analyzed for the following constituents:

- specific conductance
- water temperature
- pH
- chlorophyll *a*
- organic nitrogen
- nitrite nitrogen
- organic phosphorus
- total hardness
- total dissolved solids (TDS)
- chemical oxygen demand (COD)
- dissolved oxygen
- water clarity (secchi depth)
- ammonia nitrogen
- nitrate nitrogen
- turbidity
- ortho-phosphate (SRP)
- total suspended solids (TSS)
- biological oxygen demand (BOD)

In lieu of this coordinated monitoring plan, one or more of the parties identified above may submit a proposed individual or group monitoring plan for Regional Board approval. This individual monitoring plan shall be implemented upon Regional Board approval at a duly noticed public meeting. An annual report of data collected pursuant to approved individual/group plan(s), shall be submitted by August 15 of each year. The report shall summarize the data and evaluate compliance with the numeric targets.

It may be that implementation of these requirements will be required through the issuance of Water Code Section 13267 letters to the affected parties. The monitoring plan(s) will be considered by the Regional Board and implemented upon the Regional Board's approval.

4.3 Canyon Lake Nutrient Monitoring Program

The US Forest Service, the US Air Force (March Air Reserve Base), March Joint Powers Authority, California Department of Transportation (Caltrans), California Department of Fish and Game, the County of Riverside, the cities of Canyon Lake, Hemet, San Jacinto, Perris, Moreno Valley, Murrieta, Riverside and Beaumont, Elsinore Valley Municipal Water District, concentrated animal feeding operators and other agricultural operators within the San Jacinto watershed shall, as a group, submit to the Regional Board for approval a proposed Canyon Lake nutrient monitoring program that will provide data necessary to review and update the Canyon Lake Nutrient TMDL. Data to be collected and analyzed shall address, at a minimum: determination of compliance with interim and final nitrogen, phosphorus, chlorophyll *a*, and dissolved oxygen numeric targets. In addition, the monitoring program shall evaluate and determine the relationship between ammonia toxicity and the total nitrogen allocation to ensure that the total nitrogen allocation will prevent ammonia toxicity in Canyon Lake.

At a minimum, the proposed plan shall include the collection of samples at the stations specified in Table 6-1v and shown in Figure 6-7, at the specified frequency indicated in Table 6-1v. Discrete samples in Canyon Lake are to be collected in the epilimnion, hypolimnion and thermocline when and where appropriate.

The monitoring plan shall be implemented upon Regional Board approval at a duly noticed public meeting. An annual report summarizing the data collected for the year and evaluating compliance with the TMDL shall be submitted by August 15 of each year.

Table 6-1v
Canyon Lake Minimum Required Sampling Station Locations

Station Number	Station Description
CL 07	Canyon Lake – At the Dam
CL 08	Canyon Lake – North Channel
CL 09	Canyon Lake – Canyon Bay
CL 10	Canyon Lake – East Bay

Frequency of sampling at all stations: monthly October through May;

bi-weekly June through September.

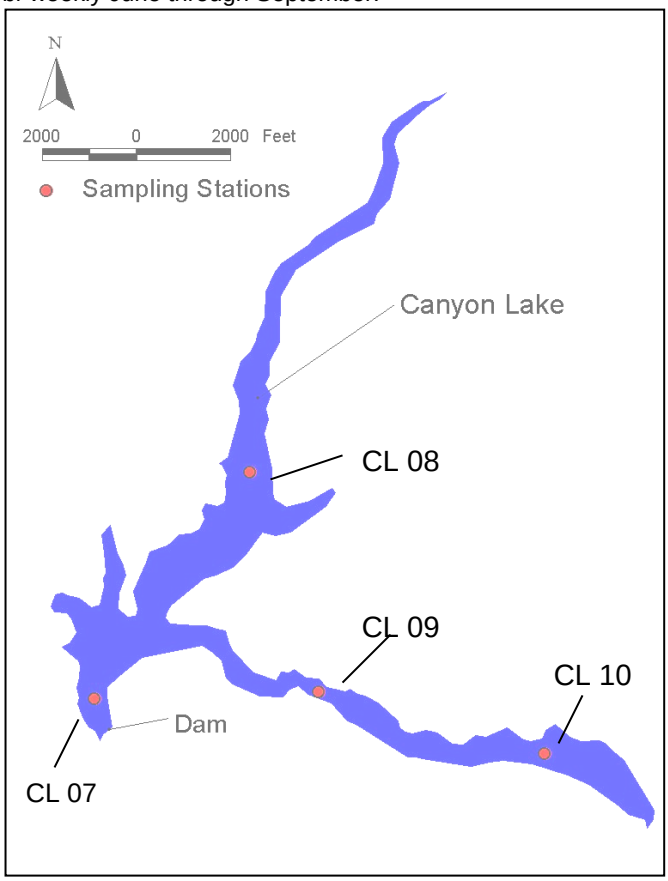


Figure 6-7 – Canyon Lake Nutrient TMDL Monitoring Station Locations

At a minimum, in-lake samples must be analyzed for the following constituents:

- specific conductance
- water temperature
- pH
- chlorophyll *a*
- organic nitrogen
- nitrite nitrogen
- organic phosphorus
- total hardness
- total dissolved solids (TDS)
- chemical oxygen demand (COD)
- dissolved oxygen
- water clarity (secchi depth)
- ammonia nitrogen
- nitrate nitrogen
- turbidity
- ortho-phosphate (SRP)
- total suspended solids (TSS)
- biological oxygen demand (BOD)

In lieu of this coordinated monitoring plan, one or more of the parties identified above may submit a proposed individual or group monitoring plan for Regional Board approval. This individual plan shall be implemented upon Regional Board approval at a duly noticed public meeting. An annual report of data collected pursuant to approved individual/group plan(s) shall be submitted by August 15 of each year. The report shall summarize the data and evaluate compliance with the numeric targets.

It may be that implementation of these requirements will be required through the issuance of Water Code Section 13267 letters to the affected parties. The monitoring plan(s) will be considered by the Regional Board and implemented upon the Regional Board's approval.

Task 5: Agricultural Activities

No later than September 30, 2007, the agricultural operators within the Lake Elsinore and Canyon Lake watershed (see Task 2), in cooperation with the Riverside County Farm Bureau, the UC Cooperative Extension, Western Riverside County Ag Coalition shall, as a group, submit a proposed Nutrient Management Plan (NMP). The Nutrient Management Plan shall be implemented upon Regional Board approval at a duly noticed public meeting.

In lieu of a coordinated plan, one or more of the parties identified above may submit a proposed individual or group Nutrient Management Plan to conduct the above studies for areas within their jurisdiction. Any such individual or group plan shall also be submitted for Regional Board approval no later than September 30, 2007. This Nutrient Management Plan shall be implemented upon Regional Board approval at a duly noticed public meeting.

At a minimum, the NMP shall include, plans and schedules for the following. In order to facilitate any needed update of the numeric targets and/or the TMDLs and/or agricultural LA, the proposed schedule shall take into consideration the Regional Board's triennial review schedule.

- implementation of nutrient controls, BMPs and reduction strategies designed to meet load allocations;
- evaluation of effectiveness of BMPs;
- development and implementation of compliance monitoring; and
- development and implementation of focused studies that will provide the following data and information
    - inventory of crops grown in the watershed;
    - amount of manure and/or fertilizer applied to each crop with corresponding nitrogen and phosphorus amounts; and
    - amount of nutrients discharged from croplands.

The Regional Board expects that the NMP will be submitted and implemented pursuant to these TMDL requirements. Where and when necessary to implement these requirements, the Regional Board will issue appropriate waste discharge requirements.

Compliance with the agricultural load allocation may be achieved through a Regional Board approved program.

Task 6: On-site Disposal Systems (Septic System) Management Plan

No later than 6 months after the effective date of an agreement between the County of Riverside and the Regional Board to implement regulations adopted pursuant to Water Code Sections 13290-13291.7, or if no such agreement is required or completed, within 12 months of the effective date of these regulations, the County of Riverside and the Cities of Perris, Moreno Valley and Murrieta shall, as a group, submit a Septic System Management Plan to identify and address nutrient discharges from septic systems within the San Jacinto watershed. The Septic System Management Plan shall implement regulations adopted by the State Water Resources Control Board pursuant to California Water Code Section 13290 – 13291.7.

At a minimum, the Septic System Management Plan shall include plans and schedules for the development and implementation of the following. In order to facilitate any needed update of the numeric targets and/or the TMDLs and septic system LA, the proposed schedule shall take into consideration the Regional Board's triennial review schedule.

- public education program;
- tracking system, including maintenance thereof;
- maintenance standards;
- enforcement provisions;
- monitoring program; and
- sanitary survey

In lieu of a coordinated plan, one or more of the agencies with septic system oversight responsibilities may submit an individual or group Management Plan to develop the above Plan for areas within their jurisdiction. Any such individual or group plan shall also be submitted no later than March 31, 2006. This Septic System Management Plan shall be implemented upon Regional Board approval at a duly noticed public meeting.

Compliance with the septic systems load allocation may be achieved through a Regional Board approved pollutant trading program.

Task 7: Urban Discharges

Urban discharges, including stormwater runoff, are those discharges from the cities and unincorporated communities in the San Jacinto River watershed. These discharges are regulated under the Riverside County MS4 NPDES permit, the San Jacinto Watershed Construction Activities Storm Water permit, the State Board's General Permit for Storm Water Runoff from Construction Activities, and the State Board's General Permit for Storm Water Runoff from Industrial Activities. Nuisance and stormwater runoff from state highways and right of ways is regulated under the State of California, Department

of Transportation (Caltrans) statewide general NPDES permit. Finally, nuisance and stormwater runoff from the March Air Reserve Base is also regulated through an NPDES permit.

7.1 Revision to the Drainage Area Management Plan (DAMP)

Provision XIII.B. of Order No. R8-2002-0011 (see 2.1, above) requires the permittees to revise their Drainage Area Management Plan (DAMP) to include TMDL requirements. By August 1, 2006, the permittees shall review and revise the DAMP and or WQMP (see 7.2 below) as necessary to address the requirements of these nutrient TMDLs. Further review and revision of the DAMP needed to address these TMDLs shall be completed in accordance with the requirements of Order No. R8-2002-0011 or amendments/updates thereto that are adopted by the Regional Board at a public hearing. The DAMP revisions shall include schedules for meeting the interim and final nutrient wasteload allocations. In order to facilitate any needed update of the numeric targets and/or the TMDLs and urban discharge WLA, the proposed schedule shall take into consideration the Regional Board's triennial review schedule. The revised DAMP/WQMP shall also include a proposal for 1) evaluating the effectiveness of BMPs and other control actions implemented and 2) evaluating compliance with the nutrient waste load allocation for urban runoff. The proposal must be implemented upon approval by the Regional Board after public notice and public hearing, or upon approval by the Executive Officer if no significant comments are received during the public notice period.

7.2 Revision of the Water Quality Management Plan (WQMP)

Provision VIII.B. of Order No. R8-2002-0011 (see 2.1, above) requires the permittees to develop and submit a WQMP by June 2004 for approval. On September 17, 2004, the Board approved a WQMP developed by the permittees. The approved WQMP includes source control BMPs, design BMPs and treatment control BMPs. Further revisions to the WQMP and/or the DAMP may be necessary to meet the WLA for urban runoff. By August 1, 2006, the permittees shall submit a revised WQMP and/or revised DAMP (see 7.1 above) that addresses the nutrient input from new developments and significant redevelopments to assure compliance with the nutrient wasteload allocations for urban runoff. The WQMP shall also address requirements currently in Order No. 01-34 (see 2.2, above). Once the WQMP is approved, Order No. 01-34 may be rescinded. Further review and revision of the WQMP necessary to assure that TMDL requirements are addressed shall be completed in accordance with the requirements of Order No. R8-2002-0011 or amendments/updates thereto that are adopted by the Regional Board at a public hearing.

7.3 Revision of the State of California, Department of Transportation (Caltrans) Stormwater Permit

Provision E.1 of Order No. 99-06-DWQ requires Caltrans to maintain and implement

a Storm Water Management Plan (SWMP). Annual updates of the SWMP needed to maintain an effective program are required to be submitted to the State Water Resources Control Board.

Provision E.2 of Order No. 99-06-DWQ requires Caltrans to submit a Regional Workplan by April 1 of each year for the Executive Officer's approval. By April 1, 2006, Caltrans shall submit a Regional Workplan that includes plans and schedules for meeting the interim and final nutrient wasteload allocations, and provides a proposal for 1) evaluating the effectiveness of BMPs and other control actions implemented and 2) evaluating compliance with the nutrient waste load allocations for urban runoff, which includes runoff from Caltrans facilities. In order to facilitate any needed update of the numeric targets and/or the TMDLs and urban discharge WLA, the proposed schedule shall take into consideration the Regional Board's triennial review schedule. The proposal shall be implemented upon the Executive Officer's approval. Annual updates to the Regional Workplan shall include, as necessary, revised plans and schedules for meeting the interim and final nutrient wasteload allocations and revised proposals for evaluating the efficacy of control actions and compliance with the nutrient wasteload allocations.

7.4 Revision to the United States Air Force, March Air Reserve Base, Stormwater Permit

Order No. R8-2004-0033 specifies monitoring and reporting requirements for stormwater runoff from the US Air Force, March Air Reserve facility. Provision C.17 indicates that the order could be reopened to incorporate TMDL requirements. Provisions C.18.a and C.18.b require that March Air Reserve Base submit a report and revise the Stormwater Pollution Prevention Plan (SWPPP) to address any pollutants that may be causing or contributing to exceedances of water quality standards. Results from the TMDL nutrient monitoring program conducted pursuant to Task 3, shall serve as the basis for revision of the SWPPP and/or reopening the order.

Development of the Municipal permittee's WQMP and revisions to their DAMP, development of the Caltrans SWMP and Regional Workplan, and Revision to the March Air Reserve Base SWPPP, shall address the urban component of the nutrient TMDL.

Compliance with the urban wasteload allocation may be achieved through a Regional Board approved pollutant trading program.

Task 8: Forest Area –Identification of Forest Lands Management Practices

No later than September 30, 2007, the US Forest Service shall submit for approval a plan with a schedule for identification, development and implementation of Management Practices to reduce nutrient discharges emanating from the Cleveland National Forest and the San Bernardino National Forest. The Plan shall identify watershed-specific appropriate Best Management Practices (BMPs) that will be implemented to achieve the

interim and final load allocations for forest. The proposal shall include specific recommendations and a schedule for 1) evaluating the effectiveness of control actions implemented to reduce nutrient discharges from forest and 2) evaluating compliance with the nutrient load allocation from forest/open space. The revised watershed-specific Management Practices shall be implemented upon Regional Board approval at a duly noticed public meeting.

Compliance with the open space/forest load allocation may be achieved through a Regional Board approved pollutant trading program.

Task 9: Lake Elsinore Sediment Nutrient Reduction Plan

No later than March 31, 2007, the US Forest Service, the US Air Force (March Air Reserve Base), March Joint Powers Authority, the State of California, Department of Transportation (Caltrans), the State of California, Department of Fish and Game, the County of Riverside, the cities of Lake Elsinore, Canyon Lake, Hemet, San Jacinto, Perris, Moreno Valley, Murrieta, Riverside and Beaumont, Eastern Municipal Water District[1], Elsinore Valley Municipal Water District, concentrated animal feeding operators and other agricultural operators within the San Jacinto watershed shall, as a group, submit to the Regional Board for approval a proposed plan and schedule for in-lake sediment nutrient reduction for Lake Elsinore. The proposed plan shall include an evaluation of the applicability of various in-lake treatment technologies to prevent the release of nutrients from lake sediments to support development of a long-term strategy for control of nutrients from the sediment. The submittal shall also contain a proposed sediment nutrient monitoring program to evaluate the effectiveness of any strategies that are implemented. The Lake Elsinore In-lake Sediment Nutrient Reduction Plan shall be implemented upon Regional Board approval at a duly noticed public meeting.

In lieu of this coordinated plan, one or more of the parties identified above may submit a proposed individual or group In-lake Sediment Nutrient Reduction Plan for approval by the Regional Board. Any such individual or group Plan is due no later than March 31, 2007 and shall be implemented upon Regional Board approval at a duly noticed public meeting.

In lieu of this coordinated plan, one or more of the parties identified above may submit a proposed individual or group In-lake Sediment Nutrient Reduction Plan for approval by the Regional Board. Any such individual or group Plan is due no later than March 31, 2007 and shall be implemented upon Regional Board approval at a duly noticed public meeting.

Compliance with the Lake Elsinore Sediment Nutrient Reduction Plan requirement may be achieved through a Regional Board approved pollutant trading program.

Task 10: Canyon Lake Sediment Nutrient Treatment Evaluation Plan

No later than March 31, 2007, the US Forest Service, the US Air Force (March Air

Reserve Base), March Joint Powers Authority, California Department of Transportation (Caltrans), California Department of Fish and Game, the County of Riverside, the cities of Canyon Lake, Hemet, San Jacinto, Perris, Moreno Valley, Murrieta, Riverside and Beaumont, Elsinore Valley Municipal Water District, concentrated animal feeding operators and other agricultural operators within the San Jacinto watershed shall, as a group, submit to the Regional Board for approval a proposed plan and schedule for evaluating in-lake sediment nutrient treatment strategies for Canyon Lake. The proposed plan shall include an evaluation of the applicability of various in-lake treatment technologies to prevent the release of nutrients from lake sediments in order to develop a long-term strategy for control of nutrients from the sediment. The submittal shall also contain a proposed sediment nutrient monitoring program to evaluate the effectiveness of any strategies that are implemented. The Canyon Lake In-lake Sediment Nutrient Treatment Plan shall be implemented upon Regional Board approval at a duly noticed public meeting.

In lieu of this coordinated plan, one or more of the parties identified above may submit a proposed individual or group In-lake Sediment Nutrient Treatment Evaluation Plan for approval by the Regional Board. Any such individual or group Plan is due no later than March 31, 2007 and shall be implemented upon Regional Board approval at a duly noticed public meeting.

Task 11: Update of Watershed and In-Lake Nutrient Models

No later than March 31, 2007, the US Forest Service, the US Air Force (March Air Reserve Base), March Joint Powers Authority, California Department of Transportation (Caltrans), California Department of Fish and Game, the County of Riverside, the cities of Lake Elsinore, Canyon Lake, Hemet, San Jacinto, Perris, Moreno Valley, Riverside and Beaumont, Eastern Municipal Water District, Elsinore Valley Municipal Water District, concentrated animal feeding operators and other agricultural operators shall, as a group, submit to the Regional Board for approval a proposed plan and schedule for updating the existing Lake Elsinore/San Jacinto River Nutrient Watershed Model and the Canyon Lake and Lake Elsinore in-lake models. The plan and schedule must take into consideration additional data and information that are generated from the respective TMDL monitoring programs. In order to facilitate any needed update of the numeric targets and/or the TMDLs/WLAs/LAs, the proposed schedule shall take into consideration the Regional Board's triennial review schedule. The plan for updating the Watershed and In-lake Models shall be implemented upon Regional Board approval at a duly noticed public meeting.

In lieu of this coordinated plan, one or more of the parties identified above may submit a proposed individual or group plan for update of the Lake Elsinore/San Jacinto River Nutrient Watershed Model and the Canyon Lake and Lake Elsinore in-lake models. The plan and schedule must take into consideration additional data and information that are generated from the respective TMDL monitoring programs. In order to facilitate any needed update of the numeric targets and/or the TMDLs/WLAs/LAs, the proposed

schedule shall take into consideration the Regional Board's triennial review schedule. Any such individual or group Plan is due no later than March 31, 2007 and shall be implemented upon Regional Board approval at a duly noticed public meeting.

Task 12: Pollutant Trading Plan

No later than September 30, 2007, the US Forest Service, the US Air Force (March Air Reserve Base), March Joint Powers Authority, California Department of Transportation (Caltrans), California Department of Fish and Game, the County of Riverside, the cities of Lake Elsinore, Canyon Lake, Hemet, San Jacinto, Perris, Moreno Valley, Riverside and Beaumont, Eastern Municipal Water District[1], Elsinore Valley Municipal Water District, concentrated animal feeding operators and other agricultural operators shall, as a group, submit to the Regional Board for approval a proposed Pollutant Trading Plan. At a minimum, this plan shall contain a plan, schedule and funding strategy for project implementation, an approach for tracking pollutant credits and a schedule for reporting status of implementation of the Pollutant Trading Plan to the Regional Board, The Pollutant Trading Plan shall be implemented upon Regional Board approval at a duly noticed public meeting.

In lieu of this coordinated plan, one or more of the parties identified above may submit a proposed individual or group Pollutant Trading Plan. Any such individual or group Plan is due no later than September 30, 2007 and shall be implemented upon Regional Board approval at a duly noticed public meeting.

Task 13: Review and Revision of Water Quality Objectives

By December 31, 2009, the Regional Board shall review and revise as necessary the total inorganic nitrogen numeric water quality objectives for Lake Elsinore and Canyon Lake. In addition, the Regional Board shall evaluate the appropriateness of establishing total phosphorus and un-ionized ammonia numeric water quality objectives for both Lake Elsinore and Canyon Lake. Given budgetary constraints, completion of this task is likely to require substantive contributions from interested parties.

Task 14: Review/Revision of the Lake Elsinore/Canyon Lake Nutrient TMDL

The basis for the TMDLs and implementation schedule will be re-evaluated at least once every three years[72] to determine the need for modifying the load allocations, numeric targets and TMDLs. Regional Board staff will continue to review all data and information generated pursuant to the TMDL requirements on an ongoing basis. Based on results generated through the monitoring programs, special studies, modeling analysis, and/or special studies by one or more responsible parties, changes to the TMDL, including revisions to the numeric targets, may be warranted. Such changes would be considered through the Basin Plan Amendment process.
The Regional Board is committed to the review of this TMDL every three years, or more frequently if warranted by these or other studies.

[72] The three-year schedule will coincide with the Regional Board's triennial review schedule.

(End of amendment adopted under Resolution No. R8-2004-0037)

Middle Santa Ana River Watershed (The following was added under Resolution No. R8-2005-0001)

The Middle Santa Ana River Watershed covers approximately 488 square miles and lies largely in the southwestern corner of San Bernardino County, and the northwestern corner of Riverside County. A small part of Los Angeles County (Pomona/Claremont area) is also included. This watershed is comprised of three sub–watersheds. The first sub-watershed is the Chino Basin Watershed, which includes portions of San Bernardino County, Los Angeles County, and Riverside County. Surface drainage in this area is directed to Chino Creek and Cucamonga/Mill Creek and is generally southward, from the San Gabriel Mountains toward the Santa Ana River and the Prado Flood Control Basin. The second sub–watershed, the Riverside Watershed, is located in Riverside County. Surface drainage in this area is generally westward from the City of Riverside to the Santa Ana River, Reach 3. The third sub–watershed, the Temescal Canyon Watershed, is also located in Riverside County. Surface drainage in this area is generally northward to Temescal Creek.

Land uses in the Middle Santa Ana River watershed include urban, agriculture, and open space. Although originally developed as an agricultural area, the watershed is being steadily urbanized. Incorporated cities in the Middle Santa Ana River watershed include Pomona, Chino Hills, Upland, Montclair, Claremont, Ontario, Rancho Cucamonga, Rialto, Chino, Fontana, Norco, Corona, and Riverside. In addition, there are several pockets of urbanized unincorporated areas. The current population of the watershed, based upon 2000 census data, is approximately 1.4 million people. The principal remaining agricultural area in the watershed is the area formerly known as the Chino Dairy Preserve. This area is located in the south–central part of the Chino Basin watershed and contains approximately 300,000 cows, which generate the waste equivalent of more than two million people. Recently, the cities of Ontario and Chino annexed the San Bernardino County portions of this area. The remaining portion of the former preserve, which is in Riverside County, remains unincorporated. Open space areas include National Forest lands and State Parks lands.

Middle Santa Ana River Watershed Bacterial Indicator Total Maximum Daily Loads (TMDLs)

Middle Santa Ana River Watershed waterbodies listed on the Clean Water Act Section 303(d) list of impaired waters due to violations of REC1 fecal coliform bacteria objectives are shown in Table 6-1w.

Table 6-1w – Middle Santa Ana River Watershed Waterbodies on the 303(d) List Due to Bacterial Contamination

Waterbody, Reach
Santa Ana River, Reach 3
Chino Creek, Reach 1
Chino Creek, Reach 2
Mill Creek (Prado Area)
Cucamonga Creek, Reach 1
Prado Park Lake

During storm events, these waterbodies receive and transport runoff from urban, agricultural, and open space areas. During dry weather, these waterbodies receive and transport nuisance runoff, primarily from urban areas. Based on monitoring results, and observed waterbody conditions (fish kills and waste-laden stormflows), the Regional Board placed these waterbodies on the 303(d) list of impaired waters due to levels of bacterial indicators that exceeded established objectives for REC1 uses. The listings took place from 1988 to 1998.

A TMDL technical report prepared by Regional Board staff describes the bacterial indicator related problems in the Middle Santa Ana River Watershed waterbodies in greater detail and discusses the technical basis for the TMDLs that follow [Ref. # 31].

A. Middle Santa Ana River Watershed Bacterial Indicator TMDL Numeric Targets

Bacterial indicator numeric targets for the Middle Santa Ana River Watershed waterbodies shown in Table 6-1x are based, in part, on the fecal coliform water quality objective specified in Chapter 4 for the protection of body-contact recreation (REC1) in inland surface waters.

Recognizing that, in the future, *Escherichia coli* (*E. coli*) may be incorporated into the Basin Plan as new bacterial water quality objectives for REC1, alternative numeric targets for *E. coli* are also specified[73]. These targets are based on *E. coli* criteria recommended by the U.S. Environmental Protection Agency [Ref #32]. The *E. coli* levels were chosen to roughly correspond to the health risk level associated with the fecal coliform objectives.

[73] USEPA is requiring the states to evaluate and incorporate more appropriate bacterial indicators, including *E. coli*, as water quality standards based on its Ambient Water Quality Criteria for Bacteria – 1986. The Regional Board is participating in the efforts of the Storm Water Quality Standards Task Force (SWQSTF), which is evaluating USEPA's bacterial indicator recommendations and REC1 beneficial use designations for waterbodies within the Santa Ana Region, including the Middle Santa Ana River watershed waterbodies. This numeric target and resulting TMDLs, WLAs and LAs will be adjusted accordingly when and if recommendations from the SWQSTF are incorporated into the Basin Plan.

The numeric targets for both bacterial indicators incorporate an explicit 10% margin of safety to address uncertainties recognized in the development of the TMDLs. These numeric targets are specified as follows:

> **Fecal coliform: log mean less than 200 organisms/100 mL based on five or more samples per 30-day period, and not more than 10% of the samples exceed 400 organisms/100 mL for any 30-day period.**
>
> ***E. coli*: log mean less than 126 organisms/100 mL based on five or more samples per 30-day period, and not more than 10% of the samples exceed 235 organisms/100mL for any 30-day period.**

The fecal coliform numeric targets (and other fecal coliform related provisions of these TMDLs) will become ineffective upon the replacement of the fecal coliform REC1 objectives in the Basin Plan with REC1 objectives based on *E. coli* Incorporation of new *E. coli* objectives will be considered through the Basin Planning process.

B. Middle Santa Ana River Watershed Bacterial Indicator TMDLs, Wasteload Allocations, Load Allocations and Compliance Dates

As discussed in the technical TMDL Report, the bacterial indicator TMDLs are expressed in terms of density since it is the number of organisms in a given volume of water (i.e., their density), and not their mass that is significant with respect to public health and the protection of beneficial uses. Similarly, the wasteload allocations for point source discharges (WLAs) and load allocations for nonpoint source discharges (LAs) are also based on density. The density–based WLAs and LAs do not add up to equal the TMDLs, since this is not scientifically valid. To achieve the density–based TMDLs, each WLA and LA must meet the density–based TMDL. As indicated in Table 6-1x, the TMDLs, WLAs and LAs also include a 10% margin of safety (see C., below) applied to the existing Basin Plan fecal coliform objective for REC1 for inland surface waters and to the alternative indicator *E. coli* criteria recommended by the U.S. Environmental Protection Agency. Again, the *E. coli* was chosen to correspond with the health risk level associated with the fecal coliform objectives.

WLAs are specified for urban discharges and discharges from Confined Animal Feeding Operations, including stormwater. LAs are specified for runoff from other types of agriculture and from natural sources (open space/undeveloped forest land). TMDLs, WLAs and LAs are specified for both dry weather discharges and wet weather discharges, with separate compliance schedules. An extended schedule for compliance with the wet weather TMDLs is specified in light of the expected increased difficulty in achieving compliance under these conditions.

Table 6-1x – Total Maximum Daily Loads, Waste Load Allocations, and Load Allocations for Bacterial Indicators in Middle Santa Ana River Waterbodies[a,b,c]

Indicator	Total Maximum Daily Loads for Bacterial Indicators	Waste Load Allocation for Bacterial Indicators in Urban Runoff including stormwater discharges	Waste Load Allocation for Bacterial Indicators in Confined Animal Feeding Operations discharges	Load Allocation for Bacterial Indicators in Agricultural runoff discharges	Load Allocation for Bacterial Indicators from Natural Sources
Dry Summer Conditions: April 1 through October 31, as soon as possible, but no later than December 31, 2015					
Fecal coliform	5–sample/30–day Logarithmic Mean less than 180 organisms/100mL, and not more than 10% of the samples exceed 360 organisms/100mL for any 30–day period.	5–sample/30–day Logarithmic Mean less than 180 organisms/100mL, and not more than 10% of the samples exceed 360 organisms/100mL for any 30–day period.	5–sample/30–day Logarithmic Mean less than 180 organisms/100mL, and not more than 10% of the samples exceed 360 organisms/100mL for any 30–day period.	5–sample/30–day Logarithmic Mean less than 180 organisms/100mL, and not more than 10% of the samples exceed 360 organisms/100mL for any 30–day period.	5–sample/30–day Logarithmic Mean less than 180 organisms/100mL, and not more than 10% of the samples exceed 360 organisms/100mL for any 30–day period.
E. coli	5–sample/30–day Logarithmic Mean less than 113 organisms/ 100mL, and not more than 10% of the samples exceed 212 organisms/100mL for any 30–day period.	5–sample/30–day Logarithmic Mean less than 113 organisms/ 100mL, and not more than 10% of the samples exceed 212 organisms/100mL for any 30–day period.	5–sample/30–day Logarithmic Mean less than 113 organisms/ 100mL, and not more than 10% of the samples exceed 212 organisms/100mL for any 30–day period.	5–sample/30–day Logarithmic Mean less than 113 organisms/ 100mL, and not more than 10% of the samples exceed 212 organisms/100mL for any 30–day period.	5–sample/30–day Logarithmic Mean less than 113 organisms/ 100mL, and not more than 10% of the samples exceed 212 organisms/100mL for any 30–day period.
Wet Winter Conditions: November 1 through March 31, as soon as possible, but no later than December 31, 2025					
Fecal coliform	5–sample/30–day Logarithmic Mean less than 180 organisms/100ml, and not more than 10% of the samples exceed 360 organisms/100ml for any 30–day period.	5–sample/30–day Logarithmic Mean less than 180 organisms/100ml, and not more than 10% of the samples exceed 360 organisms/100ml for any 30–day period.	5–sample/30–day Logarithmic Mean less than 180 organisms/100ml, and not more than 10% of the samples exceed 360 organisms/100ml for any 30–day period.	5–sample/30–day Logarithmic Mean less than 180 organisms/100ml, and not more than 10% of the samples exceed 360 organisms/100ml for any 30–day period.	5–sample/30–day Logarithmic Mean less than 180 organisms/100ml, and not more than 10% of the samples exceed 360 organisms/100ml for any 30–day period.
E. coli	5–sample/30–day Logarithmic Mean less than 113 organisms/ 100mL, and not more than 10% of the samples exceed 212 organisms/100mL for any 30–day period.	5–sample/30–day Logarithmic Mean less than 113 organisms/ 100mL, and not more than 10% of the samples exceed 212 organisms/100mL for any 30–day period.	5–sample/30–day Logarithmic Mean less than 113 organisms/ 100mL, and not more than 10% of the samples exceed 212 organisms/100mL for any 30–day period.	5–sample/30–day Logarithmic Mean less than 113 organisms/ 100mL, and not more than 10% of the samples exceed 212 organisms/100mL for any 30–day period.	5–sample/30–day Logarithmic Mean less than 113 organisms/ 100mL, and not more than 10% of the samples exceed 212 organisms/100mL for any 30–day period.

[a] To be achieved as soon as possible, but no later than dates specified.
[b] TMDLs, WLAs and LAs, include a 10% Margin of Safety the REC1 fecal coliform objectives in the Basin Plan by approved REC1 objectives based on E. coli
[c] The fecal coliform TMDLs, WLAs, and LAs become ineffective upon the replacement of

C. Margin of Safety

A 10% margin of safety is explicitly incorporated into the Bacterial Indicator TMDLs for the Middle Santa Ana River Watershed to account for unknowns, such as bacterial regrowth, bacteria dilution and organism die–off. As additional data on bacterial dynamics in the Middle Santa Ana River watershed are developed, the margin of safety can be adjusted accordingly.

D. Seasonal Variations/Critical Conditions

The Basin Plan REC1 fecal coliform objectives apply year-round; no distinctions based on climate or other conditions that may affect actual REC1 use are specified[74]. As shown in Table 6-1x, different compliance dates are specified for dry season discharges and wet season discharges. This ensures that dry season recreational beneficial uses are addressed on a priority basis. Additional time is allowed to address complexities associated with the control of wet weather discharges.

E. TMDL Implementation

Implementation is expected to result in compliance with the water quality objectives/numeric targets for fecal coliform and with the numeric targets for *E. coli*. The intent is to ensure protection of the REC1 beneficial uses of Middle Santa Ana River Watershed waterbodies. Collection of additional monitoring data is critical to developing long-term solutions for bacterial indicator control, as well as to consider whether changes to the TMDL are appropriate. With that in mind, the requirements for submittal of plans and schedules to implement the TMDLs take into consideration the need to develop and implement effective short-term solutions, as well as allow for the development of long-term solutions once additional data have been generated.

Implementation of tasks and schedules as specified in Table 6-1y is expected to achieve compliance with the TMDLs and, thereby, water quality standards. Each of these tasks is described below.

[74] The SWQSTF may recommend changes to the REC1 objectives to reflect conditions, such as high flows, that affect REC1 use. Any such changes will be considered through the Basin Planning process

Table 6-1y – Middle Santa Ana River Watershed Bacterial Indicator TMDL Implementation Plan/Schedule Due Dates

Task	Description	Compliance Date-As soon As Possible but No Later Than
TMDL Phase 1		
Task 1	Revise Existing Waste Discharge Requirements	February 28, 2008
Task 2	Identify Agricultural Operators	June 30, 2007
Task 3	Develop Watershed-Wide Bacterial Indicator Water Quality Monitoring Program Implement Watershed-Wide Bacterial Indicator Water Quality Monitoring Program	November 30, 2007 Upon Regional Board approval Seasonal reports due May 31 and December 31 of each year Triennial reports due every 3 years beginning with first report due February 15, 2010.
Task 4	Urban Discharges 4.1 Develop and Implement Bacterial Indicator Urban Source Evaluation Plan 4.2 San Bernardino County MS4: Revise Municipal Storm Water Management Program (MSWMP) 4.3 Riverside County MS4: Revise Drainage Area Management Plan (DAMP) 4.4 San Bernardino County MS4: Revise Water Quality Management Plan (WQMP) 4.5 Riverside County MS4: Revise Water Quality Management Plan (WQMP)	Plan/schedule due 4.1 November 30, 2007 4.2 Dependent on Task 4.1 results (see text) 4.3 Dependent on Task 4.1 results (see text) 4.4 Dependent on Task 4.1 results (see text) 4.5 Dependent on Task 4.1 results (see text)
Task 5	Agricultural Discharges 5.1 Develop and Implement Bacterial Indicator Agricultural Source Evaluation Plan 5.2 Develop and Implement Bacterial Indicator Agricultural Source Management Plan	Plan/schedule due 5.1 November 30, 2007 5.2 Dependent on Task 5.1 results (see text)
Task 6	Review of TMDLs/WLAs/LAs	Once every 3 years to coincide with the Regional Board's triennial review, or more frequently as warranted

Task 1: Review and/or Revise Existing Waste Discharge Requirements

There are three Waste Discharge Requirements (WDRs) issued by the Regional Board regulating discharge of various types of wastes in the watershed. On or before **February 28, 2008**, each of these WDRs shall be reviewed and revised as necessary to implement the TMDLs, including the appropriate wasteload allocations, compliance schedules and/or monitoring program requirements.

1.1 Waste Discharge Requirements for the San Bernardino County Flood Control and Transportation District, the County of San Bernardino and the Incorporated Cities of San Bernardino County within the Santa Ana Region, Areawide Urban Runoff, NPDES No. CAS 618036 (Regional Board Order No. R8-2002-0012). The current Order has provisions to address TMDL issues (see Task 4, below). In light of these provisions, revision of the Order may not be necessary to address TMDL requirements.

1.2 Waste Discharge Requirements for the Riverside County Flood Control and Water Conservation District, the County of Riverside and the Incorporated Cities of Riverside County within the Santa Ana Region, Areawide Urban Runoff, NPDES No. CAS 618033 (Regional Board Order No. R8-2002-0011). The current Order has provisions to address TMDL issues (see Task 4, below). In light of these provisions, revision of the Order may not be necessary to address TMDL requirements.

1.3 General Waste Discharge Requirements for Concentrated Animal Feeding Operations (Dairies and Related Facilities) within the Santa Ana Region, NPDES No. CAG018001 (Regional Board Order No. 99-11). Updated waste discharge requirements for Concentrated Animal Feeding Operations are expected to be considered by the Regional Board in 2005. These requirements will include appropriate TMDL requirements.

Other waste discharge requirements may be reviewed and/or revised to address bacterial indicator discharges as appropriate.

Task 2: Identify Agricultural Operators

On or before **June 30, 2007**, the Regional Board shall develop a list of all known agricultural owners/operators in the Middle Santa Ana River watershed that will be responsible for implementing requirements of these TMDLs. The Regional Board will send a notice to these operators informing them of their TMDL responsibility and alerting them to the potential regulatory consequences of failure to comply.

To implement the agricultural load allocations for non-Concentrated Animal Feeding Operations, monitoring program requirements specified in Task 3 and the agricultural source evaluation studies (Task 5), the Regional Board may issue waste discharge

requirements or a waiver of such waste discharge requirements that is conditioned on satisfactory compliance with these TMDL elements.

Task 3: Watershed-Wide Bacterial Indicator Water Quality Monitoring Program

No later than **November 30, 2007**, the US Forest Service, the County of San Bernardino, the County of Riverside, the cities of Ontario, Chino, Chino Hills, Montclair, Rancho Cucamonga, Upland, Rialto, Fontana, Norco, Riverside, and Corona, Pomona and Claremont and agricultural operators in the watershed, shall as a group, submit to the Regional Board for approval a proposed watershed-wide monitoring program that will provide data necessary to review and update the TMDLs. Data to be collected and analyzed shall address, at a minimum, determination of compliance with the TMDLs, WLAs and LAs.

At a minimum, the stations specified in Tables 6-1z and 6-1a-a and shown in Figure 6-8, at the frequency specified in Tables 6-1z and 6-1a-a shall be considered for inclusion in the proposed monitoring plan. If one or more of these monitoring stations are not included, the rationale shall be provided and proposed alternative monitoring locations shall be identified in the proposed monitoring plan. The proposed monitoring plan shall also include a plan to compile streamflow measurements at existing USGS stream gauging stations.

At a minimum, samples shall be analyzed for the following constituents:

- Fecal Coliform
- Escherichia Coli (E. coli)
- Total Suspended Solids
- pH
- Temperature
- Electrical Conductivity
- Dissolved Oxygen
- Turbidity

The proposed monitoring plan shall be implemented upon Regional Board approval at a duly noticed public meeting. Seasonal reports summarizing and including copies of the data collected during the dry season and wet season monitoring periods shall be submitted by May 31 and December 31 of each year. In order to facilitate review and update of the numeric targets and/or the TMDLs, WLAs, LAs, a triennial report summarizing the data collected for the preceding 3-year period and evaluating compliance with the WLAs/LAs shall be submitted every three years, beginning with the first report due February 15, 2010.

In lieu of this coordinated monitoring plan, one or more of the parties identified above may submit a proposed individual or group monitoring plan for Regional Board approval. Any such individual or group monitoring plan is due no later than November 30, 2007 and shall be implemented upon Regional Board approval at a duly noticed public meeting. Seasonal reports summarizing and including copies of the data collected during the dry season and wet season monitoring periods shall be submitted by May 31 and December 31 of each year. In order to facilitate review and update of the numeric targets and/or the TMDLs, WLAs, LAs, a triennial report summarizing the data collected for the preceding 3-year period and evaluating compliance with the WLAs/LAs shall be submitted every three years, beginning with the first report due February 15, 2010.

Table 6-1z – Watershed Minimum Required Weekly Sampling Station Locations

Station Number	Station Description
C1	Icehouse Canyon Creek
C2	Chino Creek at Schaeffer Avenue
C3	**Prado Park Lake at lake outlet**
C7	**Chino Creek at Central Avenue**
C8	Chino Creek at Prado Golf Course
M2	Cucamonga Creek at Regional Plant No. 1
M5	Mill Creek at Chino–Corona Road
S1	Santa Ana River at MWD Crossing
S3	Santa Ana River at Hamner Avenue
T1	**Temescal Wash at Lincoln Avenue**
TQ1	Tequesquite Arroyo at Palm Avenue

Frequency of sampling:

Dry season: weekly

Wet season: two 30-day sampling periods during which a minimum of 5 samples are to be collected (at least one sample weekly) and if possible, a minimum of 5 of those samples must be from storm events.

Table 6-1a-a –Additional Watershed Event Sampling

Station Number	Station Description
M3	Bon View Avenue @ Merrill Avenue
M4	Archibald Avenue @ Cloverdale Avenue
G1	**Grove Channel @ Pine Avenue**
E1	**Euclid Avenue Channel @ Pine Avenue**

Frequency of sampling:

wet weather – one sample/storm event for 5 storm events/year

dry weather – none.

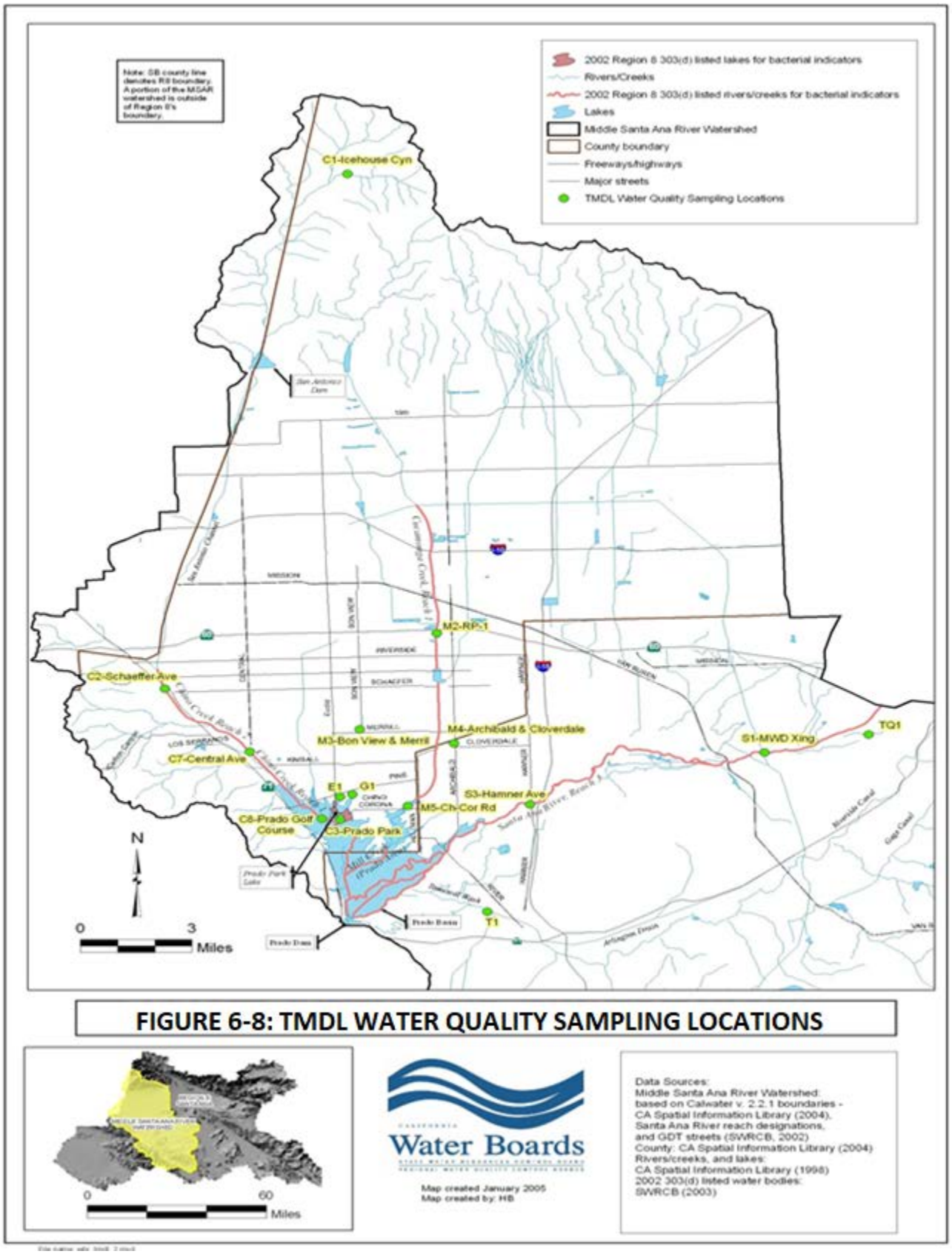


FIGURE 6-8: TMDL WATER QUALITY SAMPLING LOCATIONS

Task 4: Urban Discharges

Phase I urban discharges, including stormwater runoff, include those from the cities and unincorporated communities in the Middle Santa Ana River Watershed. These discharges are regulated under the MS4 NPDES permits identified in Tasks 1.1 and 1.2 (Review and Revise Existing Waste Discharge Requirements), above. The requirements of these NPDES permits differ somewhat and therefore the TMDL implementation requirements that pertain to the permittees under each permit also vary slightly, as shown below[75].

4.1 Develop and Implement Bacterial Indicator Urban Source Evaluation Plans

On or before **November 30, 2007**, the County of San Bernardino, the County of Riverside, the cities of Ontario, Chino, Chino Hills, Montclair, Rancho Cucamonga, Upland, Rialto, Fontana, Norco, Riverside, and Corona, Pomona and Claremont shall develop a Bacterial Indicator Urban Source Evaluation Plan(s) (USEP). This plan shall include steps needed to identify specific activities, operations, and processes in urban areas that contribute bacterial indicators to Middle Santa Ana River Watershed waterbodies. The plan shall also include a proposed schedule for completion of each of the steps identified. The proposed schedules can include contingency provisions that reflect uncertainty concerning the schedule for completion of the SWQSTF work and/or other investigations that may affect the steps that are proposed. The USEP shall be implemented upon Regional Board approval at a duly noticed public meeting.

4.2 Revise the San Bernardino County Municipal Storm Water Management Program (MSWMP)

Provision XVI.3. of Order No. R8-2002-0012 (see 1.1, above) requires the permittees to revise their Municipal Storm Water Management Program (MSWMP) to include TMDL requirements. Revisions to the MSWMP may be necessary based on the results of Task 4.1, Basin Plan amendments to address recommendations of the SWQSTF, or other investigations. Because of uncertainties regarding the timing of completion of these studies, it is not feasible to identify an explicit date whereby the revision of the MSWMP is to be accomplished. Instead, the Executive Officer shall notify the permittees of the need to revise the MSWMP. Within 90 days of notification by the Executive Officer, the permittees shall submit for Regional Board approval, a plan and schedule to review and revise the MSWMP as necessary to incorporate measures to address the results of the USEP and/or other studies. Further

[75] The San Bernardino MS4 permit requires the development and implementation of a Municipal Stormwater Management Program (MSWMP) to address stormwater discharges from existing urban activities. For the Riverside County MS4 permit, the Drainage Area Management Plan (DAMP) addresses stormwater discharges from existing urban activities.

review and revision of the MSWMP needed to address these TMDLs shall be completed in accordance with the requirements of Order No. R8-2002-0012 or amendments thereto that are adopted by the Regional Board at a public hearing. The MSWMP revisions shall include schedules for meeting the bacterial indicator wasteload allocations based on the schedule established in these TMDLs. In order to facilitate any needed update of the numeric targets and/or the TMDLs and urban discharge WLAs, the proposed schedule shall take into consideration the Regional Board's triennial review schedule. The permittees shall also provide a proposal and schedule for 1) evaluating the effectiveness of BMPs and other control actions implemented and 2) evaluating compliance with the bacterial indicator waste load allocations for urban runoff. The plan and schedule to review the MSWMP must be implemented upon approval by the Regional Board after public notice and public hearing, or upon approval by the Executive Officer if no significant comments are received during the public notice period.

4.3 Revise the Riverside County Drainage Area Management Plan (DAMP)

Provision XIII.B. of Order No. R8-2002-0011 (see 1.2, above) requires the permittees to revise their Drainage Area Management Plan (DAMP) to include TMDL requirements. Revisions to the DAMP may be necessary based on the results of Task 4.1, Basin Plan amendments to address recommendations of the SWQSTF, or other investigations. Because of uncertainties regarding the timing of completion of these studies, it is not feasible to identify an explicit date whereby the revision of the DAMP is to be accomplished. Instead, the Executive Officer shall notify the permittees of the need to revise the DAMP. Within 90 days of notification by the Executive Officer, the permittees shall submit for Regional Board approval, a plan and schedule to review and revise the DAMP as necessary to incorporate measures to address the results of the USEP and/or other studies. Further review and revision of the DAMP needed to address these TMDLs shall be completed in accordance with the requirements of Order No. R8-2002-0011 or amendments/updates thereto that are adopted by the Regional Board at a public hearing. The DAMP revisions shall include schedules for meeting the bacterial indicator wasteload allocations based on the schedule established in these TMDLs. In order to facilitate review and update of the numeric targets and/or the TMDLs and urban discharge WLAs, the proposed schedule shall take into consideration the Regional Board's triennial review schedule. The revised DAMP shall also include a proposal and schedule for 1) evaluating the effectiveness of BMPs and other control actions implemented and 2) evaluating compliance with the bacterial indicator waste load allocations for urban runoff. The plan and schedule to review and revise the DAMP must be implemented upon approval by the Regional Board after public notice and public hearing, or upon approval by the Executive Officer if no significant comments are received during the public notice period.

4.4 Revise the San Bernardino County Water Quality Management Plan (WQMP)

Provision XII.B. 1. of Order No. R8-2002-0012 requires the permittees to develop and submit a WQMP for new developments and significant redevelopments by January 2004 for the Executive Officer's approval. Revisions to the WQMP may be necessary based on the results of Task 4.1, Basin Plan amendments to address recommendations of the SWQSTF, or other investigations. Because of uncertainties regarding the timing of completion of these studies, it is not feasible to identify an explicit date whereby the revision of the WQMP is to be accomplished. Instead, the Executive Officer shall notify the permittees of the need to revise the WQMP. Within 90 days of notification by the Executive Officer, the permittees shall submit for Regional Board approval a plan and schedule to review and revise the WQMP that addresses the bacterial indicator input from new developments and significant redevelopments to assure compliance with the bacterial indicator wasteload allocations for urban runoff. Further review and revision of the WQMP necessary to address TMDL requirements, shall be completed in accordance with the requirements of Order No. R8-2002-0012 or amendments/updates thereto that are adopted by the Regional Board at a public hearing.

4.5 Revise the Riverside County Water Quality Management Plan (WQMP)

Provision VIII.B. of Order No. R8-2002-0011 (see 1.2, above) requires the permittees to develop and submit a WQMP for new developments and significant redevelopments by June 2004 for approval. On September 17, 2004, the Board approved a WQMP developed by the permittees. The approved WQMP includes source control BMPs, design BMPs and treatment control BMPs. Further revisions to the WQMP may be necessary to meet the WLA for urban runoff. Such revisions may be necessary based on the results of Task 4.1, Basin Plan amendments to address recommendations of the SWQSTF, or other investigations. Because of uncertainties regarding the timing of completion of these studies, it is not feasible to identify an explicit date whereby the revision of the WQMP is to be accomplished. Instead, the Executive Officer shall notify the permittees of the need to revise the WQMP. Within 90 days of notification by the Executive Officer, the permittees shall submit for Regional Board approval a plan and schedule for review and revision of the WQMP that addresses the bacterial indicator input from new developments and significant redevelopments to assure compliance with the bacterial indicator wasteload allocations for urban runoff. Further review and revision of the WQMP necessary to address TMDL requirements, shall be completed in accordance with the requirements of Order No. R8-2002-0011 or amendments/updates thereto that are adopted by the Regional Board at a public hearing.

If the results of studies conducted pursuant to Tasks 3 and 4.1 above demonstrate that either the Phase II non-traditional small MS4 discharges covered under the statewide Waste Discharge Requirements for Stormwater Discharges from Small Municipal Separate Storm Systems (Order No. 2003-0005-DWQ) or industrial discharges from facilities covered by the statewide Industrial Stormwater General Permit (Order 97-03-DWQ) or any Regional Board individual industrial permit, are responsible, to a significant degree, for exceedances of the urban WLAs, the Regional Board will take the appropriate regulatory steps to address these discharges.

Task 5: Agricultural Discharges

Agricultural discharges include stormwater runoff, wastewater release and tailwater runoff from agricultural land uses. Tailwater runoff is irrigation water that runs off of agricultural land. Agricultural land uses include concentrated animal feeding operations and irrigated and dry-land farming in the Middle Santa Ana River Watershed. Concentrated animal feeding operations are regulated under WDRs (see Task 1.3, above); irrigated agriculture and dry-land farming are not currently regulated.

5.1 Develop and Implement Bacterial Indicator Agricultural Source Evaluation Plans

On or before **November 30, 2007**, concentrated animal feeding facility operators and agricultural operators in the Middle Santa Ana River Watershed shall develop and implement Bacterial Source Agricultural Source Evaluation Plans (AGSEP). These plans shall include steps needed to identify specific activities, operations, and processes in agricultural areas that contribute bacterial indicators to Middle Santa Ana River Watershed waterbodies. The plan shall also include a proposed schedule for completion of each of the steps identified. The proposed schedules can include contingency provisions that reflect uncertainty concerning the schedule for completion of the SWQSTF work and/or other investigations that may affect the steps that are proposed. The AGSEP shall be implemented upon Regional Board approval at a duly noticed public meeting.

The Regional Board expects that the AGSEP will be submitted and implemented pursuant to these TMDL requirements. Where and when necessary to implement these requirements, the Regional Board will utilize appropriate waste discharge requirements including those for concentrated animal feeding operations (see 1.3, above), or other Water Code authorities.

In lieu of a coordinated source evaluation plan, one or more of the parties identified above may submit a proposed individual or group AGSEP to conduct the above studies for areas within their jurisdiction. Any such individual or group plan shall also be submitted for Regional Board approval no later than November 30, 2007. This AGSEP shall be implemented upon Regional Board approval at a duly noticed public meeting.

5.2 Develop and Implement a Bacterial Indicator Agricultural Source Management Plan

Based on the results of Task 5.1 or other studies conducted in the watershed, concentrated animal feeding operators and agricultural operators within the Middle Santa Ana River Watershed shall, as a group, submit a proposed Bacterial Indicator Agricultural Source Management Plan (BASMP). Because of uncertainties regarding the timing of completion of these studies and in recognition that readily identifiable steps may be taken to reduce bacterial discharges from agricultural lands, it is not feasible to identify an explicit date whereby the development and implementation of the BASMP is to be accomplished. Instead, the Executive Officer shall notify agricultural operators of the need to submit the proposed BASMP in whole or to submit plans and schedule to address a subset of tasks identified in the AGSEP. Within 90 days of notification by the Executive Officer, the proposed BASMP, or a subset thereof, shall be submitted. The BASMP, or subset thereof, shall be implemented upon Regional Board approval at a duly noticed public meeting. At a minimum, the BASMP shall include plans and schedules for the following:

A. implementation of bacterial indicator controls, BMPs and reduction strategies designed to meet load allocations;

B. evaluation of effectiveness of BMPs; and

C. development and implementation of compliance monitoring program(s).

The Regional Board expects that the BASMP will be submitted and implemented pursuant to these TMDL requirements. Where and when necessary to implement these requirements, the Regional Board will utilize appropriate waste discharge requirements or other Water Code authorities.

In lieu of a coordinated plan, one or more of the parties identified above may submit a proposed individual or group BASMP to develop and implement the above plan for areas within their jurisdiction. Any such individual or group plan shall also be submitted for Regional Board approval. Because of uncertainties regarding the timing of completion of these studies and in recognition that readily identifiable steps may be taken to reduce bacterial discharges from agricultural lands, it is not feasible to identify an explicit date whereby the development and implementation of the BASMP is to be accomplished. Instead, the Executive Officer shall notify agricultural operators of the need to submit the proposed BASMP in whole or to submit plans and schedule to address a subset of tasks identified in the AGSEP. Within 90 days of notification by the Executive Officer, the proposed BASMP, or a subset therefore, shall be submitted. This BASMP, or a subset thereof, shall be implemented upon Regional Board approval at a duly noticed public meeting.

Task 6: Review/Revision of the Bacterial Indicator TMDL (TMDL "Re-opener")

The basis for the TMDLs and implementation schedule will be re-evaluated at least once every three years[76] to determine the need for modifying the load and wasteload allocations, numeric targets and TMDLs. Regional Board staff will continue to review all data and information generated pursuant to the TMDL requirements on an ongoing basis. Based on results generated through the monitoring programs, special studies, modeling analysis, efforts of the Storm Water Quality Standards Task Force[77] and/or special studies by one or more responsible parties, changes to the TMDLs, including revisions to the numeric targets, WLAs and LAs, may be warranted. Such changes would be considered through the Basin Plan Amendment process.

The Regional Board is committed to the review of this TMDL every three years, or more frequently if warranted by the results of monitoring and/or other relevant studies.

(End of amendment adopted under Resolution No. R8-2005-0001)

[76] The three-year schedule will coincide with the Regional Board's triennial review schedule.

[77] Stakeholders formed the Storm Water Quality Standards Task Force (Task Force) in 2002 to support review and update of the bacterial quality objectives for REC1 waters and to review the REC1 designations themselves to assure their accuracy. Participants include representatives from the Santa Ana Watershed Project Authority, (SAWPA) flood control agencies from the 3 counties within the Santa Ana Region, POTW dischargers and stormwater staff from various municipalities in the watershed. Environmental groups, Regional Board staff and USEPA staff are also participants. SAWPA staff serve as facilitators for the Task Force.

	2008-09	2009-10	2010-11	2012-13	2013-14	2014-15	2015-16	2016-17		TOTAL
Anaheim -6										
A (22)		$0	$0		$0	$0	$0	$0		$0
B (23)		$677	$0		$0	$0	$0	$0		$677
C1 (24)		$6,372	$311		$0	$0	$0	$0		$6,683
C2 (25)		$468	$705		$2,983	$3,860	$2,241	$1,155		$11,412
C3 (26)		$11			$0	$0	$0	$0		$11
D (27)		$0	$861		$0	$0	$0	$0		$861
(28)										
(29 total)		$7,528	$1,877		$2,983	$3,860	$2,241	$1,155		
Buena Park-1		(forms missing)								
A (22)		$0								$0
B (23)		$1,240								$1,240
C1 (24)		$1,438								$1,438
C2 (25)		$157								$157
C3 (26)		$4								$4
D (27)		$0								$0
(28)										
(29 total)		$2,839	$0							
Costa Mesa-4										
A (22)	$1,446	$11,566	$6,675			$0				$19,687
B (23)	$0	$1,763	$0			$0				$1,763
C1 (24)	$0	$2,045	$81			$0				$2,126
C2 (25)	$0	$223	$299			$1,235				$1,757
C3 (26)	$0	$5				$0				$5
D (27)	$0	$0	$329			$0				$329
(28)										
(29 total)	$1,446	$15,602	$7,384			$1,235				
Fullerton-3										
A (22)		$0			$0	$0				$0
B (23)		$282			$0	$0				$282
C1 (24)		$2,654			$0	$0				$2,654

	2008-09	2009-10	2010-11	2012-13	2013-14	2014-15	2015-16	2016-17		TOTAL
C2 (25)		$195			$1,151	$1,531				$2,877
C3 (26)		$5			$0	$0				$5
D (27)		$0			$0	$0				$0
(28)										
(29 total)		$3,136	$0		$1,151	$1,531				
Irvine-7										
A (22)	$6,639	$59,467	$29,710		$0	$0	$0	$0		$95,816
B (23)	$0	$602	$0		$0	$0	$0	$0		$602
C1 (24)	$0	$5,784	$278		$0	$0	$0	$0		$6,062
C2 (25)	$0	$1,171	$629		$3,064	$4,566	$1,956	$1,005		$12,391
C3 (26)	$0	$10	$0		$0	$0	$0	$0		$10
D (27)	$0	$0	$1,161		$0	$0	$0	$0		$1,161
(28)	$0	$210	$95		$44	$89	$0	$0		$438
(29 total)	$6,639	$67,244	$31,873		$3,108	$4,655	$1,956	$1,005		
Laguna Hills-2										
A (22)		$1,458	$841							$2,299
B (23)		$603	$0							$603
C1 (24)		$700	$27							$727
C2 (25)		$73	$103							$176
C3 (26)		$2	$0							$2
D (27)		$0	$111							$111
(28)										
(29 total)		$2,836	$1,082							
Laguna Woods-2	(two claims for 09-10, one under City of Anaheim)									
A (22)		$2,139	$1,072							$3,211
B (23)		$38	$0							$38
C1 (24)		$358	$18							$376
C2 (25)		$26	$41							$67
C3 (26)		$1	$0							$1
D (27)		$0	$50							$50
(28)										
(29 total)		$2,563	$1,181							

	2008-09	2009-10	2010-11	2012-13	2013-14	2014-15	2015-16	2016-17		TOTAL
Lake Forest-4										
A (22)	$1,718	$14,975	$8,273			$0				$24,966
B (23)	$0	$1,467	$0			$0				$1,467
C1 (24)	$0	$1,701	$66			$0				$1,767
C2 (25)	$0	$186	$246			$1,042				$1,474
C3 (26)	$0	$5	$0			$0				$5
D (27)	$0	$0	$270			$247				$517
(28)	$0	$121	$33			$25				$179
(29 total)	$1,718	$18,455	$8,888			$1,313				
Orange (city)-4										
A (22)		$2,117	$1,401		$0	$0				$3,518
B (23)		$305	$0		$0	$0				$305
C1 (24)		$2,867	$111		$0	$0				$2,978
C2 (25)		$210	$418		$1,333	$1,228				$3,189
C3 (26)		$5	$0		$0	$0				$5
D (27)		$0	$452		$0	$0				$452
(28)										
(29 total)		$5,504	$2,382		$1,333	$1,228				
Tustin-6										
A (22)	$2,121	$19,326	$13,279	$0	$0	$0				$34,726
B (23)	$0	$1,184	$0	$0	$0	$0				$1,184
C1 (24)	$0	$1,374	$54	$0	$0	$0				$1,428
C2 (25)	$0	$1,869	$860	$235	$1,181	$1,857				$6,002
C3 (26)	$430	$4	$0	$0	$0	$0				$434
D (27)	$0	$0	$651	$2,954	$130	$0				$3,735
(28)	$17	$334	$260	$7	$52	$100				$770
(29 total)	$2,568	$24,091	$15,104	$3,196	$1,363	$1,957				
Westminster-1										
A (22)		$0								$0
B (23)		$164								$164
C1 (24)		$1,540								$1,540
C2 (25)		$113								$113

	2008-09	2009-10	2010-11	2012-13	2013-14	2014-15	2015-16	2016-17		TOTAL
C3 (26)		$3								$3
D (27)		$0								$0
(28)										
(29 total)		$1,820	$0							
Co. of Orange-8										
A (22)	$19,296	$167,370	$112,241	$0	$0	$0	$0	$0		$298,907
B (23)	$0	$64,253	$0	$0	$0	$0	$0	$0		$64,253
C1 (24)	$0	$76,779	$3,572	$0	$0	$0	$0	$0		$80,351
C2 (25)	$0	$6,665	$7,146	$7,564	$32,472	$43,521	$25,120	$12,761		$135,249
C3 (26)	$0	$138	$0		$0	$0	$0	$0		$138
D (27)	$0	$0	$10,040		$0	$0	$0	$0		$10,040
(28)	$805	$6,672	$7,522	$215	$415	$350	$235	$138		$16,352
Offsets	$17,062	$216,414	$122,255	$5,962	$25,221	$33,663	$19,450	$9,893	$449,920	
(29 total)	$3,039	$105,463	$18,266	$1,817	$7,666	$10,208	$5,905	$3,006		
Newport Beach-5										
A (22)	$2,189	$17,812	$10,151		$0	$0				$30,152
B (23)	$0	$0	$0		$0	$0				$0
C1 (24)	$0	$2,180	$0		$0	$0				$2,180
C2 (25)	$0	$0	$0		$1,036	$1,338				$2,374
C3 (26)	$0	$0	$0		$0	$0				$0
D (27)	$0	$0	$0		$0	$0				$0
(28)	$0	$0	$0		$0	$0				$0
(29 total)	$2,189	$19,992	$10,151	$0	$1,036	$1,338				
FY TOTALS	$17,599	$277,073	$98,188	$5,013	$18,640	$27,325	$10,102	$5,166		$459,106
Activity Totals										
Activity A	$33,409	$296,230	$183,643	$0	$0	$0	$0	$0		$513,282
Activity B	$0	$72,578	$0	$0	$0	$0	$0	$0		$72,578
Activity C1	$0	$105,792	$4,518	$0	$0	$0	$0	$0		$110,310
Activity C2	$0	$11,356	$10,447	$7,799	$43,220	$60,178	$29,317	$14,921		$177,238
Activity C3	$430	$193	$0	$0	$0	$0	$0	$0		$623
Activity D	$0	$0	$13,925	$2,954	$130	$247	$0	$0		$17,256

	2008-09	2009-10	2010-11	2012-13	2013-14	2014-15	2015-16	2016-17		TOTAL
Indirect Costs	$822	$7,337	$7,910	$222	$511	$564	$235	$138		$17,739
Total not including offsets										$909,026

C-6.0 PUBLIC EDUCATION

C-6.1 Introduction

A robust public education and outreach program, currently "*H_2OC*" has been implemented by the Permittees since 2002 built upon a foundation of cooperative development of programs and materials, implementation at Countywide and city levels, and the validation of its success through the use of opinion surveys and other direct and indirect measures of public knowledge and behavior. The goal of this effort is to promote awareness of the condition of Orange County's creeks, rivers, streams and coastal waters, and adoption of behaviors that are protective of water quality.

C-6.2 Program Background

Public Awareness Surveys conducted in 2003, 2005, 2009, 2012 and 2015 (Surveys) indicated incremental positive changes in behavior and awareness. At the same time, however, there was emerging research that suggested that high levels of awareness did not always translate to better behavior (i.e. acceptance of associated "stormwater safe" behaviors by specific respondents). In recognition of this research, the *2012 Strategic Plan* (**Exhibit 6.1**), which is the basis of the current education and outreach approach, concluded that existing outreach efforts needed to be supplemented by targeted outreach to specific audiences using proven Community-Based Social Marketing (CBSM)[1] techniques to create long term engagement.

CBSM involves four basic steps:

1. Identifying barriers and motivators to an activity;
2. Developing a strategy that utilizes tools to leverage those barriers and motivators in order to affect behavior change;
3. Pilot the strategy; and
4. Evaluate the strategy and refine it for future implementation.

Research shows that CBSM works at the community level when the individual or organization interested in effecting behavior change is directly in contact with those people whose behavior requires change (**Exhibit 6.1**). The goal of CBSM techniques is to effect transition residents who are unaware of how their actions could contribute to water pollution to awareness of behaviors to engagement in the issue and ultimately, to participation in behaviors protective of water quality.

Overall, the retooled education program focuses on water quality protection best practices on a broad level – the *foundational campaign* – and specific behaviors on a smaller, more community-based level – *action campaigns*. This two-pronged approach provides the Permittees information on changes in behavior of Orange County residents over time that could help reduce water quality impacts to our creeks, rivers and the Pacific Ocean.

[1] McKenzie-Mohr, Doug & Smith, William (1999). *Fostering sustainable behavior: An introduction to community-based social marketing*. Gabriola Island, B.C.: New Society. (www.CBSM.com)

2017-18 Program Focus:

- Review and make any necessary updates to the *2012 Strategic Plan*

C-6.2.1 Foundational Campaign

The *foundational campaign,* branded *H_2OC*, comprises large-scale and/or general pollution prevention outreach efforts, with the goal of building overall awareness of pollution prevention and runoff reduction BMPs. *Foundational campaign* efforts entail a combination of media and direct outreach methods, including:

- Strategic placement of paid media and tracking of earned media (**Section 6.3.1.1**);
- General community outreach (e.g. speakers' bureau, workshops, events) (**Section 6.3.1.2**);
- Maintenance of the *H_2OC* website, Facebook page and materials (**Section 6.3.1.3**);
- Outreach to school-aged children (**Section 6.3.1.4**); and
- Permittee support & coordination (**Section 6.3.1.5**).

Effectiveness of *foundational campaign* elements will be assessed over time through continuation of public awareness surveys. Efforts are assessed annually against program goals and objectives; the primary goal is outreaching to 100% of the Orange County audience by achieving a minimum of 10 million impressions through media. Other methods for *foundational campaign* assessment include follow-through from paid media placement, website tracking and pre- and post-quizzes for outreach to school-age children. In addition, *foundational campaign* elements may support *action campaign* elements when needed, and thus be tied into *action campaign* metrics (e.g. obtaining sign-ups for an *action campaign* at an event). These efforts are detailed in **Section 6.3.1**.

C-6.2.2 Action Campaigns

H_2OC has produced increases in community awareness around stormwater issues, in addition to small changes in behavior through the use of large-scale information campaigns. This macro-level approach addresses permit requirements to reach 100% of the Orange County population, achieve 10 million impressions, and to document changes in knowledge and behavior in a verifiable and consistent way. Additionally, this approach sought to maximize equity of messaging and resources among both Regional Water Quality Control Board regions – Santa Ana and San Diego – and among 34 cities in 11 watersheds.

In tandem with the *foundational campaign* elements described in **Section C-6.2.1**, the Permittees will develop *action campaigns* that will encourage adoption of specific behaviors associated with a pollutant or pollutants of concern. *Action campaigns* will focus on a single discrete action or set of actions, encouraging residents to adopt behaviors associated with a specific pollutant or suite of pollutants of concern.

As described in **Section C-6.2**, *action campaigns* utilize CBSM techniques to simplify

messaging, reducing the chance for decision or action paralysis[2] that can arise from inundating residents with too many pollution reduction behaviors to adopt. Through simplification of *H_2OC* messaging, *action campaigns* focus on one high-impact action. Each *action campaign* focus is determined by assessing the following variables:

- ***Identification of key pollutants*** – the Permittees examine and prioritize key pollutants based on level of harm they pose to the environment and prevalence in water quality on an annual basis; this process would take the list of pollutants and refine it further to assess whether anthropogenic sources are likely and whether outreach could impact the presence of these pollutants;
- ***Determine return on investment (ROI)*** – from the list of prioritized pollutants of concern in the first step, the Permittees assess which behaviors would produce the largest ROI, predicted by assessing the number of people performing that action (i.e. prevalence) and the likelihood that those people would change that action. This step balances ease of performing a behavior (participation in which is determined by the Surveys) and the potential environmental impact; and
- ***Consideration of external opportunities and needs*** – the final step considers opportunities to leverage campaign messages and tactics with existing programs and/or messaging elsewhere in the Orange County Stormwater Program or by other agencies or groups.

Evaluation of each *action campaign* is built into the structure of the campaign itself, allowing the Permittees to conduct status checks and fine-tune efforts during the campaign as well as assess the campaign's overall success upon conclusion of efforts. Implementation of this assessment process is further described in **Section C-6.3.2** as it applies to the *Overwatering action campaign* for 2012-2017.

OVERWATERING ACTION CAMPAIGN

During 2016-17, the Permittees continued to focus on "overwatering" as the focus of the first *action campaign*. Unlike other activities or behaviors, overwatering can lead to several types of pollution through creation of runoff and mobilization of pollutants. From the 2012 Survey, it was clear that though overwatering is a pervasive issue most residents do not see a connection to their own watering habits. Sixty-seven percent (67%) of residents surveyed use sprinklers; however, few noticed wet pavement or pooling after irrigation. Additionally, almost half of respondents noted that higher water rates or fines would motivate them to adjust their sprinklers, suggesting that barriers to action might include a lack of knowledge concerning irrigation controllers and a lack of financial incentive to change watering habits.

The overwatering campaign aims to build residential engagement with *H_2OC* by encouraging residents to sign up for program messaging (i.e. tips to reduce overwatering) The ultimate goals is for residents to commit to making small changes to their irrigation habits or landscape to reduce runoff. The Permittees seek to demonstrate that the audience took an action to practice BMPs promoted by the *action campaign*. The annual objectives for

[2] This phenomenon was described in the "Jam Study" – Iyengar and Lepper (2000); this study is referenced and described further in Section 3.2.1 of Exhibit 6.1.

the campaign are to a) recruit 300 campaign followers through obtaining email information, and b) demonstrate that 100 people practiced a BMP. Assessment of the *Overwatering action campaign* to date is described in **Section C-6.3.2**.

C-6.3 Accomplishments

H_2OC serves as the umbrella campaign that supports and reinforces local efforts to address their specific needs, issues and requirements. This synergistic approach is designed to ensure that *H_2OC* presents a consistent, comprehensive and coordinated approach that increases the likelihood of positively influencing public knowledge and behavior. In addition, *H_2OC* leverages resources to conduct analyses of outreach success as part of the iterative development process. Accomplishments of the *foundational* and *action campaign* elements during the 2016-17 reporting year are detailed below.

C-6.3.1 Foundational Campaign

C-6.3.1.1 Paid & Earned Media

PAID MEDIA

Paid media is used to achieve a minimum of 10 million impressions and to provide information to the public more generally on behaviors and/or pollutants of concern, as well as to announce and advertise outreach events. In addition to paid media purchased by the Permittees, *H_2OC* also successfully leveraged an existing partnership with HCA – Used Oil to include their extensive advertising on proper disposal of used oil and oil filters. For more information on collection of used motor oil and oil filters through HCA, please see **Section C-5.2.3** and **Table C-5.11** of this report.

In addition to HCA advertisements, targeted advertisements were placed in print (OC Register and OC Register weekly papers) and online media outlets to increase visitation to the *Overwatering is Out* website (www.overwateringisout.org) and encourage participation in Cleanup Day 2016, as well as public meetings for the development of the South Orange County Water Quality Improvement Plan. Encouraging volunteer participation in *H_2OC* program events both increases awareness of pollution and involves the public in BMPs to prevent further pollution.

In order to address residential activities or behaviors associated with bacteria entering water ways, the Permittees also advertised proper pet waste disposal in the program flyer for the Orange County Police Canine Association (OCPCA) event on October 8, 2016. Each year, approximately 7,500 Orange County residents, OCPCA supporters and dog enthusiasts attend from throughout Orange County. The advertisement, "Poollution" encouraged residents in this target audience to pick up pet waste and prevent bacteria from entering our waterways.

Impressions for all paid advertising total **3,846,738** for the 2017-18 reporting period (**Table C-6.1**).

EARNED MEDIA

Earned media is generally defined as any unpaid publicity either through mainstream outlets like television, radio, print or social media outlets (e.g. blogs, Facebook, Twitter, and YouTube). In this case, earned media includes any unpaid news stories regarding water pollution prevention issues that appear as content in the various forms of media. A 2012 Study by the Nielsen rating agency[3] determined that ninety-two percent (92%) of consumers worldwide say that they trust earned media above all other forms of advertising and that trust in paid advertising has declined by approximately twenty-five percent (25%) since 1990. If information about water pollution prevention is within the content of the media programming, it is far more likely to be considered by the audience than a paid advertisement. As a result, *H₂OC* tracked earned media impressions throughout the 2016-17 reporting period; these impressions are reflected in the total impressions garnered by the program (**Table C-6.8)**. Impressions for earned media total **8,043,017** for the 2016-17 reporting period (**Table C-6.3**).

Earned media impressions are calculated using similar methodology to impressions garnered through advertising; however earned media impressions are high in quality because they are content driven. The Permittees will continue to dedicate resources to tracking earned media on stormwater, pollution prevention, water quality, pollutants of concern, low impact development, etc. during the 2017-18 reporting period.

SUMMARY OF *H₂OC* MEDIA IMPRESSIONS

Based on market research stressing the value of earned media, the Permittees sought to achieve at least 50% of media impressions from earned media during the 2016-17 reporting year. This goal was met with earned media comprising 68% of media impressions directly produced by the Program. Many of these news stories directly supported *Overwatering is Out* campaign messaging, including stories highlighting turf removal, water efficient practices, and low impact development. The Permittees will again seek to achieve at least 50% of media impressions from earned media during the 2017-18 reporting year. **Table C-6.8** and **Figure C-6.1** show that the countywide paid and earned media created **11,889,755 impressions** during the 2016-17 reporting period.

2017-18 Program Focus:

- Continue to achieve at least 50% of impressions through earned media to meet impression benchmarks and record public exposure to messaging in support of Program goals

C-6.3.1.2 Community Outreach

Community-based outreach has been a fixture of *H₂OC* since 2002 and included workshops

[3] 2012 Nielsen article, "Global Consumers' Trust in 'Earned' Advertising Grows in Importance" based on 2012 Nielson study of consumer 'trust' in earned and paid media sources (http://www.nielsen.com/us/en/insights/press-room/2012/nielsen-global-consumers-trust-in-earned-advertising-grows.html).

and participation in both youth and general audience events during the reporting period.

WORKSHOPS

H_2OC outreach to the business community and general public included workshops during the reporting period. In coordination with MWDOC and their member agencies, *H_2OC* held OCGF during the reporting period.

Workshops for the mobile service industry were more successful and had greater participation when coordinated through a sector-specific organization (e.g. 2010-11 workshop with the Carpet & Fabricare Institute (CFI)). Attempts to coordinate with the Power Washers of North America in 2013 were ultimately unsuccessful, as were further attempts to work again with CFI.

Based on the resource-intensive nature of coordinating workshops, the Permittees focused efforts on utilizing existing partnerships to complete workshops for the remaining public and business sectors as described previously and in the table below, reaching a total of **290 workshop attendees**.

Sector Reached	Workshop	Date
Mobile Service Industry		N/A
Manufacturing Facilities	IGP Compliance Workshop hosted by IGP Comply	February 22, 2017
Residential/Commercial Landscape Construction and Services Industry	University of California-Cooperative Extension Landscape Open House – for Landscapers, Residents, and Landscape Product Manufacturers	September 24, 2016
Residential and Community Activities	University of California-Cooperative Extension Landscape Open House – and for Landscapers, Residents and Landscape Product Manufacturers	September 24, 2016
	OC Garden Friendly events with The Home Depot; water conservation plants and devices, and general stormwater pollution prevention information	February 25, 2017 March 4, 2017 March 18, 20117 April 15, 2017
Residential and Commercial Construction Industry		N/A
Commercial, Distribution and Retail Sales Industry	OC Garden Friendly events with The Home Depot; water conservation plants and devices, and general stormwater pollution prevention information	February 25, 2017 March 4, 2017 March 18, 20117 April 15, 2017

OUTREACH EVENTS

The following is a list of outreach events in which the Program participated during the

2016-17 reporting period supplemental to individual Permittee event participation:

- August 13, 2016: La Pata Gap Connector Ribbon Cutting Ceremony
- September 17, 2016: Cleanup Day 2016
- October 1, 2016: South Orange County Water Expo
- March 29-30, 2017: Children's Water Education Festival
- April 21, 2017: City of Mission Viejo Environmental Fair

Through these events approximately **7,940 event participants** visited the *H_2OC* booth and/or received stormwater pollution prevention information. Impressions from in-person events, though much lower in quantity than advertising impressions, are of higher quality; booth visitors are able to ask questions, speak to Program representatives and take educational material home to show others.

CORPORATE ENVIRONMENTAL MANAGER OUTREACH

The Permittees conducted outreach to Corporate Environmental Managers during the permit term, building a list of 71 businesses in coordination with the Permittees. Most businesses that were contacted did not have an Environmental Manager or an environmental department within their organization; however, follow-up attempts were made and outreach materials were provided whenever possible.

Table C-6.4 shows that community outreach and events created **8,230 impressions** in the 2016-17 reporting period.

SUMMARY OF COMMUNITY OUTREACH

Participation in events allows the Permittees to have more direct contact with residents and answer questions regarding behaviors protective of water quality. Outreach at events integrates goals of both the *foundational* and *action campaigns*; events present opportunities to engage residents in *action campaigns*, especially when either targeted audience and messaging overlap or when events are general in nature.

2017-18 Program Focus:

- Continue to encourage residents and business representatives to sign-up for action campaign communication at events

C-6.3.1.3 Outreach Materials, *H_2OC* Website, & *H_2OC* Facebook Page

MATERIALS

The Principal Permittee, in collaboration with and under the direction of the NPDES Public Education Sub-Committee (Sub-Committee) annually review existing and develop, as needed, new countywide public and business education materials that effectively communicate the message of pollution prevention. Though several materials focus on specific pollutants of concern, stormwater topics (e.g. LID) or target specific audiences, at a

minimum, all of the program materials:

- Explain the difference between the storm drain and sanitary sewer system, and emphasize that water in the storm drain does not receive treatment before entering our waterways;
- Focus on specific pollution-causing behaviors and address them directly to increase the likelihood of changing those behaviors and reducing pollution;
- Emphasize the relevant impact of stormwater pollution to the target audience;
- Include a positive alternative to pollution-causing behaviors;
- Tailor the personality, focus and depth of program messages appropriately for each audience and venue; and
- Include the *H₂OC* moniker[4].

H₂OC actively maintains an extensive library of brochures, BMP factsheets, posters, BMP stickers (restaurant and automotive maintenance) and other materials which provides resources for Permittee outreach to target audiences within their jurisdictions. Each year, the Sub-committee determines if new materials are needed to address behaviors based on interactions with the public during inspections or pollution response, and at public counters. During the 2015-16 reporting period, the Public Education Sub-committee conducted a thorough review of existing materials and made recommendations for updates which will be implemented in a prioritized fashion over subsequent reporting periods, in tandem with a concerted effort to strengthen *H₂OC* branding. Materials are made available to the public through events, city counters, presentations, and online at www.H2OC.org.

As discussed in **Section C-6.2.1**, the program underwent a strategic re-branding of *Project Pollution Prevention* during the 2012-13 reporting year, including changing the program name to *H₂OC* and the overall look and feel of materials to reflect the new logo graphics and colors. The program website link also changed from www.ocwatersheds.com/publiced to H2OC.org, directly associating the program message with the website.

For a complete list of materials developed by *H₂OC* available to Permittees and other organizations, please see **Table C-6.5** of this report.

H₂OC WEBSITE

Residents increasingly seek information regarding pollution prevention from the internet. As a result, the Permittees continue to maintain a website dedicated to public education; the site includes informational pages, a Kids' Corner, brochures, video clips and options to sign up for regular program updates.

The website – H2OC.org – garnered a total of **3,527 page views** during the reporting period (**Table C-6.8**).

[4] Not all materials have been updated since the transition from Project *Pollution Prevention* to *H₂OC*; some materials still include the *Project Pollution Prevention* logo.

H_2OC FACEBOOK PAGE

The *H_2OC* Facebook page ("Orange County Stormwater Program") was launched in January 2013 to support both the *foundational* and *action campaigns*. One of the benefits of using social media as an outreach tool is that there are built-in metrics to determine total number of impressions as well as to assess the message effectiveness. Metrics utilized by Facebook include the following:

- *Page likes* – the number of Facebook members to like a page, which allows select page posts to appear in their feed.
- *Post likes* – the number of Facebook members to like a specific post
- *Post comments* – the number of Facebook members to comment on a specific post
- *Post shares* – the number of Facebook members to share a specific post, which would result in that post appearing in their friends' feeds
- *Post reach* – the total number of Facebook members to have seen a specific post
- *Page reach* – the total number of exposures to page and/or posts from that page

These metrics are helpful in assessing different aspects of a social media campaign. For example, a large number of *post likes* can indicate that a particular post is of interest to the Facebook audience, a large number of *post comments* might indicate that a particular post has been successful at engaging the Facebook audience, and a large number of *post shares* might indicate that the readers found the post interesting enough to want to share with their Facebook friends. However, as *page reach* represents the total number of exposures to a page's message (through actual visits to the page or viewing of page posts), it is the best metric to use when determining total impressions. During the 2016-17 reporting year, the *H_2OC* Facebook had **411,267 page and/or post exposures** (i.e. *page reach*), an increase of 46% over the prior reporting period (**Table C-6.8**).

SUMMARY OF OUTREACH MATERIALS, H_2OC WEBSITE & H_2OC FACEBOOK PAGE

Development and provision of educational materials is an important but static part of the program; however, maintaining an informative website and Facebook page that encourage participation in BMPs protective of water quality has become increasingly important.

2017-18 Program Focus:

- Continue to increase engagement with *H_2OC* Facebook audience
- Update select outreach materials per Public Education Sub-committee review

C-6.3.1.4 Outreach to School-age Children

Educating school children about stormwater and urban runoff pollution is critical to the long-term success of the Orange County Stormwater Program. Information provided to students in school is often brought into the home and shared with parents and other relatives. The 2012 Survey indicated that forty-six percent (46%) of adults with school-aged children at home received information about water pollution prevention.

Children are also excellent watchdogs when it comes to their parents' activities, and they are likely to try to correct a parent's polluting behavior. In the 2012 Survey, parents of students who provided them with water pollution prevention information were more likely than those without kids to engage in the seven "stormwater safe" behaviors. *H_2OC* continued to implement a school outreach program throughout the 2016-17 reporting year; the programs implemented and/or supported by *H_2OC* are detailed below and in **Table C-6.6**.

DISCOVERY SCIENCE CENTER / MWDOC

In 2016-17, the Program provided **13,024 fifth grade students** a workbook produced in coordination between *H_2OC* and the Discovery Science Center in 2009. The workbook meets California Science Content Standards and focuses on water pollution prevention. The workbooks were provided to students in support of the MWDOC's program at Discovery Science Center to both outreach to students and bolster the existing relationship with MWDOC.

In addition to the workbooks, the Orange County Stormwater Program has an interactive water pollution prevention game on its website in the "Kid's Corner" section. The website is promoted to the school children and teachers on the workbook provided at the Discovery Science Center.

PACIFIC MARINE MAMMAL CENTER (PMMC)

The PMMC initiated the Pinniped Pollution Project program in 2009[5], focused on watershed education and pollution prevention. The curriculum includes pollutant transport and the effects of trash and other pollutants on the marine environment and its inhabitants. The program was initially developed in partnership with *H_2OC*, including curriculum content and the provision of maps and other materials.

The PMMC is located in Laguna Beach, but serves students from throughout the County. During the 2016-17 reporting year, the Pinniped Pollution Project program was presented to **3,567 Orange County students**. Additionally, *H_2OC* worked with Orange County 4-H to provide workbooks for each of the students involved with the program, and have lent two *H_2OC* and one Orange County 4-H Enviroscape models to the Pacific Marine Mammal Center for use in their education program.

CHAPMAN UNIVERSITY OC WATERSHED EDUCATION AMBASSADOR PROGRAM (OC WEAP)

In 2012, the Program partnered with Chapman University to develop and implement OC WEAP, which provides water pollution prevention and watershed outreach to fifth grade elementary school students. Through this pilot program, Principal Permittee staff developed a curriculum incorporating the California Science Content Standards for fifth grade and trained Chapman University students on presenting this information in a fun

[5] Impressions garnered through the PMMC Pinniped Pollution Project were not included in the 2009-10 and 2010-11 reporting years. The 2011-12 report corrected this oversight.

and informative way. During the reporting period, the Chapman University students presented the watershed curriculum to **147 fifth grade students** at various elementary schools.

Additionally, children participating in the program are asked to take a short quiz both before and after the watershed curriculum is presented by the Chapman University students (pre- and post-surveys). During the reporting period, the average pre-test score was 68%, while the average post-survey score was 81% (a 19.67% increase in correct responses), indicating successful implementation of the program.

Table C-6.6 shows that outreach to school-age children created 16,738 impressions for the 2016-17 reporting year.

SUMMARY OF OUTREACH TO SCHOOL-AGE CHILDREN

It is the goal of *H_2OC* and the Public Education Sub-committee to continue to increase support of watershed education and pollution-prevention school programs in Orange County. Support comes in two primary forms – through collaboration with an organization to design and implement a school program or by supporting existing school programs that meet necessary standards and permit requirements (e.g. outreach about pollution prevention BMPs). Existing programs may have metrics for tracking student learning or they may track participation only; the Permittees will work through existing partnerships to build metrics into school outreach programs wherever possible (e.g. pre-/post-tests).

2017-18 Program Focus:

- Expand OC WEAP to other colleges and universities within the County.
- Pursue grant opportunities to support funding of additional youth outreach activities.

C-6.3.1.5 Permittee Support & Coordination

H_2OC is annually revised per permit requirements and assessment results under the aegis of the Sub-committee. The Sub-Committee comprises Permittees and educational groups in Orange County and provides direction and oversight on plan development and implementation. The goal of the Sub-Committee is to provide regional consistency and oversight for the stormwater public education efforts. The Sub-Committee met monthly during the 2016-17 reporting period.

Please reference **Section C-2.3.1 –** Management Framework for a detailed discussion of the Committee structure.

POLLUTION HOTLINE

The County as Principal Permittee also manages the countywide 24-hour bilingual water

pollution reporting hotline number, 1-877-89SPILL, which handles water pollution complaints as well as inquiries about stormwater and public education materials. During the reporting period the hotline received 168 water pollution calls. See **Section C-10.2** of this report) for a summary of pollution response activities.

Summary of Public Education Program Impressions

Permittee impressions individually total 74,671,481 during the 2016-17 reporting period (see **Table C-6.7**).

C-6.3.2 Action Campaign

As described in **Section C-6.2.2** the Permittees began development and implementation of the first *action campaign* focused on curbing overwatering during the 2012-13 reporting period (year 1) and have continued these efforts in subsequent reporting periods. *Overwatering* a*ction campaign* efforts are focused on engaging residents in the campaign and demonstrating that the audience started taking actions to practice BMPs. During the reporting period, these efforts have included:

- Collaboration with other agencies (**Section C-6.3.2.1**);
- Maintenance of the overwateringisout.org website (**Section C-6.3.2.2**);
- Encouraging engagement and tracking sign-ups (**Section C-6.3.2.3**); and
- Tracking behavior change occurring as a result of the *Overwatering action campaign* (**Section 6.3.2.4**).

C-6.3.2.1 Collaboration with Other Agencies

Overwatering is a topic of interest from both water quality and water use efficiency perspectives. Throughout development of the *Overwatering action campaign*, the Permittees have engaged the MWDOC and their member agencies to develop messaging, provide a central location for information about runoff reduction, proper irrigation techniques and rebates (overwatering.org), and to partner in spreading awareness of the program.

During the FY 2016-17 reporting period, the Permittees continued to partner with MWDOC and their member agencies, as well as the UCCE, in implementing the OC Garden Friendly program (OCGF), which supports the *Overwatering action campaign* by encouraging Orange County residents to install climate-appropriate and low-water-use plants in outdoor spaces and gardens. In implementing OCGF, the following actions were taken during the reporting period:

- Held four highly advertised OCGF events in partnership with The Home Depot in the cities of Costa Mesa, Huntington Beach, and Lake Forest;
- Promoted OCGF events in the OC Register, on the *H_2OC* Facebook page, and on overwateringisout.org;
- Worked with Home Depot to place materials that identify rebatable water efficient products and plants in select stores;
- Utilized a photo prop standee of program mascot, Gnorman the Gnome, to increase

booth visitation and engagement (**Figure C-6.2**);
- Distributed the "Orange County Garden Friendly Planning & Plant Guide" at OCGF events (**Figure C-6.4**).

The Permittees will evaluate continued implementation of the OCGF Program in tandem with a review of the Overwatering is Out campaign during the 2017-18 reporting period.

C-6.3.2.2 Overwatering Website

In addition to reformatting the public education program website to be both reflective of the change in program name and graphics, the Permittees built a microsite specifically for the *Overwatering action campaign* – overwateringisout.org. This website serves three main purposes: (1) it is a platform for residents to sign-up to receive program messages and tips; (2) it serves as a "one stop shop" for both water use efficiency and runoff reduction information, with biweekly blog posts covering a wide range of related topics; and, (3) it operates as a forum for residents to provide feedback and see residents who have already implemented BMPs successfully.

Incentives are important to draw people to the website. During the 2014-15 reporting period, the Permittees developed and produced "Gnorman Approved" yard signs and "Water Champion" stickers that were distributed for free to residents that took actions to reduce their water use, thereby limiting or altogether eliminating the runoff leaving their property (**Figure C-6.3**). In order to obtain a yard sign and/or sticker, a resident must select the action they took from a list of preapproved activities on the website (with photographic evidence required in some instances) and opt-in to receive additional tips from the biweekly campaign emails. Thus, the yard signs and stickers provide the program with a way to track behavior change, one of the primary program evaluation metrics (**Section C-6.3.2.4**). Additionally, the website landing page includes an action map that allows residents to share what they have done to help stop overwatering in their neighborhood (**Figure C-6.6**). During the reporting year, the www.overwateringisout.org website garnered a total of **39,262 page views**.

C-6.3.2.3 Encouraging Engagement & Tracking Sign-ups

Through tracking software, *H_2OC* is able to track sign-ups through the Overwatering action campaign and *H_2OC* websites and from events. Additionally, *H_2OC* built in tracking of residents over time to provide the Permittees the ability to follow up with individuals on adoption of BMPs.

An extensive email distribution system has been developed to distribute tailored correspondence based on reported watering efficiency; residents who report high levels of efficiency will be encouraged to adopt more intensive BMPs versus a resident who has reported not being efficient. Email correspondences are distributed to residents as they "opt-in" to the program and on a regular basis to those already signed-up through the website and events. Email opt-ins are tracked by zip code so that targeted outreach can be undertaken in areas with low opt-in numbers; as of June 30, 2017, **3,918 Orange County residents** had opted in to receive *Overwatering action campaign* emails (see **Figure C-6.5**).

During the reporting period, Orange County residents received **4,126 emails** as a result of opting in to the *Overwatering action campaign*.

During the 2015-16 reporting period, *H_2OC* launched a *Drought, Camera, Action* photo contest to increase program visibility and engagement and to provide an arena for residents to share what they have done to save water and reduce runoff in their homes. The contest was repeated during the 2016-17 reporting period and renamed, *Plants, Camera, Action* due to the heavy rains improving drought conditions (**Figure C-6.7**). The contest ran from, which ran from March to May, garnered **137 photo submissions** (over three times more than the prior reporting period), **645 photo contest votes**, and **53 comments**. At the conclusion of the contest, three winners were selected (for People's Choice, Most Beautiful Photo of a California-Friendly Plant, and Most Beautiful Photo of a California-Friendly Landscape awards) and their photos were published in the OC Register.

C-6.3.2.4 Tracking Behavior Change

The ultimate goal of the *Overwatering action campaign* is to encourage residents to adopt behaviors associated with outdoor water use consumption to both conserve water and minimize runoff. The Permittees had previously tracked this behavior change by recording the number of smart sprinklers and rain barrels purchased at OCGF events; however, this information is not always made available by the venue partner. Instead, behavior change is now tracked through information obtained by the "Gnorman Approved" yard sign and "Water Champion" sticker program. During the reporting period, a total of **160 runoff-reducing behaviors** were adopted by Orange County residents, for a total of 817 runoff-reducing behaviors adopted to date.

SUMMARY OF OVERWATERING ACTION CAMPAIGN

The *Overwatering action campaign* has metrics built into the fabric of the campaign that have allowed the Permittees to evaluate the campaign's success based on the following two annual objectives: (1) recruit 300 campaign followers through obtaining email information, and (2) demonstrate that 100 people practiced a BMP. The Permittees have exceeded both objectives during the reporting period, with an increase of 1,258 email opt-ins received and 160 people identified as having adopted a runoff-reducing behavior.

2017-18 Program Focus:

- Conduct evaluation of the *Overwatering action campaign*
- Begin to develop action campaign focused on trash reduction

C-6.4 Assessment

The principal means of both evaluating the effectiveness of *H_2OC* and informing the ongoing development of the campaign is the use of scientific telephone public opinion surveys. The Program conducted a fifth public opinion survey (2015 Survey) in September 2015, detailed results of which were summarized in **Section C-6.4.1** of the 2015-16 Unified Annual Report.

Annual analyses of outreach efforts for both the foundational and action campaigns are detailed in each sub-section of this report and summarized below.

C-6.4.1 Public Awareness Surveys

It was determined during the 2002-03 reporting period that the development of a specific methodology for future Orange County public awareness surveys was paramount to ensuring the scientific defensibility of results in identifying changes in public knowledge and behavior. The resultant study, designed by a leading expert in the field with oversight from the Principal Permittee and Public Education Sub-Committee was conducted in May 2003 (2003 Survey). This initial survey established the baseline knowledge level and willingness of residents to participate in pollution preventative behaviors.

Mid-way through the Third Term permit cycle, a subsequent (and almost identical) survey was conducted in November of 2005 (2005 Survey). The 2005 Survey served as an assessment of improvements in public knowledge of stormwater issues and whether or not Orange County residents made any behavioral changes as a result of the outreach campaign. Results from the 2005 Survey showed an increase in awareness of stormwater issues for the majority of questions asked, indicating that the public information campaign on stormwater and urban runoff had increased awareness.

To assess the progress of Project Pollution Prevention (predecessor to H_2OC) at the start of the Fourth Term Permits and assist with future program planning, a third survey was conducted in late 2009 (2009 Survey). Responses on the 2009 Survey indicated incremental and statistically significant changes in behavior and increases in awareness since the 2005 Survey.

In May 2012, the Program conducted a fourth public opinion survey (2012 Survey) utilizing some questions from across the previous three surveys to show patterns in knowledge and behavior over time, and introducing new questions to target specific behaviors, potential motivators or barriers to those behaviors and involvement of residents within their community. Responses on the 2012 Survey showed that the number of respondents who have participated in "stormwater safe" activities increased to the highest percentage of total respondents to date, with parents of students who provided them water pollution prevention information being most likely to engage in those activities.

In September 2015, the Program conducted a fifth public opinion survey (2015 Survey), again utilizing some questions from across the previous four surveys to show patterns in knowledge and behavior over time. As with the previous four surveys, the 2015 Survey demonstrated increases in both knowledge and awareness. Of particular significance, for the first time since implementation of the public opinion surveys in 2003, survey respondents reported water issues / the drought as the number one issue facing their community, higher even that public safety or jobs and the economy. Furthermore, 43.3% reported that drought conditions were the greatest motivator for reducing the amount of time they use their sprinklers.

C-6.4.2 Foundational Campaign

In addition to general pollution-prevention outreach and messaging, *H_2OC* advertising during the reporting period focused on increasing engagement in the *Overwatering action campaign*. Of the total 87,010,037 impressions created by the Program during the reporting period, 981,574 directly supported the *Overwatering action campaign*.

C-6.4.3 Action Campaign

During the reporting period, the Permittees continued implementation of the *Overwatering action campaign* for the fifth year. Engagement in the campaign slowed during the latter half of the reporting period, likely related to the heavy storms and abatement of drought conditions. As the drought was identified as a significant motivator for action in the 2015 Survey, the Permittees will evaluate the *Overwatering action campaign* in the 2017-18 reporting period to determine next steps. The Permittees will also begin to develop a second action campaign that will target trash.

C-6.4.4 Program Impressions

Table C-6.8 shows that all impressions created by both the countywide public education program and jurisdictional programs total **87,010,037** during the 2016-17 reporting period.

Headline Indicator – Number of Impressions: The public education program created 87,010,037 million impressions during the 2016-17 reporting period. One of the goals of the public education program is to target 100% of the residents of Orange County. Orange County has a population of approximately 3 million people. The total impressions earned greatly exceed the program goal. Additionally, 981,574 of those impressions directly supported the Overwatering action campaign, which during the reporting period was able to effect behavior change in the form of BMP adoption by 160 Orange County residents.

C-6.4.5 Program Awards

During the reporting period, *H_2OC* was recognized for its achievements and in particular for its *Overwatering is Out action campaign* through receipt of the following award:

- *2016 Excellence in Communications* – National Association of Flood and Stormwater Management Agencies (NAFSMA)

C-6.5 Summary

H_2OC successfully achieved and exceeded the goal of 12 million impressions (4 times the Orange County population) and met compliance with the Santa Ana Region requirement to achieve a minimum of 10 million impressions through media. These impressions were delivered in a variety of formats, including print media, online media, social media, and in-person events, and supported efforts to grow the *Overwatering is Out action campaign*.

During its fifth year of implementation, the *Overwatering is Out action campaign* was recognized for its achievements, garnering a prominent award from NAFSMA which lauded the campaign for its novel use of automated marketing tools to deliver personalized content. *H_2OC* will continue to implement the countywide effort, will evaluate appropriate next steps for the *Overwatering action campaign* in light of the improved drought conditions, and will begin to develop a new action campaign that will aim to reduce trash.

Table C-6.1: Paid Media Advertising

Media Type	Media Outlet	Advertisement Topic	Run Date(s)	Impressions	
				SAR	SDR
Print	OC Register	Encourage Participation in Events for Cleanup Day 2016	September 2016	186,368	46,592
Print	OC Register Weekly Papers	Encourage Participation in WQIP Public Meeting	September 2016	0	658,434
Print	OCPCA Event Program	Proper Disposal of Pet Waste	October 8, 2016	6,000	1,500
Print	OC Register	Encourage Participation in Spring OC Garden Friendly Events	February – March, 2017	61,782	15,446
Print	OC Register	Advertise and Encourage Participation in Overwatering is Out Photo Contest	April – May, 2017	411,906	102,977
Print	OC Register	Drive Traffic to overwateringisout.org and Increase Awareness of Yard Sign Program	June 2017	103,120	25,780
Online	Google Adwords	Drive Traffic to overwateringisout.org and Increase Awareness of Yard Sign Program	June 2017	201,219	50,305
			TOTAL	**970,395**	**901,034**

Impressions for print media are based on factors such as attendance numbers, readership, and newsstand numbers provided by the suppliers of advertising based on scientific market research. The newspaper industry standard for determining readership is generally 2.5 to 3.5 times circulation; based on the theory that more than one person reads an individual issue. When specific readership numbers are not provided, a conservative estimate of 2.5 times circulation has been used. Impressions for the OCPCA event program did not include a multiplier as all family members were likely in attendance and would receive their own. For online and regional advertising division between regions is divided between regions by 80% Santa Ana Region and 20% San Diego Region based on population. Impressions for billboards located on major commuter freeways (i.e. the San Diego Freeway (405) and the Artesia Freeway (91)) were divided similar to online media with 80% allocated to the Santa Ana Region and 20% to the San Diego Region. All other billboard impressions were attributed to the specific region in which they were placed.

Table C-6.2: OC HCA Used Oil Advertising

Type of Advertisement	Impressions	
	SAR	SDR
DMV Advertisements	1,200,000	300,000

Google Adwords	380,247	95,062
TOTAL	**1,580,247**	**395,062**

Table C-6.3: Earned Media Advertising

Region	Impressions
SAR	6,434,414
SDR	1,608,603
TOTAL	**8,043,017**

Table C-6.4: Impressions Created by Community Outreach

Program	Type of Program	Estimated Number of Impressions
Workshops	Business & Residential	**290**
H_2OC Events	Outreach Events	**7,940**
TOTAL		**8,230**

Table C-6.5: Countywide Educational Materials

Public Education Item	Pollutant(s) Addressed	Activities Addressed
Brochures		
"Orange County Garden Friendly Planning & Plant Guide"	Overwatering	Water conservation, California-friendly landscaping
"Tips to Prevent Overwatering"	Overwatering, pesticides/fertilizer	Water conservation, use of IPM techniques and California-friendly landscaping
"The Ocean Begins At Your Front Door" – English, Spanish, Vietnamese	Household hazardous waste, trash, motor oil, chlorine, overwatering, green waste, dirt, pesticides/fertilizer, pet waste	Household maintenance and activities (i.e. hosing driveway), automotive maintenance and washing, pool maintenance, landscape and gardening, trash disposal, pet care
Homeowners Guide for Sustainable Water Use Pamphlet	Household hazardous waste, trash, motor oil, chlorine, overwatering, green waste, dirt, pesticides/fertilizer, pet waste	Preventing urban runoff through low impact development in residential properties, water conservation, use of IPM techniques and California-friendly landscaping, general water pollution prevention methods
"Help Prevent Ocean Pollution: Your Local Used Oil Collection Center" (North, South & Central) – English, Spanish, Vietnamese	Motor Oil	Automotive Maintenance, Disposal of Used Motor Oil
"Help Prevent Ocean Pollution: Tips for Pool Maintenance" – English, Spanish	Chlorine, runoff	Pool Drainage/Maintenance
"Help Prevent Ocean Pollution: Tips for Landscape and Gardening" – English, Spanish	Fertilizer, pesticide, dirt, overwatering, green waste	Landscape maintenance, pesticide/fertilizer application, proper disposal of household hazardous waste and green waste
"Help Prevent Ocean Pollution: Tips for Pet Care" – English, Spanish	Surfactants, chemicals, pet waste	Proper disposal of pet waste, proper pet bathing techniques
"Help Prevent Ocean Pollution: Household Tips" – English, Spanish	Household hazardous waste, pet waste, pesticides/fertilizers, overwatering, green waste, surfactants, motor oil, trash	Household maintenance and activities (i.e. hosing driveway), automotive maintenance and washing, pool maintenance, landscape and gardening, trash disposal, pet care
"Help Prevent Ocean Pollution: Tips for Horse Care" – English, Spanish	Bacteria, sediment	Large animal care and maintenance

Table C-6.5: Countywide Educational Materials (continued)

"Help Prevent Ocean Pollution: Proper Disposal of Household Hazardous Materials" – English, Spanish, Vietnamese	Household hazardous wastes	Proper identification and disposal of household hazardous wastes
"Help Prevent Ocean Pollution: Maintenance Practices for Your Business" – English, Spanish	Fertilizer, pesticides, green waste, overwatering, trash, toxic substances	Landscape maintenance, proper application of pesticides and fertilizers, trash management, proper storage of materials
"Help Prevent Ocean Pollution: Tips for Using Concrete and Mortar" – English, Spanish	Concrete and mortar, slurry	Proper preparation, use, clean up and disposal of concrete and mortar
"Sewage Spill Reference Guide"	Sewage spills from overflows, grease buildup, structure problems and/or infiltration and inflow	Proper prevention of and identification and response to sewage spills
"Responsible Pest Control"	Pesticides	Proper identification of pests, selection of least toxic chemical, proper pesticide application, spill prevention and proper storage and disposal of pesticides (use of Integrated Pest Management (IPM) techniques)
"Help Prevent Ocean Pollution: Residential Pool, Landscape and Hardscape Drains" – English, Spanish	Chlorine, chemicals, pet waste, green waste, overwatering, motor oil and vehicle fluids	Pool maintenance, spill prevention, proper disposal of household hazardous waste, proper disposal of pet waste, proper use of pesticides and fertilizers, proper vehicle maintenance
"Help Prevent Ocean Pollution: Proper Use and Disposal of Paint" – English, Spanish	Paint, chemicals	Proper use, storage and disposal of paint
"Help Prevent Ocean Pollution: Tips for Home Improvement Projects" – English, Spanish	Construction debris, concrete, paint, household hazardous waste, sediment	Proper storage of construction materials, recycling of construction materials, proper disposal of household hazardous waste, proper erosion and spill control
"Help Prevent Ocean Pollution: Children's Coloring & Activity Book"	Trash, pet waste, motor oil, green waste	Litter control, proper disposal of pet waste, proper spill clean up (e.g. use of cat litter)
"Help Prevent Ocean Pollution: Tips for Carwash Fundraisers"	Surfactants, metals, motor oil, toxic substances	Proper BMPs for carwashing activities (i.e. containment and encouragement of infiltration)

Table C-6.5: Countywide Educational Materials (continued)

"Help Prevent Ocean Pollution: Tips for Maintaining a Septic Tank System	Grease, trash, pesticides	Proper maintenance of septic tanks
"Help Prevent Ocean Pollution: Tips for the Automotive Industry" – English, Spanish	Motor oil, metals, surfactants, toxic substances, dirt	Proper maintenance and washing practices for automobiles, proper storage and disposal of automotive liquids and materials
"Help Prevent Ocean Pollution: Tips for the Automotive Industry"	Motor oil, metals, surfactants, toxic substances	Proper maintenance and washing practices for automobiles and automotive detailing materials, proper storage and disposal of automotive liquids and materials
"Help Prevent Ocean Pollution: Tips for the Home Mechanic"	Motor oil, metals, surfactants, toxic substances	Proper maintenance and washing practices for automobiles and automotive detailing materials, proper storage and disposal of automotive liquids and materials, use of used oil collection centers
"Compliance Best Management Practices for Mobile Businesses"	Surfactants, toxic substances, dirt, metals	Mobile car washing and detailing, proper high pressure cleaning, proper storage and disposal of washwater from mobile automotive detailing, washing and carpet and fabric cleaning
"Educational Program Opportunities for Teachers and Students"	General	Programming available to Orange County teachers
"Help Prevent Ocean Pollution: A Guide for Food Service Facilities" – English, Spanish, Vietnamese	Grease, food waste, trash	Proper food waste disposal, proper grease and oil disposal, proper procedures for spill cleanup, proper maintenance of trash dumpsters, proper floor mat cleaning, proper wastewater disposal
"Help Prevent Ocean Pollution: A Guide to Prevent Overwatering"- English	General	Proper landscape irrigation techniques to prevent overwatering, potential for pollutant transport in runoff from properties; encourage the use of California-friendly plant palates to reduce water demand

Table C-6.5: Countywide Educational Materials (continued)

Posters		
"Help Prevent Ocean Pollution: A Guide for Food Service Facilities" BMP Poster – English, Spanish	Grease, food waste, trash	Proper food waste disposal, proper grease and oil disposal, proper procedures for spill cleanup, proper maintenance of trash dumpsters, proper floor mat cleaning, proper wastewater disposal
Auto Repair BMP Poster – English, Spanish	Motor oil, metals, surfactants, toxic substances	Proper maintenance practices for automobiles and automotive detailing materials, proper storage and disposal of automotive liquids and materials
Gas Stations BMP Poster – English, Spanish	Motor oil, metals, gasoline, surfactants, toxic substances	Proper maintenance of gas stations and BMPs for washing of gas station areas, proper disposal of toxic substances
Other Materials		
"Help Prevent Ocean Pollution: A Guide for Food Service Facilities" CD-Rom	Grease, food waste, trash	Proper food waste disposal, proper grease and oil disposal, proper procedures for spill cleanup, proper maintenance of trash dumpsters, proper floor mat cleaning, proper wastewater disposal
"Help Prevent Ocean Pollution: A Guide for Food Service Facilities" Floor mat sticker	Grease, food waste, trash	Proper floor mat cleaning
"Help Prevent Ocean Pollution: A Guide for Food Service Facilities" Dumpster sticker	Grease, food waste, trash	Proper maintenance of trash dumpsters
"Help Prevent Ocean Pollution: A Guide for Food Service Facilities" Outdoor maintenance sticker	Grease, food waste, trash	Proper maintenance of trash dumpster, proper wastewater disposal
"Help Prevent Ocean Pollution: A Guide for Food Service Facilities" Oil & grease disposal sticker	Grease, food waste, trash	Proper food waste disposal, proper grease and oil disposal, proper procedures for spill cleanup

Note: Other materials not included in this table are available and distributed through *H_2OC*. These materials are general outreach in nature and advertise the County website www.ocwatersheds.com. Most materials also include the 24-hr hotline reporting number as well.

Table C-6.6: Impressions Created by School Outreach

Program	Type of Program	Estimated Number of Student Impressions
Discovery Science Center / Municipal Water District of Orange County Partnership	Student workbooks	13,024
Pacific Marine Mammal Center	Pinniped Pollution Prevention/Watershed Education	3,567
OC Watershed Education Ambassador Program	Water Cycle/Watershed Education/Pollution Prevention	147
TOTAL		**16,738**

Table C-6.7: Impressions Created by Each Permittee

Permittees	Estimated Number of Impressions
Aliso Viejo	300,600
Anaheim	1,785,000
Brea	255,120
Buena Park	15,994,298
Costa Mesa	213,215
Cypress	1,800,000
Dana Point	682,729
Fountain Valley	89,055
Fullerton	130,000
Garden Grove	659,995
Huntington Beach	396,988
Irvine	771,094
La Habra	92,000
La Palma	1,412,842
Laguna Beach	220,023
Laguna Hills	113,395
Laguna Niguel	364,517
Laguna Woods	26,976
Lake Forest	672,800
Los Alamitos	285,040
Mission Viejo	5,000,000
Newport Beach	850,255
Orange	36,000,000
Placentia	52,000
Rancho Santa Margarita	316,500
San Clemente	3,684,502
San Juan Capistrano	358,569
Santa Ana	765,320
Seal Beach	62,145
Stanton	35,000
Tustin	332,151
Villa Park	3,500
Westminster	298,632
Yorba Linda	79,000
County of Orange/OCFCD	568,220
Total	**74,671,481**

Table C-6.8: Total Impressions Created by Public Education Program

Impressions Created	Estimated Number of Impressions
Countywide Paid and Earned Media Impressions	**11,889,755**
Community Outreach	**8,230**
School Programs	**16,738**
Website Impressions	**3,527**
Facebook Impressions	**411,267**
Total Permittee Impressions	**74,671,481**
Overwatering action campaign* Impressions	**9,039**
Grand Total	**87,010,037**

*This total represents impressions in addition to those *foundational campaign* impressions that supported the *Overwatering action campaign*.

Table C-6.9: Current and Potential Outcome Levels (Public Education)

Public Education Program	Effectiveness Assessment Outcome Levels					
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
	Document Stormwater Program Activities	Raise Awareness	Change Behavior	Load Reduction	Runoff Quality	Receiving Water Quality
Creating Impressions	✓ Number of impressions	✓ Surveys show change in knowledge of pollution preventative activities	✓ Surveys show change in willingness to participate in pollution preventative activities	✓ Household hazardous waste collected		
		✓Number of website page views		✓ Runoff-reducing BMPs implemented		
Public Participation	✓ Number of workshops	✓ Surveys show change in knowledge of pollution preventative activities	✓ Surveys show change in willingness to participate in pollution preventative activities			
	✓ Conduct Events	✓ Surveys show change in knowledge of pollution preventative activities	✓ Participation in events	✓ Trash and debris recovered		

Key:

✓ = Currently Achieved Outcome Level

P = Potentially Achievable Outcome Level

Figure C-6.1: Paid and Earned Media Impressions

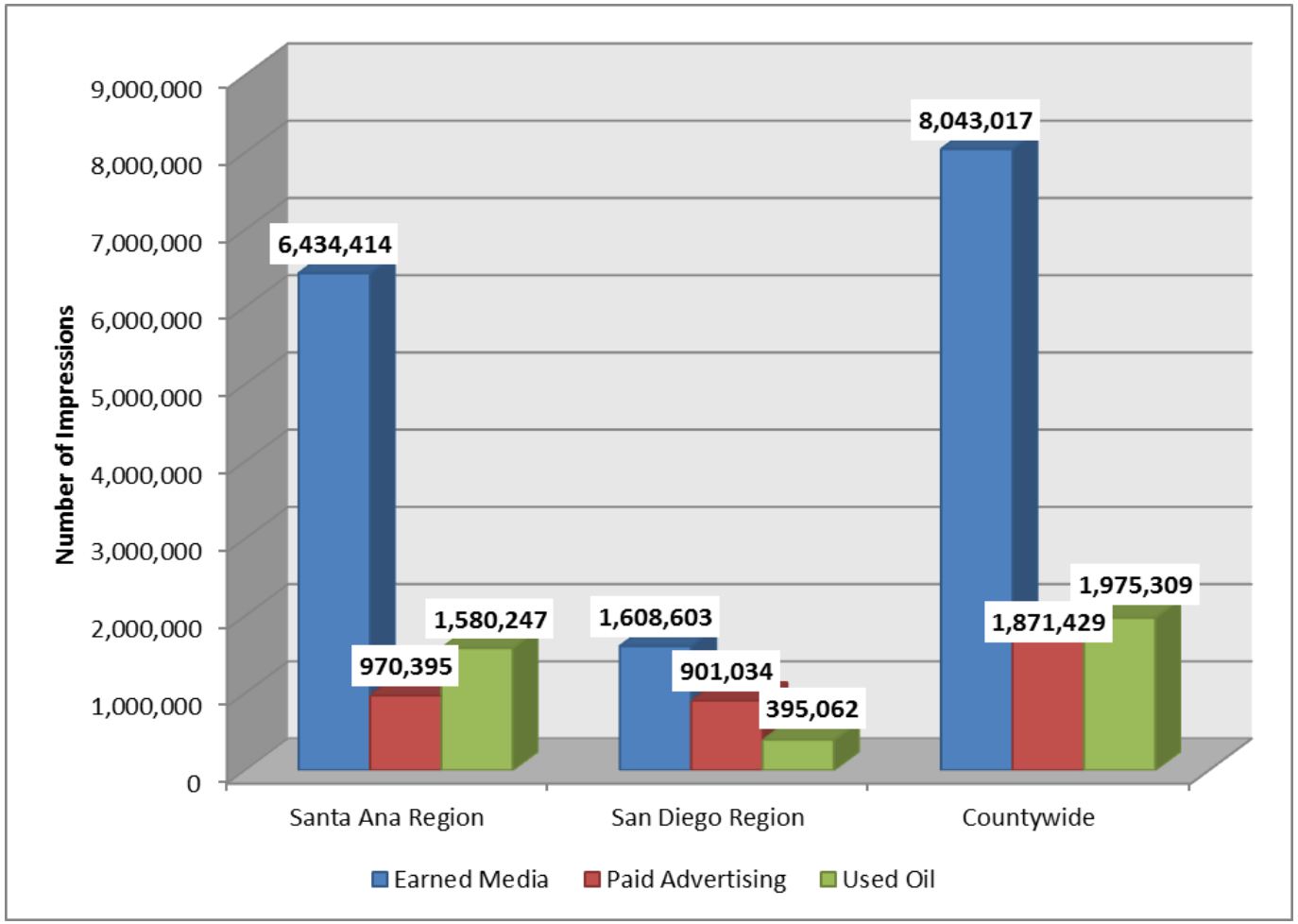


Figure C-6.2: ***Overwatering Action Campaign*** **Gnorman the Gnome Event Photo Prop Standee**

Figure C-6.3: ***Overwatering Action Campaign*** **"Gnorman Approved" Yard Sign and "Water Champion" Sticker Program**

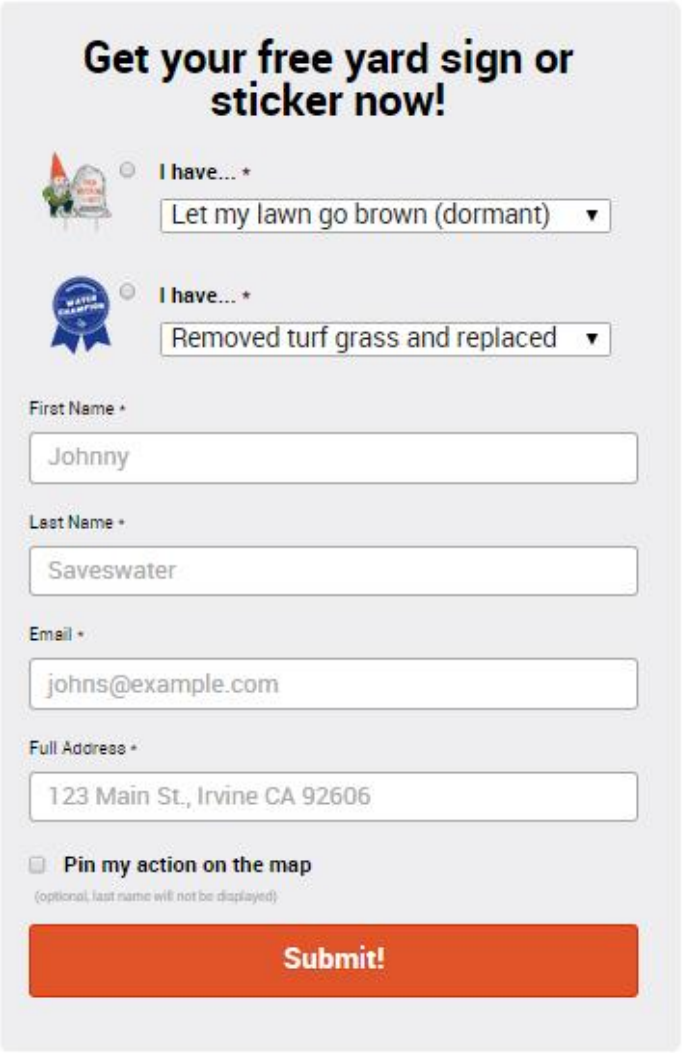


Figure C-6.4: OC Garden Friendly Planning and Plant Guide

(a) Outside panels

(b) Inside panels

Figure C-6.5: ***Overwatering Action Campaign*** **Email Opt-ins by Zip Code as of June 30, 2017**

Opt-ins by City

	Grand Total
Aliso Viejo	7
Anaheim	67
Brea	21
Buena Park	39
Capistrano Beach	5
Corona Del Mar	4
Costa Mesa	37
Cypress	35
Dana Point	12
Foothill Ranch	14
Fountain Valley	28
Fullerton	34
Garden Grove	103
Huntington Beach	173
Irvine	117
La Habra	37
La Palma	11
Ladera Ranch	8
Laguna Beach	3
Laguna Hills	15
Laguna Niguel	9
Lake Forest	57
Los Alamitos	13
Midway City	3
Mission Viejo	69
Newport Beach	6
Newport Coast	1
Orange	65
Placentia	14
Rancho Santa Margarita	18
San Clemente	32
San Juan Capistrano	15
Santa Ana	94
Seal Beach	16
Stanton	1
Trabuco Canyon	12
Tustin	120
Villa Park	3
Westminster	15
Yorba Linda	27
Grand Total	3,918

Opt-ins Mapped

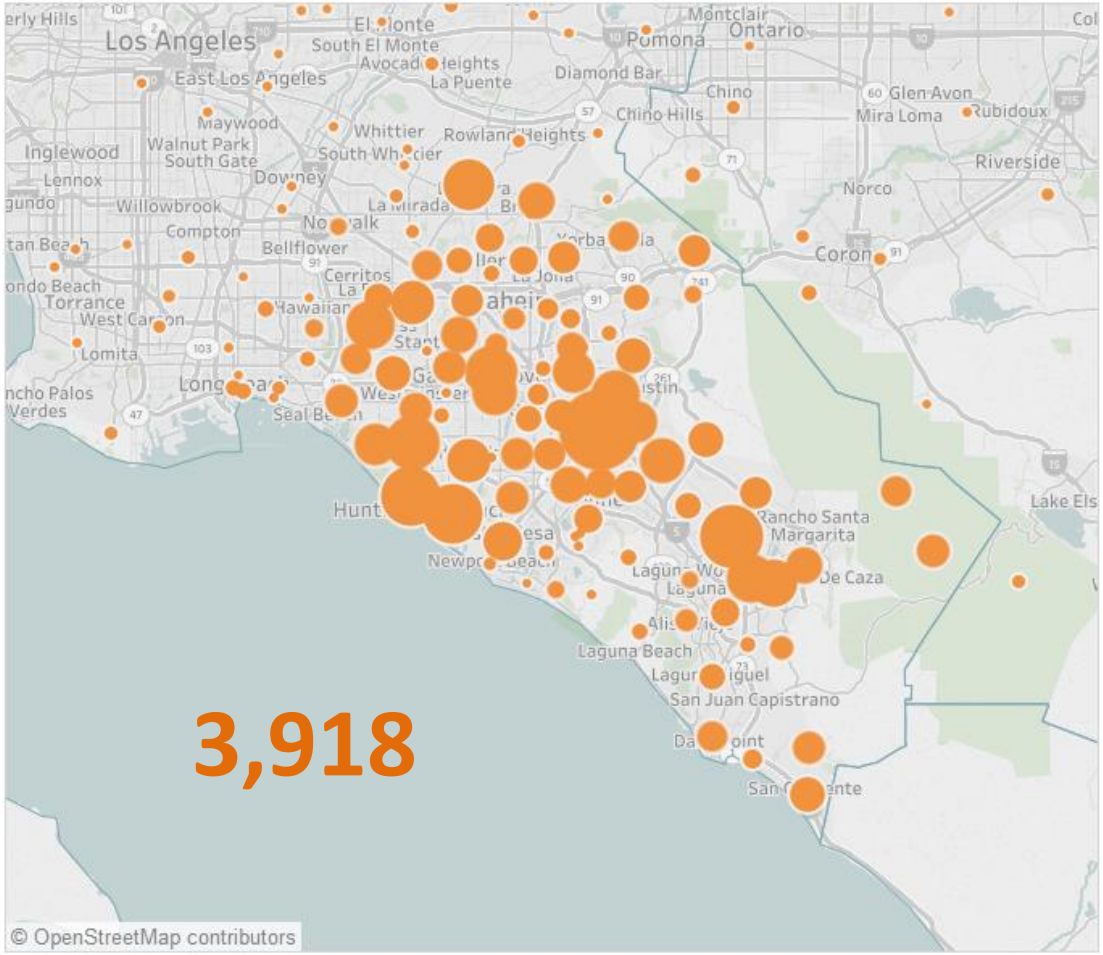
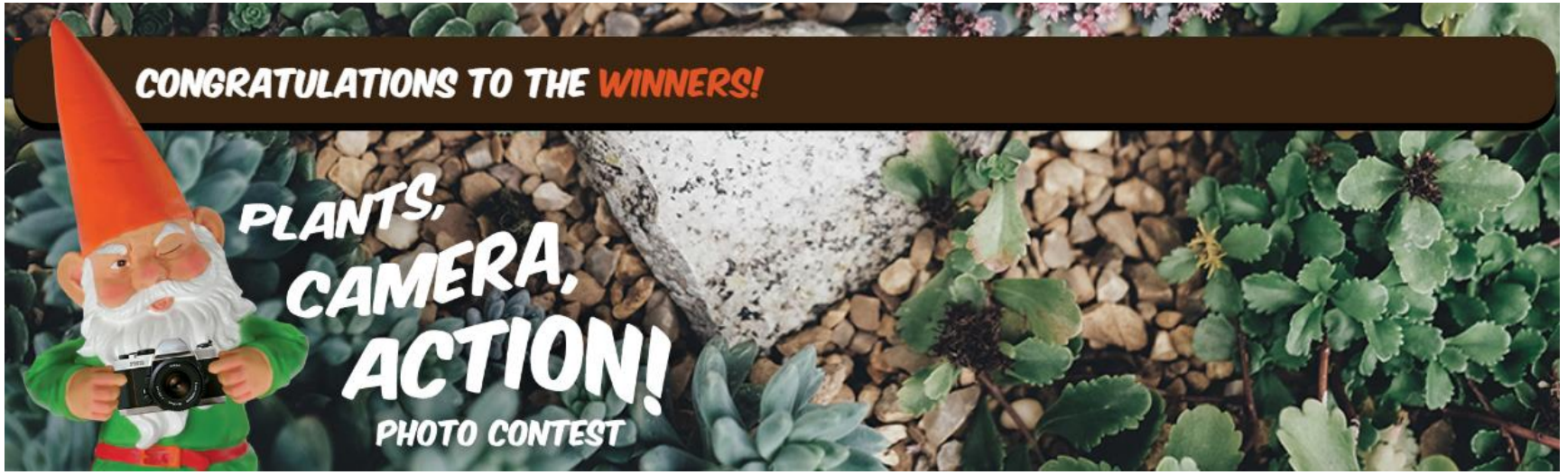


Figure C-6.6: ***Overwatering Action Campaign*** **Website Landing Page Action Map**

Figure C-6.7: *Plants, Camera, Action!* 2017 Photo Contest



Most Beautiful Photo of a California Friendly Landscape
Nina, San Juan Capistrano

Most Beautiful Photo of a California Friendly Plant
Tommy, Laguna Hills

People's Favorite
Donna, Huntington Beach

U.S. Environmental Protection Agency
Region IX

Total Maximum Daily Loads for Metals and Selenium
San Gabriel River and Impaired Tributaries

Approved by:

[Original signed by]

Alexis Strauss
Director Water Division
EPA Region 9

March 26, 2007

Date

LIST OF ACRONYMS

µg/L	Micrograms per liter
ACF	Acute Conversion Factor
AGR	Agricultural Supply
BAT	Best Available Technology
BMP	Best Management Practice
CCC	Criteria Continuous Concentration
CCF	Chronic Conversion Factor
CFR	Code of Federal Regulations
cfs	cubic feet per second
COMM	Commercial and Sport Fishing
CMC	Criteria Maximum Concentration
CTR	California Toxics Rule
CWA	Clean Water Act
EMC	Event Mean Concentration
EST	Estuarine Habitat
FHWA	Federal Highway Administration
GIS	Geographic Information System
GWR	Ground Water Recharge
IND	Industrial Service Supply
JWPCP	Joint Water Pollution Control Plant
LAs	Load Allocations
LACSD	Los Angeles County Sanitation Districts
LADWP	Los Angeles Department of Water and Power
LADPW	Los Angeles County Department of Public Works
LARWQCB	Los Angeles Regional Water Quality Control Board
LSPC	Loading Simulation Program in C++
MAR	Marine Habitat
MCLs	Maximum Contaminant Levels
MGD	Million Gallons Per Day
MIGR	Migration of Aquatic Organisms
MS4	Municipal Separate Storm Sewer System
MUN	Municipal Supply
NAV	Navigation
NPDES	National Pollutant Discharge Elimination System
POTW	Publicly Owned Wastewater Treatment Works
PROC	Industrial Process Supply
RECI	Water Contact Recreation
RECII	Non-contact Water Recreation
SARWQCB	Santa Ana Regional Water Quality Control Board
SCAG	Southern California Association of Governments
SCCWRP	Southern California Coastal Water Research Project
SHELL	Shellfish Harvesting
SIP	State Implementation Plan
SPWN	Spawning, Reproduction, and/or Early Development

SWRCB	State Water Resources Control Board
TMDL	Total Maximum Daily Loads
USACE	United States Army Corps of Engineers
U.S. EPA	United States Environmental Protection Agency
USGS	United States Geological Survey
VOCs	Volatile Organic Compounds
WDRs	Waste Discharge Requirements
WER	Water Effect Ratio
WET	Wetland Habitat
WLA	Waste Load Allocation
WRP	Water Reclamation Plant

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1. INTRODUCTION

Segments of the San Gabriel River and its tributaries exceed water quality objectives for copper, lead, selenium, and zinc. These segments (i.e., reaches) of the San Gabriel River have been identified as impaired under Section 303(d) of the Clean Water Act. The Clean Water Act requires that Total Maximum Daily Loads (TMDLs) be developed to address these impairments. Table 1 summarizes the waterbody impairments that are addressed by these TMDLs.

Table 1. Waterbodies identified as impaired for metals in the San Gabriel River watershed

Impaired Reach	Copper	Lead	Zinc	Selenium
San Jose Creek Reach 1				X
San Gabriel River Reach 2		X		
Coyote Creek	X	X	X	
San Gabriel River Estuary	X			

This document provides the background information used by the U.S. Environmental Protection Agency (EPA) and the California Regional Water Quality Control Board, Los Angeles Region (Los Angeles Regional Board) in the development of TMDLs for metals to the San Gabriel River Watershed.

1.1 Regulatory Background

Section 303(d) of the Clean Water Act (CWA) requires that each State "shall identify those waters within its boundaries for which the effluent limitations are not stringent enough to implement any water quality standard applicable to such waters." The CWA also requires states to establish a priority ranking for waters on the 303(d) list of impaired waters and establish TMDLs for such waters.

The elements of a TMDL are described in 40 CFR 130.2 and 130.7 and Section 303(d) of the CWA, as well as in EPA guidance (U.S. EPA, 2000a). A TMDL is defined as the "sum of the individual waste load allocations for point sources and load allocations for nonpoint sources and natural background" (40 CFR 130.2) such that the capacity of the waterbody to assimilate pollutant loadings (the Loading Capacity) is not exceeded. A TMDL is also required to account for seasonal variations and include a margin of safety to address uncertainty in the analysis.

States must develop water quality management plans to implement the TMDL (40 CFR 130.6). EPA has oversight authority for the 303(d) program and is required to review and either approve or disapprove the TMDLs submitted by states. In California, the State Water Resources Control Board (State Board) and the nine Regional Water Quality Control Boards are responsible for preparing lists of impaired waterbodies under the 303(d) program and for preparing TMDLs, both subject to EPA approval. If EPA disapproves a TMDL submitted by a state, EPA is required to establish a TMDL for that waterbody. The regional boards also hold regulatory

authority for many of the instruments used to implement the TMDLs such as the National Pollutant Discharge Elimination System (NPDES) permits and state-specified Waste Discharge Requirements (WDRs).

The Los Angeles Regional Board identified over 700 waterbody-pollutant combinations in the Los Angeles Region where TMDLs would be required (LARWCQB, 1996, 1998). These are referred to as "listed" or "303(d) listed" waterbodies or waterbody segments. A schedule for development of TMDLs in the Los Angeles Region was established in a consent decree approved on March 22, 1999 (Heal the Bay Inc., *et al*. v. Browner C 98-4825 SBA).

For the purpose of scheduling TMDL development, the decree combined the over 700 waterbody-pollutant combinations into 92 TMDL analytical units. Analytical unit 39 was designed to address metals in the San Gabriel River watershed. Under the consent decree, TMDLs are required to be established for metals in this analytical unit by March 2007. The Regional Board public noticed these TMDLs on May 5, 2006 and adopted them on July 13, 2006. However, because the State will not be able to complete its process for adopting these TMDLs and obtaining EPA approval in time to meet the consent decree deadline, EPA has agreed to establish them.

Analytical unit 39 included impairments of lead in San Jose Creek Reach 2, arsenic in the San Gabriel River Estuary, and silver in Coyote Creek. In 2002, California updated its 303(d) list and removed the listings for arsenic for the San Gabriel River Estuary and silver for Coyote Creek. Under the consent decree, TMDLs are not necessary for waterbody/pollutant combinations that have been delisted. Therefore, these TMDLs do not address arsenic or silver. Additionally, on review of Analytical unit 39, it appears that the lead impairment was wrongly assigned to San Jose Creek Reach 2. This was likely a typographical error in the consent decree as the lead impairment should have been assigned to San Gabriel River Reach 2 in order to be consistent with the 1998 list. These TMDLs address the lead impairment in San Gabriel River Reach 2.

The 303(d) list was updated again in 2006. The only current metals listings are for lead in San Gabriel River Reach 2 and for copper in Coyote Creek. Additional impairments were identified during the preparation of these TMDLs. These include impairments for lead and zinc in Coyote Creek, for selenium in San Jose Creek Reach 1, and for copper in the estuary. These impairments were identified by the State during the preparation of these TMDLs. The Regional Board identified these segments as impaired and took public comment on the these determinations during its public review process. These metals TMDLs will address the new impairments as well as those listed formally in the 2006 303(d) list[1].

[1] The 303(d) list was updated by California in 2004-2006 and submitted to EPA for approval under CWA 303(d). All the waterbody-pollutant combinations addressed in these TMDLs were either included on California's 2004-2006 list and approved by EPA, or added by EPA to the list in its partial disapproval of March 8, 2007. As all these waterbody-pollutant combinations are on the 303(d) list, all require TMDLs.
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1.2 Environmental Setting

The San Gabriel River receives drainage from a 682 square mile area of eastern Los Angeles County and has a main channel length of approximately 58 miles. Its headwaters originate in the San Gabriel Mountains with the East, West, and North Forks. The river flows through a heavily developed commercial and industrial area before emptying into the Pacific Ocean in Long Beach. The main tributaries of the river are Walnut Creek, San Jose Creek, and Coyote Creek (LARWQCB, 2000). A map of the watershed is presented in Figure 1 and the predominant land uses are shown in Figure 2.

Reach 5. The San Gabriel River Main Stem. The upper watershed consists of extensive areas of undisturbed riparian and woodland habitats in its upper reaches, much of which were set aside as wilderness areas by the U.S. Congress in 1968 as Public law 90-318, designating the San Gabriel Wilderness, within and as apart of the Angeles National Forest. Other areas in the upper watershed are subject to heavy recreational use. The upper watershed also contains a series of reservoirs with flood control dams (Cogswell, San Gabriel, and Morris Dams). Below Morris Dam, the river flows out of the San Gabriel Canyon and into the San Gabriel Valley.

About four miles downstream from the mouth of the San Gabriel Canyon is the Santa Fe Dam and Reservoir flood control project. Los Angeles County Department of Public Works (LACDPW) operates and maintains the Santa Fe Reservoir Spreading Grounds through an easement with the United States Army Corps of Engineers (USACE). The spreading grounds recharge water to the Main San Gabriel Basin underlying the San Gabriel Valley and are bounded by the San Gabriel Mountains on the north, the Puente Hills on the south, the San Jose Hills to the east, and the San Rafael Hills to the west. Flow from the upper part of the watershed often does not get past the Santa Fe Dam and its spreading grounds.

The Rio Hondo branches from the San Gabriel River just below Santa Fe Dam and flows westward to Whittier Narrows Reservoir. Flows from the San Gabriel River and Rio Hondo merge at this reservoir during larger flood events. From Whittier Narrows Reservoir, the Rio Hondo flows southwestward towards the Los Angeles River.

Reaches 3 and 4. The area between Santa Fe and Whittier Narrows Dam. The San Gabriel River between Santa Fe Dam and the Whittier Narrows Basin is soft-bottomed with riprap sides. This area is used for infiltration and is primarily dry during most of the year. Reach 4 of the San Gabriel River runs from the Santa Fe Dam to Ramona Boulevard. Reach 3 of the San Gabriel River runs from Ramona Boulevard to the Whittier Narrows Dam.

Walnut Creek is a tributary to San Gabriel River Reach 3. Puddingstone Reservoir is located on upper Walnut Creek and is operated for flood control, water conservation, and recreation. Immediately below Puddingstone Reservoir, the creek is soft-bottomed. The rest of the creek is concrete lined until its confluence with the San Gabriel River. Walnut Creek also receives inputs from Big Dalton Wash.

San Jose Creek enters San Gabriel River Reach 3 below Walnut Creek. The upper portion of San Jose Creek (Reach 2) extends from White Avenue to Temple Avenue. San Jose Creek Reach 1

extends from Temple Avenue to the confluence with the San Gabriel River. Tributaries to San Jose Creek Reach 1 include the South Fork, Diamond Bar Creek, and Puente Creek. The Pomona Water Reclamation Plant (WRP) discharges to the South Fork. San Jose Creek Reach 1 is concrete lined in its upper portion and soft bottomed just before it joins the San Gabriel River. The San Jose Creek WRP discharges to the soft-bottomed portion of the reach.

Waters entering the mainstem from San Jose and Walnut Creeks may be diverted through Whittier Narrows area to the Los Angeles River. Those waters remaining in the San Gabriel River will often recharge at the downstream spreading grounds.

Whittier Narrows Dam. The Whittier Narrows are a natural gap in the hills along the southern boundary of the San Gabriel Valley. The Whittier Narrows Dam is a flood control and water conservation project constructed and operated by the USACE. The Rio Hondo and San Gabriel Rivers flow through Narrows and are impounded by the Dam. The purpose of the project is to collect upstream runoff and releases from the Santa Fe Dam for flood control and water conservation. If the inflow to the reservoir exceeds the groundwater recharge capacity of the spreading grounds or the storage capacity of the water conservation or flood control pools, water is released into the San Gabriel River.

Reach 2. Below Whittier Narrows Dam. The Montebello Forebay is a recharge facility located immediately downstream of Whittier Narrows Dam and allows infiltration into the Central Basin aquifer. It runs from just below the Narrows to Firestone Boulevard (essentially all of Reach 2). Groundwater is recharged either by percolation through the unlined bottom of the river or by the diversion of water to the San Gabriel Coastal Basin Spreading Grounds by way of rubber dams. Water that is not captured in these spreading facilities flows to Reach 1 and the estuary.

Reach 1 and Estuary. The Lower Watershed. The lower part of the river flows through a concrete-lined channel in a heavily urbanized portion of the county. Reach 1 extends from Firestone Boulevard to the Estuary, just above the confluence with Coyote Creek.

Coyote Creek is a concrete-lined channel that flows along the Los Angeles/Orange County border. The upper portion of Coyote Creek is located in Orange County and is under the jurisdiction of the Santa Ana Regional Water Quality Control Board (SARWQCB). The Coyote Creek subwatershed is largely urbanized, but there are areas of open space in the upper watershed, which are mostly used for oil production. (SARWQCB, 2004). Coyote Creek joins the San Gabriel River above the tidal prism in Long Beach south of Willow Street.

The Estuary is approximately 3.4 miles long with a soft bottom and concrete and riprap sides. The Estuary receives flow from San Gabriel Reach 1 and Coyote Creek, tidal exchange, and cooling water discharged from two power plants.

1.3 Sections of this TMDL Report

Sections 2 through 8 of this document are organized as follows:

- **Section 2: Problem Identification.** This section reviews the metals data used to identify the waterbody as impaired under section 303(d) of the Clean Water Act, and summarizes

existing conditions using that evidence along with any new information acquired since the listing. This element identifies those reaches that fail to support all designated beneficial uses; the beneficial uses that are not supported for each reach; the water quality objectives designed to protect those beneficial uses; and, in summary, the evidence supporting the decision to list each reach, such as the number and severity of exceedances observed.

- **Section 3: Numeric Targets.** For these TMDLs, the numeric targets are based upon the water quality objectives described in the California Toxics Rule (CTR).
- **Section 4: Source Assessment.** This section estimates metals loadings from point sources and non-point sources to the San Gabriel River and listed tributaries.
- **Section 5: Linkage Analysis.** This analysis shows how the sources of metals compounds into the waterbody are linked to the observed conditions in the impaired waterbody. The linkage analysis addresses the critical conditions of stream flow, loading, and water quality parameters.
- **Section 6: TMDLs and Pollutant Allocations.** This section identifies the total allowable loads that can be discharged without causing water quality exceedances. Each pollutant source is allocated a quantitative load of metals that it can discharge without exceeding numeric targets. Allocations are designed such that the waterbody will not exceed numeric targets for any of the compounds or related effects. Allocations are based on critical conditions, so that the allocated pollutant loads may be expected to achieve water quality standards at all times.
- **Section 7: Implementation Recommendations.** This section describes the plans, regulatory tools, or other mechanisms by which the waste load allocations and load allocations may be achieved.
- **Section 8: Monitoring.** When the Regional Board adopted metals TMDLs for this watershed, they included a requirement for monitoring the waterbody to ensure that the water quality standards are attained. They also describes special studies to address uncertainties in assumptions made in the development of these TMDLs and the process by which new information may be used to refine the TMDL.

2. PROBLEM IDENTIFICATION

This section presents a review of the data used by the Los Angeles Regional Board to identify the San Gabriel River for metals. Where available, additional pertinent data were used to assess the condition of the watershed as impaired.

2.1 Water Quality Standards

California water quality standards consist of the following elements: 1) beneficial uses, 2) narrative and/or numeric water quality objectives, and 3) an antidegradation policy. In California, beneficial uses are defined by the regional boards in their Water Quality Control Plans (Basin Plans). Numeric and narrative objectives are designed to be protective of the beneficial uses specified in the Basin Plan.

2.1.1 Beneficial Uses

The Basin Plan for the Los Angeles Regional Board (LARWQCB, 1994) defines 22 beneficial uses for the San Gabriel River (Table 2-1). These uses are recognized as existing (E), potential (P) or intermittent (I) uses. Metals loading to the San Gabriel River watershed may result in impairments of beneficial uses associated with aquatic life (WILD, WARM, COLD, RARE, EST, MAR, MIGR, SPWN, and WET) and water supply (MUN, IND, AGR, GWR, and PROC).

Table 2-1. Beneficial uses in the San Gabriel River watershed. (LARWQCB, 1994)

Reach	MUN	GWR	REC1	REC2	WILD	WARM	COLD	RARE	WET	IND	AGR	PROC	IND	SHELL	NAV/ COMM	EST/ MAR	MIGR/ SPWN
San Gabriel River Reach 5 (Mainstem)	E	E	E	E	E	E	E			E	E	E					
San Gabriel River Reach 4 (Santa Fe Dam to Ramona)	E	E	E	E	E	E	E			E	E	E					
San Gabriel River Reach 3 (Ramona to Whittier Narrows)	P[1]	I	I[2]	I	E	I											
Walnut Creek	P[1]	I	I[2]	I	E	I			I								
San Jose Creek Reach 2 (Temple Street to I-10 at White Ave)	P[1]	I	P[2]	I	E	I											
San Jose Creek Reach 1 (Confluence to Temple Street)	P[1]	I	P[2]	I	E	I											
San Gabriel River Reach 2 (Whittier Narrows to Firestone)	P[1]	I	E[2]	E	E	I		E		P		P					
San Gabriel River Reach 1 (Firestone to Estuary)	P[1]		E[2]	E	P	P											
Coyote Creek	P[1]		P[2]	I	P	P		E		P		P					
Estuary			E	E	E			E		E			E	P	E	E	E

1. Use may be reviewed by SWRCB
2. Access restricted by LACDPW

The Basin Plan for the Santa Ana Regional Board (SARWQCB, 1995) defines five beneficial uses for upper Coyote Creek (Table 2-2). These uses are recognized as present or potential uses.

Table 2-2. Beneficial uses in upper Coyote Creek. (SARWQCB, 1995)

Reach	MUN	AGR	IND	GWR	REC1	REC2	COMM	WARM	COLD	BIOL	WILD	RARE
Coyote Creek (within Santa Ana Regional Boundary)	x				x	x		x			x	

2.1.2. Water Quality Objectives

Narrative water quality objectives are specified by the 1994 Los Angeles Regional Board Basin Plan. The following narrative objectives are most pertinent to the metals TMDL:

Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.

All waters shall be maintained free of toxic substances in concentrations that are toxic to or that produce detrimental physiological responses in human, plant, animal, or aquatic life.

Toxic substances shall not be present at levels that will bioaccumulate in aquatic life resources to levels which are harmful to aquatic life or human health.

The Los Angeles Regional Board's narrative toxicity objective reflects and implements national policy set by Congress. The Clean Water Act states that, "it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited." (33 U.S.C. 1251(a)(3)). In 2000, EPA established numeric criteria for certain toxic pollutants, including the metals subject to these TMDLs, in the California Toxics Rule (CTR) (U.S. EPA 2000b). The federal water quality criteria established by the CTR serve as the numeric water quality objectives for the Los Angeles Region. The CTR criteria apply at all times during wet and dry weather to inland surface waters. (See, 40 CFR 131.38(a), (c)(1), and (d)(1).) There is no exception for wet-weather conditions. Aquatic life is present in wet weather conditions and the CTR is legally necessary to protect these uses. In high-volume, wet-weather conditions, if the concentration of a toxic pollutant in a water body exceeds the CTR criterion, the water body is toxic.

The TMDLs for metals in the San Gabriel River are based on the CTR criteria for the protection of aquatic life. The CTR aquatic life criteria for copper (Cu), lead (Pb), selenium (Se), and zinc (Zn) are presented in Table 2-3. The aquatic life-based criteria will ensure that both the aquatic life and water supply beneficial uses for the San Gabriel River are protected. The CTR human health criterion for copper is less stringent than the aquatic life criteria. There are no CTR human health criteria for lead, selenium, or zinc, to compare with aquatic life criteria. However, the CTR aquatic life criteria are at least or more protective than the primary or secondary drinking water limits set forth in Title 22 of the California Code of Regulations.

The CTR establishes short-term (acute) and long-term (chronic) aquatic life criteria for metals in both freshwater and saltwater. The acute criterion, defined in the CTR as the Criteria Maximum Concentration (CMC), equals the highest concentration of a pollutant to which aquatic life can be exposed for a short period of time (one hour) without deleterious effects. The chronic criterion, defined in the CTR as the Criteria Continuous Concentration (CCC), equals the highest concentration of a pollutant to which aquatic life can be exposed for an extended period of time (4 days) without deleterious effects. The criteria for copper, lead and zinc in freshwater and saltwater and the criterion for selenium in saltwater are based on the dissolved fraction of metals in water. The criterion for selenium in freshwater is based on the total recoverable fraction.

Freshwater criteria apply to waters in which the salinity is equal to or less than 1 part per thousand (ppt) 95 percent or more of the time. Saltwater criteria apply to waters in which salinity is equal to or greater than 10 ppt 95 percent or more of the time. For waters in which the salinity is between 1 and 10 ppt, the more stringent of the two criteria apply.

Table 2-3. Water quality objectives established in the California Toxic Rule (CTR). Values in table are based on a hardness value of 100 mg/l as $CaCO_3$. (U.S. EPA, 2000b)

Metal	Freshwater Chronic (µg/l)	Freshwater Acute (µg/l)	Saltwater Chronic (µg/l)	Saltwater Acute (µg/l)
Copper	9*	13*	3.1	4.8
Lead	2.5*	65*	8.1	210
Selenium	5**	Reserved	71	290
Zinc	120*	120*	81	90

*Freshwater criteria for dissolved copper, lead, and zinc are hardness dependent.
**Freshwater criterion for selenim is for total recoverable metals

The CTR allows for the adjustment of freshwater and saltwater criteria with a water-effect ratio (WER) to account for site-specific chemical conditions. A WER represents the ratio of metals that are measured to metals that are biologically available and toxic to aquatic life. A WER is a measure of the toxicity of a material in site water divided by the toxicity of the same material in laboratory dilution water. The adjusted criteria are equal to the values in Table 2-3 multiplied by a WER. No site-specific WER has been developed for the San Gabriel River; therefore, a WER default value of 1.0 is assumed.

The freshwater criteria for copper, lead, and zinc are expressed as a function of hardness. Increasing hardness generally has the effect of decreasing the toxicity of metals. The CTR lists criteria based on a hardness value of 100 mg/L as $CaCO_3$ (Table 2-3) and provides hardness dependent equations to calculate the criteria using site-specific hardness data (up to 400 mg/L as $CaCO_3$), as follows:

$$\mathbf{CMC = WER * ACF * EXP[(m_a)(ln(hardness)+b_a]} \qquad \textbf{Equation (1)}$$

$$\mathbf{CCC = WER * CCF * EXP[(m_c)(ln(hardness)+b_c]} \qquad \textbf{Equation (2)}$$

Where:

CMC = Criteria Maximum Concentration
CCC = Criteria Continuous Concentration
WER = Water Effects Ratio (assumed to be 1)
ACF = Acute conversion factor (to convert from total recoverable to dissolved metals)
CCF = Chronic conversion factor (to convert from total recoverable to dissolved metals)
m_A = slope factor for acute criteria
m_C = slope factor for chronic criteria
b_A = y intercept for acute criteria
b_C = y intercept for chronic criteria

The coefficients needed for the calculation of freshwater objectives are provided in the CTR (Table 2-4). The conversion factors for lead are hardness-dependent. The following equations can be used to calculate the lead conversion factors based on site-specific hardness data:

$$\mathbf{Lead\ ACF = 1.46203 - [(ln\{hardness\})(0.145712)]} \qquad \textbf{Equation (3)}$$

$$\mathbf{Lead\ CCF = 1.46203 - [(ln\{hardness\})(0.145712)]} \qquad \textbf{Equation (4)}$$

Table 2-4. Coefficients used in formulas for calculating freshwater CTR standards. (U.S. EPA, 2000b)

Metal	Freshwater ACF	Saltwater ACF	m_A	B_A	Freshwater CCF	Saltwater CCF	m_C	b_C
Copper	0.960	0.83	0.9422	-1.700	0.960	0.83	0.8545	-1.702
Lead	0.791*	0.951	1.2730	-1.460	0.791*	0.951	1.2730	-4.705
Selenium	n/a	0.998	n/a	n/a	n/a	0.998	n/a	n/a
Zinc	0.978	0.946	0.8473	0.884	0.986	0.946	0.8473	0.884

* The Freshwater ACF and CCF for lead are hardness dependent. Conversion factors in this table are based on a hardness value of 100 mg/L as $CaCO_3$.

2.1.3. Antidegradation

State Board Resolution 68-16, "Statement of Policy with Respect to Maintaining High Quality Water" in California, known as the "Antidegradation Policy," protects surface and ground waters from degradation. Any actions that can adversely affect water quality in all surface and ground waters must be consistent with the maximum benefit to the people of the state, must not unreasonably affect present and anticipated beneficial use of such water, and must not result in water quality less than that prescribed in water quality plans and policies. Furthermore, any actions that can adversely affect surface waters are also subject to the federal Antidegradation Policy (40 CFR 131.12). The TMDL will not degrade water quality, and will in fact improve water quality as it is designed to achieve compliance with existing, numeric water quality standards.

2.2 Water Quality Data Summary

This section summarizes water quality data pertaining to metals for the San Gabriel River and its tributaries. This section assesses the storm water data that were used in the 2002 and 2006 303(d) listing process, more recent storm water data, and additional dry-weather data. Data were evaluated based on the "Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List" (SWRCB, 2004). Sources of metals and conditions in the river vary dramatically between wet and dry weather (see Section 4). It is therefore essential to conduct the data assessment separately for wet and dry weather.

2.2.1. Dry-weather Data Summary

There are two sources of data that were evaluated to assess dry-weather water quality. The first source is the ambient monitoring data collected by the Los Angeles County Sanitation Districts (LACSD) for the five WRPs located in the San Gabriel River. Locations of the receiving water monitoring stations for the five plants are listed in Table 2-5.

Table 2-5. Location of LACSD ambient monitoring stations.

San Jose Creek		
Reach	**Station**	**Description**
1	R-A-P	Below Pomona WRP discharge, at San Jose Street, downstream of Old Brea Road
1	R-C	Below the intersection of the north and south forks of San Jose Creek
1	R-D	End of concrete-lined portion of San Jose Creek -200 yards downstream of 3rd Ave
1	C-1	Above the San Jose Creek WRP discharge point 002
1	C-2	Below the San Jose Creek WRP discharge point 002
San Gabriel River		
Reach	**Station**	**Description**
3	R-10	Above the confluence with San Jose Creek
3	R-11	Upstream of the Whittier Narrows WRP discharge points 001 and 002
3	R-A-WN	Downstream of the Whittier Narrows WRP discharge point 001, approximately 150 feet upstream of Whittier Narrows Dam
1	R-2	Below the San Jose Creek WRP discharge point 001, near Firestone Blvd
1	R-3-1	Upstream of the Los Coyotes WRP
1	R-4	Downstream of the Los Coyotes WRP, at Artesia Boulevard
1	R-9W	At the end of the western low flow channel, near Atherton Street
Estuary	R-A-2	Downstream of the confluence of the eastern and western low flow channels
Estuary	R-6	At Seventh Street
Estuary	R-7	At Westminster Avenue
Estuary	R-8	At Marina Avenue
Coyote Creek		
Reach	**Station**	**Description**
	R-A-1	Upstream of the discharge from Long Beach WRP
	R-A	Downstream of the discharge from Long Beach WRP
	R-9E	At the end of the eastern low flow channel, near Atherton Street

Evaluation of LACSD Data

Data from LACSD samples were compared to chronic CTR criteria. LACSD analyzes for concentrations of total recoverable metals; therefore, CTR criteria were converted to total recoverable metals using default chronic conversion factors (Table 2-4). Data collected from freshwater stations were compared to freshwater CTR criteria, which were adjusted for site-specific hardness values. Where possible, data were compared to criteria that had been adjusted for actual hardness values measured for each sample. Metals data from samples without reported hardness values were compared to CTR criteria based on median hardness values for those sampling stations. Samples from the Estuary were compared to saltwater criteria, which are independent of hardness. These monitoring data provide water quality information for the San Gabriel River Reaches 1 and 3, San Jose Creek, Coyote Creek, and the Estuary (Table 2-6).

Table 2-6. Summary dry-weather ambient data assessment (LACSD data 1995 through 2005). Values in table are the number of samples exceeding chronic CTR criteria over the number of metals samples. Non detects treated as zero.

Reach	Median Hardness	Copper	Lead	Zinc	Selenium[1]
San Jose Creek Reach 1					
R-A-P (below Pomona WRP)	202	1/12	2/12	1/12	0/12
R-C (below Pomona WRP)	373	0/19	0/19	0/19	0/12
R-D (End of concrete-lined portion of Creek)	534[2]	1/19	1/19	0/19	5/12
C-1 (above SJWRP 002)	515[2]	0/33	0/33	0/32	4/30
C-2 (below SJWRP 002)	296	0/12	0/12	0/5	2/12
Total		2/95	3/95	1/82	11/78
San Gabriel Reach 3					
R-10 (above confluence with San Jose Creek)	131	0/3	0/3	0/3	0/3
R-11 (above WNWRP)	250	0/49	0/49	0/48	0/38
R-A-WN (below WNWRP)	212	0/24	0/24	0/24	0/10
Total		0/76	0/76	0/75	0/51
Coyote Creek					
RA1 (above LBWRP)	417	0/49	0/49	0/49	0/29
RA (below LBWRP)	249	0/42	0/42	0/42	0/14
R-9E	278	2/20	1/20	1/20	0/12
Total		2/111	1/111	1/111	0/55
San Gabriel Reach 1					
R-2 (below SJWRP 001)	204	0/12	0/12	0/5	0/12
R-3-1	196	1/20	0/20	0/20	0/21
R-4 (below LCWRP)	217	0/11	0/11	0/11	0/12
R-9W	211	0/19	0/19	0/19	0/12
Total		1/62	0/62	0/55	0/57
Estuary[1]					
R-A-2		2/19	0/19	2/19	0/12
R-6		1/11	0/11	0/11	0/12
R-7		1/11	0/11	0/11	0/12
R-8		1/20	2/19	0/19	0/12
Total		5/61	2/60	2/60	0/48

1) Criteria are independent of hardness.
2) Maximum allowable hardness value to adjust criteria is 400 mg/L as $CaCO_3$.

Dry-Weather Results for San Jose Creek Reach 1

There were occasional exceedances of chronic copper, lead, and selenium criteria in San Jose Creek Reach 1. Two out of 95 samples exceeded the adjusted chronic copper criterion. This does not indicate an impairment in San Jose Creek.

Three out of 95 samples exceeded the adjusted chronic lead criterion. Fourteen of the 95 samples had detection limits greater than adjusted CTR criterion, so it is possible that samples with non-detectable values exceeded the criterion. However, these samples were taken prior to 2001. Since LACSD lowered their detection limits, only three out of 81 samples exceeded the criterion. Three exceedances out of 81 do not indicate an impairment in San Jose Creek.

There were 11 out of 78 samples exceeding the chronic selenium criterion. Detection limits were not an issue for the selenium assessment. This exceedance percentage indicates an impairment. A dry-weather TMDL is required for selenium in San Jose Creek Reach 1.

Dry-Weather Results for San Gabriel River Reach 3

There were no exceedances of chronic copper, lead, zinc or selenium criteria in San Gabriel River Reach 3. Four of the older lead samples had detection limits greater than adjusted CTR criterion, so it is possible that samples with non-detectable values exceeded the criterion. However, no samples have exceeded the criterion since LACSD lowered their detection limits in 2001. There is no evidence of impairments for any metals. No dry-weather TMDLs are required for this reach.

Dry-Weather Results for San Gabriel River Reach 1

There were no exceedances of chronic criteria for lead, zinc, or selenium criteria in San Gabriel River Reach 1. One out of 62 samples exceeded the copper criterion. This exceedance percentage does not indicate an impairment. There were no exceedances of lead criteria in the 62 samples. Eight of these samples had detection limits above CTR criterion, so it is possible that samples with non-detectable values of metals exceeded the criterion. However these samples were taken prior to 2002. Since LACSD lowered their detection limits, none of the 54 samples exceeded the criterion. With zero exceedances, there is no evidence of impairment in this reach and no dry-weather TMDLs are required.

Dry-Weather Results for Coyote Creek

There were few to no exceedances of the chronic selenium criteria and a few exceedances of the chronic for copper, lead and zinc, or selenium criteria in Coyote Creek. Two out of 111 samples exceeded the copper criterion, which does not indicate an impairment. One out of 111 samples exceeded the chronic zinc criterion, which does not indicate an impairment. One out of 111 samples exceeded the chronic lead criterion. Twenty of the lead samples had detection limits above CTR criterion, so it is possible that samples with non-detectable values of metals exceeded the criterion. Twenty of these samples were taken prior to 2002. Since LACSD lowered their detection limits, one out of 91 samples exceeded the criterion for lead. With one exceedance,

there is no evidence of impairment in this reach. No dry-weather TMDLs are required for this reach.

Dry-Weather Results for the Estuary

There are occasional exceedances of copper, lead, and zinc in samples from the Estuary. There were no exceedances of the selenium criteria. Two out of the 60 samples exceeded the chronic lead criterion for saltwater. Twenty-two of these samples had detection limits (or estimated values) greater than the CTR criterion. When the detection limits were less than CTR, one out of 38 samples exceeded the criterion. The data do not indicate an impairment for lead.

Two out of 60 samples exceeded the chronic zinc criterion for saltwater. Seven of the 60 samples had detection limits greater than CTR criterion. When the detection limits were less than CTR, two out of 40 samples exceeded the criterion. The data do not indicate an impairment for zinc.

Five out of 61 samples exceeded the chronic copper criterion for saltwater. Fifty-four of these samples had detection limits greater than CTR criterion. In 2003, the detection limits were lowered from 80 µg/L to 8 µg/L, which is still greater than the adjusted CTR saltwater criterion (3.7µg/L). Since LACSD lowered their detection limits to 8 µg/L, five out of 40 samples exceed the criterion. It cannot be assumed that nondetectable values in the older data were less than CTR criterion. More weight is therefore given to the more recent data. Furthermore, when copper was detected in the samples, the criterion was exceeded by three to eight times, which demonstrates that the magnitude of exceedances is significant. Five out of 40 exceedances indicates an impairment for copper in the Estuary. Based on the weight of evidence, a dry-weather TMDL is required for copper in the Estuary.

Evaluation of Los Angeles County Department of Public Works (LACDPW) Dry-Weather Data

The second source of dry-weather water quality data is the Los Angeles County Department of Public Works (LACDPW) storm water mass emission stations at Coyote Creek (S13) and San Gabriel River Reach 2 (S14). LACDPW collects composite samples during storm events and dry weather for hardness, dissolved metals, and total recoverable metals. Dissolved metals data collected during dry weather were compared to hardness adjusted chronic CTR criteria to assess dry-weather impairments (Table 2-7).

Table 2-7. Summary of chronic metals criteria exceedances in LACDPW dry-weather data for San Gabriel River Reach 2 (Station S14) and Coyote Creek (Station S13) from October 1997 to June 2005.

San Gabriel Reach 2	Number of Samples	Exceedances of Chronic Criteria
Copper (dissolved)	10	0
Lead (dissolved)	10	0
Selenium (total recoverable)	10	0
Zinc (dissolved)	10	0
Coyote Creek	**Number of Samples**	**Exceedances of Chronic Criteria**
Copper (dissolved)	8	0
Lead (dissolved)	8	0
Selenium (total recoverable)	8	1
Zinc (dissolved)	8	0

Based on the LACDPW dry-weather data, there are a no exceedances of chronic copper, lead, or zinc criteria in San Gabriel River Reach 2 or Coyote Creek. There is one exceedance of the selenium criterion in Coyote Creek. There are no impairments for any of these metals and no dry-weather TMDLs are required for these reaches.

2.2.2 Wet-weather Data Summary

To assess wet-weather water quality, LACDPW storm water data were evaluated. Dissolved metals data from storm events were compared to hardness adjusted dissolved chronic and acute CTR criteria to assess wet-weather impairments (Table 2-8).

Table 2-8. Summary of acute and chronic criteria exceedances in LACDPW storm water data for San Gabriel River Reach 2 (Station S14) and Coyote Creek (Station S13) from November 1997 to January 2005.

San Gabriel Reach 2	Number of Samples	Exceedances of Acute Criteria	Exceedances of Chronic Criteria
Copper (dissolved)	58	2	4
Lead (dissolved)	58	0	5
Selenium (total recoverable)	58	-	1
Zinc (dissolved)	58	3	3
Coyote Creek	**Number of Samples**	**Exceedances of Acute Criteria**	**Exceedances of Chronic Criteria**
Copper (dissolved)	62	9	19
Lead (dissolved)	62	0	7
Selenium (total recoverable)	62	-	4
Zinc (dissolved)	62	6	6

Detection limits for all metals were below the CTR acute and chronic criteria. Therefore, if metals were not detected in a sample, CTR criteria were not exceeded.

Wet-Weather Results for San Gabriel River Reach 2

There were five out of 58 samples that exceeded the chronic lead criterion, which indicates an impairment. There were four out of 58 exceedances of the chronic copper criterion and three out of 58 exceedances of the chronic zinc criterion. This does not indicate impairments for these metals. A wet-weather TMDL is required for lead in San Gabriel River Reach 2.

Wet-Weather Results for Coyote Creek

In Coyote Creek, there were 19 out of 62 samples exceeding the chronic copper criterion, seven out of 62 samples exceeding the chronic lead criterion, and six out of 62 samples exceeding the chronic zinc criterion. This indicates impairments for these metals. There were four out of 62 exceedances of the chronic selenium criteria. This does not indicate an impairment. Wet-weather TMDLs are required for copper, lead, and zinc in Coyote Creek.

2.2.3. Conclusions

The available data provide an overall picture of water quality during both dry and wet weather. The data review confirms the existence of impairments for some of the metals identified in the 1998 and 2002 303(d) lists. The more recent data indicate additional dry-weather impairments

not included on the 303(d) list. Based on the conclusions drawn from the data review, TMDLs are developed for the pollutant-water body combinations shown in Table 2-9.

Table 2-9. Summary of dry-weather and wet-weather impairments.

Reaches	Copper	Lead	Zinc	Selenium
San Jose Creek Reach 1				Dry
San Gabriel River Reach 2		Wet		
Coyote Creek	Wet	Wet	Wet	
Estuary	Dry			

Dry-weather TMDLs will be developed for copper in the Estuary and selenium in San Jose Creek Reach 1. Allocations will be developed for upstream reaches and tributaries to meet TMDLs in downstream reaches. Discharges to upstream reaches can cause or contribute to exceedances of water quality standards and contribute to impairments downstream. Dry-weather allocations will be assigned to San Gabriel River Reach 1 and Coyote Creek and its tributaries to meet the copper TMDL in the Estuary. No dry-weather copper allocations are required for San Gabriel River Reaches 2, 3, 4, 5, San Jose Creek, or Walnut Creek because they do not drain to the Estuary during dry weather. Dry-weather allocations will be assigned to San Jose Creek Reach 2 to meet the selenium TMDL in San Jose Creek Reach 1.

Wet-weather TMDLs will be developed for lead in San Gabriel River Reach 2 and for copper, lead, and zinc in Coyote Creek. Wet-weather allocations will be developed for all upstream reaches and tributaries in the watershed that drain to impaired reaches during wet weather. Discharges to these upstream reaches can cause or contribute to exceedances of water quality standards in San Gabriel River Reach 2 and Coyote Creek and thus contribute to impairments.

There are no available data to assess water quality in Reaches 4, or 5 of the San Gabriel River or Walnut Creek. There are no wet-weather data for Reach 1 and it is not possible to assess wet-weather water quality at the bottom of the watershed. Additional data representing wet-weather conditions in Reach 1 and the Estuary are needed. No TMDLs or waste load allocations have been developed for Reach 1 or the Estuary during wet-weather, but wet-weather monitoring is recommended as part of the implementation of these TMDLs.

3. NUMERIC TARGETS

Numeric targets for the TMDL are based on CTR criteria. As stated in section 2.1.2, CTR criteria are expressed as dissolved metals because dissolved metals more closely approximate the bioavailable fraction of metals in the water column. However, sources of metals loading to the watershed include metals associated with particulate matter. Once discharged to the river, particulate metals could dissolve, causing the criteria to be exceeded. The TMDL targets, and resulting waste load allocations, are expressed in terms of total recoverable metals to address the potential for dissolution of particulate metals in the receiving water. Attainment of numeric targets expressed as total recoverable metals will ensure attainment of the dissolved CTR criteria.

Separate numeric targets are developed for dry and wet weather because hardness values and the fractionation between total recoverable and dissolved metals vary between dry and wet weather. As in other TMDLs (e.g., the Los Angeles River Metals TMDL), the distinction between wet and dry weather is operationally defined as the 90th percentile flow in the river. Because separate wet-weather TMDLs are required for San Gabriel Reach 2 and Coyote Creek, the distinction between wet- and dry-weather is separately defined for these two reaches.

To determine the distinction between wet and dry weather, historical flows were obtained from flow gauge stations located in the watershed (Figure 3). LACDPW flow gauge station F262C-R is located in San Gabriel River Reach 2. Very little flow is measured at this gauge because much of Reach 2 is used for groundwater recharge; the median flow is 0.0 cubic feet per second (cfs) and the 90th percentile flow is 1.0 cfs based on flow records from 1990 to 2005. There is a United States Geological Survey (USGS) gauge station located at the bottom of Reach 3 just above Whittier Narrows Dam (station 1108500). The flow gauge above the dam is the best indicator of wet-weather conditions (i.e., sufficient runoff is generated to cause a response in the river flow and to wash off pollutants from the watershed land surface). Furthermore, when flows reach the 90th percentile at USGS station 11085000, the upper and lower portions of the watershed are most likely connected (i.e., flows of this magnitude will likely exceed the dam's capacity). The 90th percentile flow based on flow records from 1990 to 2005 is 260 cfs (Figure 4). Wet-weather targets for Reach 2 will apply when the maximum daily flow is equal to or greater than 260 cfs.

In Coyote Creek, the delineation between wet and dry weather occurs when the maximum daily flow at LACDPW flow gauge station F354-R, located at the bottom of the creek is 156 cfs. This is the 90th percentile flow based on flow records from 1990 to 2005 (Figure 5). Wet-weather targets for Coyote Creek will apply when the maximum daily flow in the creek is equal to or greater than 156 cfs.

3.1 Dry-Weather Targets

Dry-weather numeric targets are developed for copper in the Estuary and selenium in San Jose Creek Reach 1 (Table 3-1). Numeric targets are based on chronic CTR criteria because these are the most protective criteria and the most applicable during dry-weather conditions. The dry-

weather target for selenium in San Jose Creek Reach 1 is based on the freshwater CTR value of 5 ug/l.

The target for copper in the estuary is based on CTR saltwater criteria because the salinity in the estuary is greater than 10 parts per thousand 95% or more of the time. A CTR default conversion factor is applied as a translator to convert the copper target from dissolved to total recoverable metals.

Table 3-1. Dry-weather numeric targets expressed as µg/L total recoverable metals.

	Copper			Selenium		
Reach	Chronic Saltwater Criteria (µg/L dissolved)	CCF	Numeric Target (µg/L total)	Chronic Freshwater Criteria (µg/L total)	CCF	Numeric Target (µg/L total)
San Jose Creek Reach 1	--	--	--	5	--	5
San Gabriel River Estuary	3.1	0.83	3.7	--	--	--

Based on monitoring conducted by City of Los Angeles Watershed Monitoring Program data in Los Angeles River, which has similar watershed characteristics and sources of flow and pollutant loading, the default conversion factors tend to overestimate the fraction of copper that is in the dissolved form. The use of the default conversion factors is applied to the margin of safety.

3.2 Wet Weather Targets

CTR acute criteria are the basis for the wet-weather targets because they are protective of aquatic life during the generally short-term and episodic storm conditions that exist in the San Gabriel River watershed. Median hardness values from LACDPW storm water data (Table 3-2) were used to calculate reach specific targets for lead in San Gabriel River Reach 2 and copper, lead and zinc in Coyote Creek.

Table 3-2. Wet-weather hardness values (mg/L as $CaCO_3$) from LACDPW storm water data (1997-2005).

Reach	Number of samples	10^{th} percentile hardness	50^{th} percentile hardness	90^{th} percentile hardness
San Gabriel Reach 2	58	99	175	282
Coyote Creek	61	51	105	210

The data collected by LACDPW were also used to evaluate the relationship between dissolved and total recoverable metals in storm water. Figures 6 through 9 plot measured values of dissolved metals against measured values of total metals. Most of the measured values fell below the line CTR-based trend lines indicating that use of CTR default conversion factors would overestimate the dissolved portion of metals in storm water samples. Data from literature confirm this and suggest that there is an even smaller portion of dissolved metals in wet weather. Young et al. 1980 estimated that only 10% of the cadmium, copper, lead, and zinc in storm water samples were dissolved. McPherson et al. 2004 found similar results in storm water from nearby Ballona Creek. In that study, only 17% of the cadmium, 37% of the copper, and 14% of the lead were dissolved. Regressions generally suggest a relationship between the total and dissolved fraction. The slope of the regressions reflects the ratio of the dissolved to total recoverable concentration. The R^2 value gives an indication of the strength of the relationship. The results

of the regression analyses are presented in Table 3-3. We found reasonable relationships for copper, lead and zinc in Coyote Creek and these were used translators in the TMDL. The relationship for lead in San Gabriel was very weak and not suitable for developing a translator.

Table 3-3. Relationship between dissolved and total recoverable metals in storm water data in San Gabriel River Reach 2 and Coyote Creek (1997-2005) and CTR default conversion factors.

Metal	LACDPW Storm water data in SGR Reach 2			ACF	LACDPW Storm water data in Coyote Creek			ACF
	N	Slope	R^2		N	Slope	R^2	
Copper	27	0.31	0.09	0.960	44	0.53	0.62	0.960
Lead	11	0.39	0.28	0.709*	15	0.64	0.99	0.784*
Zinc	24	0.47	0.25	0.978	26	0.78	0.73	0.978

*ACF for cadmium and lead are hardness dependent and were calculated based on the hardness in SGR Reach 2 (175 mg/L as Ca CO_3) and Coyote Creek (105 mg/L as Ca CO_3).

The translators should be viewed as provisional since they are based on limited data. The site-specific translators will, on average, overestimate the dissolved fraction since a number of samples a number of samples with measurable total recoverable values but reported undetectable dissolved concentrations were eliminated from the regression analysis. This represented roughly 30% to 40% of the samples from Coyote Creek and roughly 40% to 50% of the samples from San Gabriel River. In this sense the translators will provide a conservative margin of safety. Further study is recommended to revisit the development and application of site-specific translators. The resulting wet-weather numeric targets are presented in Table 3-4.

Table 3-4. Wet-weather numeric targets expressed as µg/L total recoverable metals.

		Copper		Lead		Zinc	
Reach	Median Hardness (mg/L as $CaCO_3$)	Translator	Numeric Target (µg/L)	Translator	Numeric Target (µg/L)	Translator	Numeric Target (µg/L)
San Gabriel Reach 2	175	--	**--**	0.709	**166**	--	--
Coyote Creek	105	0.53	**27**	0.64	**106**	0.78	**158**

*Site-specific translators used for copper, lead and zinc in Coyote Creek. ACF used for translator for lead in San Gabriel Reach 2 assuming hardness value of 175.

4. SOURCE ASSESSMENT

This section identifies the potential sources of metals in the San Gabriel River watershed. In the context of TMDLs, pollutant sources are either point sources or nonpoint sources. Point sources include discharges for which there are defined outfalls such as wastewater treatment plants, industrial discharges, and storm drain outlets. These discharges are regulated through National Pollutant Discharge Elimination System (NPDES) permits. Nonpoint sources, by definition, include pollutants that reach waters from a number of diffuse land uses and source activities that are not regulated through NPDES permits.

4.1 Point Sources

The NPDES permits in the San Gabriel River Watershed include municipal separate storm sewer system (MS4) permits, the Caltrans storm water permit, general construction storm water permits, general industrial storm water permits, major NPDES permits (including publicly owned treatment works), minor NPDES permits, and general NPDES permits. The permits under the jurisdiction of the Los Angeles Regional Board are presented in Table 4-1.

Table 4-1. Summary of Los Angeles Regional Board issued NPDES permits in San Gabriel River watershed. (SOURCE: LARWQCB, 2006).

Type of Discharge	Estuary	Reach 1	Coyote Creek	Reach 2	San Jose Creek	Reach 3 and Above	Total Permits
Municipal Storm Water*	2	2	2	2	2	2	2
Caltrans Storm Water*	1	1	1	1	1	1	1
Industrial Storm Water	-	45	203	8	177	166	599
Construction Storm Water	2	20	36	18	136	132	344
Publicly Owned Treatment Works	--	1	1	--	2	1	5
Major NDPES Discharges	2	--	--	--	--	--	2
Minor NPDES Discharges	--	--	5	1	3	2	11
General NPDES Discharges	5	7	22	4	11	7	56
Construction Dewatering	1	2	4	--	8	1	16
Petroleum Fuel Cleanup Sites	--	--	4	1	--	--	5
VOC Cleanup Sites	--	1	2	--	--	1	4
Hydrostatic Test Water	2	--	1	--	1	--	4
Non-Process Wastewater	--	--	3	--	--	--	3
Potable Water	2	4	8	3	2	5	24

*Municipal and Caltrans permits discharge to all reaches.

The upper portion of Coyote Creek and a portion of the watershed draining to the Estuary are located in Orange County and are under the jurisdiction of the Santa Ana Regional Board. The permits under the jurisdiction of the Santa Ana Regional Board are presented in Table 4-2.

Table 4-2. Summary of Santa Ana Regional Board issued NPDES permits in the Coyote Creek and Estuary subwatersheds (SOURCE: SARWQCB, 2006).

Type of Discharge	No. of Permits
Municipal Storm Water	1
Caltrans Storm Water	1
Industrial Storm Water	207
Construction Storm Water	184
Publicly Owned Treatment Works	0
Major NDPES Discharges	0
Minor NPDES Discharges	2
General NPDES Discharges	
De Minimus Discharges	2
Petroleum and Solvents Cleanup Sites	3

4.1.1. Storm water Permits

Storm water runoff in the San Gabriel River Watershed is regulated through the Los Angeles County MS4 permit, the Long Beach MS4 permit, the Orange County MS4 permit, the statewide storm water permit issued to Caltrans, the statewide Construction Activities Storm Water General Permit and the statewide Industrial Activities Storm Water General Permit.

MS4 Storm Water Permits

In 1990, EPA developed rules establishing Phase I of the NPDES storm water program, designed to prevent pollutants from being washed by storm water runoff into the MS4 (or from being discharged directly into the MS4) and then discharged into local waterbodies. Phase I of the program required operators of medium and large MS4s (those generally serving populations of 100,000 or more) to implement a storm water management program as a means to control polluted discharges. Individual sources of metals within the watershed, which are collected by MS4s and discharged to the river, include automobile break pads, vehicle wear, building materials, pesticides, erosion of paint and deposition of air emissions from fuel combustion and industrial facilities.

The Los Angeles County MS4 permit was renewed in December 2001 as Order No. R4-01-182 and is on a five-year renewal cycle. There are 85 co-permittees covered by this permit, including 84 incorporated cities and the County of Los Angeles. The City of Long Beach MS4 permit was renewed on June 30, 1999 as Order No. R4-99-060 and is on a five-year renewal cycle. It solely covers the City of Long Beach. The Orange County MS4 permit was renewed on January 18, 2002 as Order No. R8-2002-0010. Co-permittees covered by this permit include 25 incorporated cities and Orange County.

Caltrans Storm Water Permit

Caltrans is regulated by a statewide storm water discharge permit that covers all municipal storm water activities and construction activities (State Board Order No. 99-06-DWQ). The Caltrans storm water permit authorizes storm water discharges from Caltrans properties such as the state

highway system, park and ride facilities, and maintenance yards. The storm water discharges from most of these Caltrans properties and facilities eventually end up in either a city or county storm drain which are then discharged to the river.

General Storm Water Permits

In 1990, EPA issued regulations for controlling pollutants in storm water discharges from industrial sites (40 CFR Parts 122, 123, and 124) equal to or greater than five acres. The regulations require discharges of storm water associated with industrial activity to obtain an NPDES permit and to implement Best Available Technology Economically Achievable (BAT) to reduce or prevent nonconventional and toxic pollutants associated with industrial activity, including metals, in storm water discharges and authorized non-storm discharges. In 1999, EPA expanded the program to include storm water discharges from construction sites that resulted in land disturbances equal to or greater than one acre (40 CFR Parts 122, 123, and 124).

On April 17, 1997, State Board issued a statewide general NPDES permit for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities Permit (Order No. 97-03-DWQ, NPDES Permit Nos. CAS000001). As of the writing of these TMDLs, there are approximately 804 dischargers enrolled under the general industrial storm water permit in this watershed (596 under the jurisdiction of the Los Angeles Board and 208 under the jurisdiction of the Santa Ana Regional Board). The potential for metals loading via runoff from these sites is high, especially at metal plating, transit, and recycling facilities. Stenstrom et al. (2005) found that although the data collected by the industrial monitoring program were highly variable, the mean values for copper, lead and zinc were 1010, 2960, and 4960 µg/L, respectively, greatly exceeding applicable CTR values. However, during dry weather, the potential contribution of metals loading from industrial sites is low, because non-storm water discharges are prohibited or controlled by the permit.

On August 19, 1999, State Board issued a statewide general NPDES permit for Discharges of Storm Water Runoff Associated with Construction Activities (Order No. 99-08-DQW, NPDES Permit Nos. CAS000002). As of the writing of these TMDLs, there are 537 dischargers enrolled under the general construction storm water permit in the watershed (350 under the jurisdiction of the Los Angeles Board and 187 under the jurisdiction of the Santa Ana Regional Board). Sources of metals from construction sites include sediment containing metals, construction materials, and equipment used on construction sites. Raskin et al. (2004) found that building materials and construction waste exposed to storm water can leach metals and contribute metals to waterways. However, during dry weather, the potential contribution of metals loading is low because non-storm water discharges are prohibited or controlled by the permit.

4.1.2. Publicly Owned Treatment Works (POTWs)

The LACSD Joint Outfall System is an integrated network of facilities that includes seven treatment plants, five of which are associated with the San Gabriel River Watershed. These five treatment plants (Whittier Narrows, Pomona, Long Beach, Los Coyotes, and San Jose Creek) are connected to the Joint Water Pollution Control Plant (JWPCP) which discharges off of the Palos

Verdes Peninsula. This system allows for the diversion of desired flows into or around each "upstream" plant.

- The most upstream plant is the Pomona WRP (Order No. R4-2004-0099). It has a design capacity of 15 million gallons per day (MGD) and discharges tertiary-treated municipal and industrial wastewater to the South Fork of San Jose Creek. During dry weather, virtually all of the treated effluent is reclaimed for landscape and crop irrigation, as well as for industrial processes.

- The San Jose Creek WRP (Order No. R4-2004-0097) has a design capacity of 100 MGD. It discharges an average of 80 MGD of tertiary-treated municipal and industrial wastewater via three discharge points. Discharge No. 001 to San Gabriel River Reach 1 is the primary discharge outfall for both east and west plants, which is eight miles south of the plant near Firestone Blvd. The river is concrete-lined from the discharge point to the Estuary, about nine miles downstream. A turnout located approximately midway down the pipe is used to divert reclaimed water to spreading grounds. Discharge No. 002 to San Jose Creek is used for groundwater recharge at Rio Hondo and the San Gabriel Coastal Spreading Grounds. San Jose Creek is unlined from the discharge point to the San Gabriel River. Discharge No. 003 delivers treated effluent to the unlined portion of the San Gabriel River Reach 3 as well as the Rio Hondo and San Gabriel Coastal Spreading Grounds.

- The Whittier Narrows WRP (Order No. R4-2002-0142) has a design capacity of 15 MGD. There is one discharge point to the San Gabriel River. Discharge No. 001 discharges to the river about 700 feet upstream from the Whittier Narrows Dam. The tertiary-treated municipal and industrial wastewater generally flows down the river to the San Gabriel River Spreading Grounds.

- The Los Coyotes WRP (Order No. R4-2002-0121) has a design capacity of 37.5 MGD. Tertiary-treated municipal and industrial wastewater is discharged into the San Gabriel River Reach 1, 1,230 feet upstream of the Artesia freeway. About 12% of the total treated effluent is reclaimed for irrigation.

- The Long Beach WRP (Order No. R4-2002-0123) has a design capacity of 25 MGD. Tertiary-treated municipal and industrial wastewater is discharged to Coyote Creek at a point 2,200 feet upstream from the confluence with the San Gabriel River, above the Estuary. A portion of the treated effluent is reclaimed for irrigation.

4.1.3 Major Individual NPDES Permits

Major discharges are POTWs with yearly average flows over 0.5 MGD, industrial sources with yearly average flows over 0.1 MGD, and those with lesser flows but with acute or potential adverse environmental impacts. In addition to the POTWs, there are two major discharges in the watershed, the Haynes generating station, operated by the City of Los Angeles Department of Water and Power (LADWP) and the generating station operated by AES Alamitos, L.L.C. Both plants draw in water from the nearby Los Cerritos Watershed Management Area and discharge into the tidal prism just north of Second St. (Westminster Ave.). The Alamitos plant draws in

water from Los Cerritos Channel and is permitted to discharge up to 1,283 MGD. The Haynes plant draws in water from Alamitos Bay and is permitted to discharge up to 1,014 MGD. The Alamitos and Haynes stations have limits for copper, lead, selenium, and zinc, but they are based on California Ocean Plan objectives. The Ocean Plan objectives are less stringent than the CTR saltwater criteria so there is the potential for the facilities to discharge metals in exceedance of the numeric targets. A memorandum sent from the State Board to the Los Angeles Regional Board (SWRCB 2002) redefined the two power plants as falling under the jurisdiction of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP) and the CTR. These permits are scheduled for renewal in 2006.

4.1.4 Minor Individual NPDES Permits

Minor discharges are all other discharges that are not categorized as a Major. Many of these permits are for episodic discharges rather than continuous flows. Minor permits cover miscellaneous wastes such as ground water dewatering, swimming pool wastes, and ground water seepage. Some of these permits contain effluent limits for metals. However, some of these permits were issued prior to the adoption of CTR and there is the potential for these facilities to discharge metals in exceedance of the numeric targets in these TMDLs. There are 11 minor NPDES permits in the San Gabriel River watershed.

4.1.5 General NPDES Permits

Pursuant to 40 CFR parts 122 and 123, the State Board and the Regional Boards have the authority to issue general NPDES permits to regulate a category of point sources if the sources: involve the same or substantially similar types of operations; discharge the same type of waste; required the same type of effluent limitations; and require similar monitoring. The Los Angeles Regional Board has issued general NPDES permits in the San Gabriel River watershed for the following categories of discharges: construction dewatering, non-process wastewater; petroleum fuel cleanup sites; VOC cleanup sites; potable water; and hydrostatic test water.

There are 16 discharges enrolled under Los Angeles Regional Board Order Nos. R4-2003-0111, 97-043, and 97-045 for construction dewatering. There are three discharges enrolled under Los Angeles Regional Board Order Nos. R4-2004-0058 and 98-055 for non-process wastewater. These permits include CTR-based effluent limitations for metals.

There are five dischargers enrolled under Los Angeles Regional Board Order No. R4-2002-0125 for treated groundwater and other wastewaters from petroleum fuel-contaminated sites. There are four dischargers enrolled under Los Angeles Regional Board Order No. R4-2002-0107 for treated groundwater from VOC-contaminated sites. To enroll under these permits, dischargers must demonstrate that treated groundwater does not exceed the CTR-based water quality criteria for metals. Once enrolled under the permit, dischargers must continue to demonstrate compliance with CTR-based effluent limitations for lead.

There are 24 dischargers enrolled under Los Angeles Regional Board Order No. R4-2003-0108 for groundwater from potable water supply wells. There are four dischargers enrolled under Los Angeles Regional Board Order Nos. R4-2004-0109 and 97-047 for low threat hydrostatic test

water. Discharges enrolled under these permits must meet maximum contaminant levels (MCLs) adopted by the California Department of Health Services. In general, the MCLs for metals are greater than the numeric targets.

The Santa Ana Regional Board has issued general NPDES permits in the Coyote Creek subwatershed for de minimus discharges and for petroleum and solvent cleanup sites. There are two discharges enrolled under Santa Ana Regional Board Order No.03-061 for de minimus threats to water quality. The order states that discharges enrolled under the general permit are not expected to cause toxicity; therefore no toxicity limits are included in the general permit. There are three discharges enrolled under Santa Ana Regional Board Order No. 02-007 for discharges of extracted and treated groundwater from petroleum and solvent cleanup sites. The Order includes CTR-based effluent limitations for lead for freshwater and saltwater discharges from those sites polluted with leaded gasoline.

4.2 Non-point Sources

Atmospheric deposition is a potential nonpoint source of metals to the watershed. Sabin et al. estimated the mass of dry-atmospheric deposition for the Los Angeles River watershed (Sabin et al., 2004). For the purpose of this source assessment, the numbers for the Los Angeles River watershed were extrapolated to the San Gabriel River watershed based on the relative area of each watershed and the relative amount of surface water in each watershed (Table 4-2). Direct atmospheric deposition is the amount of metals deposited directly onto the surface of the river. These numbers are generally small because the actual surface area of the river system is small. Indirect deposition is the amount of metals deposited onto the entire watershed. Metals deposited on the land surface of the watershed may be washed off during rain events and delivered to the river system. The amount of deposited metals available for transport to the river (i.e., not infiltrated) is unknown. In a separate study, Sabin et al. found that for a small impervious catchment, atmospheric deposition could potentially account for 57-100% of the metals in storm runoff generated in the study area (Sabin et al., 2005). This study assumes that all the metals deposited on the catchment were available for removal. However, in large, varied watersheds, such as the Los Angeles River and San Gabriel River watersheds, not all metals deposited on the land surface may be available for removal by runoff. Estimates of metals deposited on land (Table 4-3) are much higher than estimates of storm water loading to the river system (Table 4-10). The loading of metals associated with indirect atmospheric deposition are accounted for in the estimates of the storm water loading. Once metals are deposited on land under the jurisdiction of a storm water permittee, they are within a permittee's control.

Table 4-3. Estimates of dry weather direct and indirect deposition (derived from Sabin et al., 2004).

	Area (square miles)	% Water	Copper (kg/year)	Lead (kg/year)	Zinc (kg/year)
Los Angeles River Watershed	834	0.21%			
Indirect Deposition			16,000	12,000	80,000
Direct Deposition			3	2	10
San Gabriel River Watershed	682	0.36%			
Indirect Deposition			13,084	9,813	65,419
Direct Deposition			4.1	2.8	13.8

Natural background loading of metals is another potential source. This is an unlikely source during dry weather. Natural or open spaces are primarily located in the upper portion of the watershed in the Angeles National Forest (Figure 2). The flow from these areas is relatively small during dry weather and much of it is captured behind dams. The levels of metals concentrations in flow from these areas are also likely to be low. Stein and Yoon (2005) found that metals concentrations from natural areas in Southern California, including two sites in the upper San Gabriel watershed, were below CTR criteria and below concentrations found at developed sites. The mean concentrations for the natural areas were 0.465 μg/L copper, 0.052 μg/L lead, 0.618 μg/L selenium, and 0.471 μg/L zinc during dry weather.

During wet-weather, flow from the upper portion of the watershed can potentially reach the lower portion of the watershed. Stein and Yoon (2005) also found that metals concentrations from natural areas in wet-weather were below CTR criteria and below concentrations found at developed sites. During wet weather, the mean concentrations for the natural areas were 5.27 μg/L copper, 1.42 μg/L lead, 0.77 μg/L selenium, and 21.5 μg/L zinc. Natural sources will be assigned load allocations to address any potential loading during dry and wet weather.

4.3 Quantification of Sources

The San Gabriel River has two distinct flow conditions. During wet-weather periods, flow in the river is generated by storm water runoff in the watershed, which can quickly reach thousands of cubic feet per second. During dry weather, flows are significantly lower and less variable. The major sources of flow are point source discharges, urban runoff, and groundwater baseflow.

4.3.1. Dry-Weather Loading

The total metals loads from the San Jose, Pomona, Whittier Narrows, Los Coyotes, and Long Beach WRPs were estimated using monthly flow and effluent concentration data provided as part of the annual self monitoring reports (Table 4-4). On an annual basis, these POTWs contribute approximately 1,781 kg/year of copper, 1,477 kg/year of lead, 188 kg/year of selenium and 10,992 kg/year of zinc to the San Gabriel River. Much of the water from the Pomona, Whittier Narrows, and San Jose Creek WRPs is recharged; thus, while these values reflect metals loading to the system, some of the metal loadings are lost to recharge.

Table 4-4. Total annual metals loading from POTWs (kg/yr). Data are from LACSD.

Facility	Reach	1997	1998	1999	2000	2001	2002	2003	2004	Ave
					Copper					
Pomona	SJC	36	30	31	44	42	26	22	32	33
San Jose Creek 001e and 002	SGR 1 SJC	703	736	711	784	695	656	655	651	699
San Jose Creek 001w and 003	SGR 1 SGR 3	399	403	398	410	326	189	282	359	346
Whittier Narrows*	SGR 3	119	139	141	104	109	110	106	85	114
Los Coyotes	SGR 1	450	483	462	437	410	310	328	330	401
Long Beach	CC	181	236	197	218	218	136	158	161	188
Total WRP										**1781**
					Lead					
Pomona	SJC	40	30	63	44	42	5	5	12	30
San Jose Creek 001e and 002	SGR 1 SJC	703	515	711	784	417	131	131	130	440
San Jose Creek 001w and 003	SGR 1 SGR 3	359	282	398	410	195	38	56	72	226
Whittier Narrows*	SGR 3	131	97	141	104	87	22	32	21	79
Los Coyotes	SGR 1	900	967	923	437	455	116	82	83	495
Long Beach	CC	362	472	296	218	194	34	40	40	207
Total WRP										**1477**
					Selenium					
Pomona	SJC	4	3	3	4	4	3	3	4	3
San Jose Creek 001e and 002	SGR 1 SJC	77	74	71	78	70	66	66	65	71
San Jose Creek 001w and 003	SGR 1 SGR 3	60	40	40	41	33	19	28	36	37
Whittier Narrows*	SGR 3	12	14	14	10	11	11	11	11	12
Los Coyotes	SGR 1	45	48	46	44	46	39	41	41	44
Long Beach	CC	18	24	20	22	24	17	20	20	21
Total WRP										**188**
					Zinc					
Pomona	SJC	253	182	315	264	210	157	247	373	250
San Jose Creek 001e and 002	SGR 1 SJC	4217	3678	3556	3919	3477	3278	5241	4554	3990
San Jose Creek 001w and 003	SGR 1 SGR 3	3587	2417	2788	2869	1955	1324	2822	2869	2579
Whittier Narrows*	SGR 3	535	1039	988	832	761	767	1064	844	854
Los Coyotes	SGR 1	3601	3866	2769	3062	2732	2713	4506	3300	3319
Long Beach	CC	1321	1062	1379	1306	1211	1020	1960	1471	1341
Total WRP										**10,992**

*The majority of Whittier Narrows flow is discharged to the Rio Hondo, which is part of the Los Angeles River watershed.

The amount of metals loading from POTWs is well defined. The amount of metals loading from storm drains and dry weather runoff is not well defined. In order to evaluate all dry-weather sources of metals in the San Gabriel River watershed, the Southern California Coastal Research Project (SCCWRP) conducted two monitoring events in September 2002 and September 2003 (Ackerman et al., 2004a). The monitoring consisted of synoptic sampling of flow and metals concentrations from WRPs, storm drains and open channels. The first monitoring event was conducted on September 29 and 30, 2002, and the second was conducted on September 14 through 16, 2003. The data collected represent snapshots of the flow distribution and water quality conditions throughout the watershed. During the sampling events, all observed sources of flow to the San Gabriel River system were from storm drains, tributaries, and the Los Coyotes, Long Beach, San Jose, and Pomona WRPs (Table 4-5).

Table 4-5. Measured flow inputs (cfs) to the San Gabriel River (Ackerman et al, 2004a).

	Coyote Creek	San Gabriel	San Jose Creek	Walnut Creek	Total
2002					
Storm drains	10.6	3.1	14.3	1.2	29.2
Tributaries	8.30	-	1.0	6.0	15.3
WRPs	0.04	97.5	58.3	-	155.8
Total	19.0	100.5	73.7	7.23	200.3
2003					
Storm drains	11.9	1.6	13.5	1.7	28.7
Tributaries	7.44	-	6.66	3.9	18.0
WRPs	18.7	104.4	87.3	-	210.4
Total	38.0	106.0	107.4	5.64	257.1

Overall, WRPs contribute about 80% of the flow in the river system during dry-weather. Walnut Creek receives no WRP flow. The Whittier Narrows WRP did not contribute to flow in the San Gabriel River during the two dry-weather sampling events.

The measured concentrations of metals varied between storm drains, open channels, and WRPs (Table 4-6). The concentrations of all metals were greater in storm drains than in WRP discharges. The concentrations of all metals except zinc were greater in open channels than in WRP discharges. This indicates that dry-weather runoff or nuisance flow and/or discharges from other NPDES permitted sources are a significant source of metals in the San Gabriel watershed.

Table 4-6. Mean observed metals concentrations by source (Ackerman et al., 2004a).

	Detection Limit (µg/L)	Storm Drains (µg/L)	Open Channels (µg/L)	WRPs (µg/L)
2002				
Copper	8	15	7.0	nd
Lead	2	2.6	3.0	nd
Selenium	1	1.3	1.9	nd
Zinc	10	134	28	45
2003				
Copper	8	8.0	3.0	nd
Lead	2	1.6	1.9	nd
Selenium	1	1.4	2.7	nd
Zinc	10	99	57	72

nd = non-detectable value

The average concentrations reported in Table 4-6 for copper, lead, and nickel are sometimes less than the detection limit because non-detectable concentrations were treated as zero. Loads were calculated by multiplying the measured flows and concentrations at each sample location. Table 4-7 provides the summary results in terms of total mass emissions of each metal and the relative contribution from each major source.

Table 4-7. Metals loading by source. Samples with non-detectable values treated as zero (Ackerman et al., 2004a).

	Storm Drains	Large Tributaries	WRPs
2002			
Copper	38%	62%	0%
Lead	29%	71%	0%
Selenium	57%	43%	0%
Zinc	14%	8%	78%
2003			
Copper	100%	0%	0%
Lead	25%	75%	0%
Selenium	69%	31%	0%
Zinc	11%	7%	82%

The SCCWRP study assumed all non-detectable values were zero. For WRPs, which contribute the dominant source of flow in the river, minor changes in concentrations can have a major effect on loading estimates. If non-detectable values were treated as ½ the detection limit, for example, the WRPs would appear as the dominant source of loading.

Table 4-8 provides the SCCWRP study results in terms of total mass emissions of each metal and the relative emissions to the four streams in the San Gabriel River system. According to the SCCWRP study, Walnut Creek contributes a large percentage of copper and lead loading. This indicates that additional monitoring is needed for Walnut Creek. There was not enough data to assess potential metals impairments in Walnut Creek (Section 2.2.1).

Table 4-8. Metals loading by reach/tributary Samples with non-detectable values treated as zero (Ackerman et al., 2004a).

	Coyote Creek (%)	San Gabriel River (%)	San Jose Creek (%)	Walnut Creek (%)
2002				
Copper	22%	12%	20%	46%
Lead	55%	14%	8%	24%
Selenium	43%	1%	51%	6%
Zinc	8%	53%	36%	3%
2003				
Copper	49%	2%	29%	20%
Lead	11%	1%	39%	50%
Selenium	4%	0%	93%	2%
Zinc	16%	43%	38%	3%

4.3.2. Dry-Weather Loading to the Estuary

Sources of flow to the Estuary include upstream inputs to Reach 1 and Coyote Creek, the two generating stations, and tidal exchange with the ocean. Upstream sources were evaluated in section 4.3.1. The total metals loads from the Los Alamitos and Haynes generating stations were estimated using effluent monitoring from the two plants (Table 4-9). Both plants sample for monthly flow and semi-annual metals concentrations. Annual average flows were calculated from the monthly average maximum flows, then multiplied by the average effluent concentration to estimate annual loading. On an annual basis, the generating stations contribute approximately 20,000 kg/year of copper, 2,700 kg/year of lead, and 56,000 kg/year of zinc to the Estuary.

Table 4-9. Metals loading to the San Gabriel River Estuary (kg/year total recoverable metals) from the Los Alamitos and Haynes generating stations.

Haynes Station	2000	2001	2002	2003	2004	Average
Flow (MGD)	729	779	848	761*	689	761
Copper (kg/year)	ND	26,583	23,621	10,419	16,752	15,475
Lead (kg/year)	5,238	1,864	ND	1,016	832	1,790
Zinc (kg/year)	16,620	16,334	18,370	21,815	72,489	29,126
Alamitos Station	**2000**	**2001**	**2002**	**2003**	**2004**	**Average**
Flow (MGD)	914	981	735	680	953	853
Copper (kg/year)	6,690	4,200	3,800	3,701	3,972	4,473
Lead (kg/year)	ND	986	841	1,626	1,152	921
Zinc (kg/year)	42,204	23,111	14,359	37,076	15,729	26,496
Total - Both Plants	**2000**	**2001**	**2002**	**2003**	**2004**	**Average**
Copper (kg/year)	6,690	30,784	27,422	14,120	20,725	19,948
Lead (kg/year)	5,238	2,850	841	2,642	1,984	2,711
Zinc (kg/year)	58,824	39,445	32,729	58,891	88,218	55,621

*Flow unavailable for 2003. Average flow used.

Metals loadings from the power plants are approximately ten times greater than the metals loading from POTWs that discharge to Coyote Creek and Reach 1 (Table 4-4).

4.3.4. Wet-Weather Loading

Wet-weather sources of metals are generally associated with the accumulation and wash-off of metals on the land surface during rain events. Metals washed off the land surface are delivered to the river through creeks and storm water collection systems. Wet-weather loading varies depending on the amount of rainfall and size of storms in a given year.

Wet-weather pollutant loading is estimated from the storm water monitoring data collected at the mass emission stations in Coyote Creek and San Gabriel River Reach 2 (LACDPW, 2000-2005). The total runoff volume for a storm season is multiplied by the average metals concentrations for that season (Table 4-10).

Table 4-10. Wet-weather storm water metals loading to the San Gabriel River watershed (kg total recoverable metals). Data are from LACDPW.

San Gabriel River Reach 2	97/98	98/99	99/00	00/01	01/02	02/03	03/04	Average
No. storms sampled for metals	9	13	10	9	6	4	3	--
Total runoff volume (acre-ft)	32,800	12,700	3,777	8,404	3,258	9,684	25,694	--
Copper loading (kg)	990	115	34	89	51	323	403	286
Lead loading (kg)	607	--	--	29	8	161	57	172
Selenium loading (kg)	--	--	--	26	7	32	69	33
Zinc loading (kg)	6,708	785	--	406	120	1,528	1,664	1,868
Coyote Creek	**97/98**	**98/99**	**99/00**	**00/01**	**01/02**	**02/03**	**03/04**	**Average**
No. storms sampled for metals	10	14	12	10	5	4	3	--
Total runoff volume (acre-ft)	60,500	11,500	22,937	14,616	3,672	26,608	43,689	--
Copper loading (kg)	3,224	201	291	166	77	578	1,746	898
Lead loading (kg)	2,166	--	--	45	10	150	850	644
Selenium loading (kg)	--	68	--	45	11	78	195	80
Zinc loading (kg)	25,656	946	1,027	647	203	2,563	7,965	5,573

Average annual metals loading from WRPs (Table 4-4) can be compared to average wet-weather storm water loading (Table 4-10) to provide an indication of the relative contributions from these sources. This comparison can only be made in Coyote Creek because it is the only reach that receives direct POTW discharge (Long Beach WRP) and has a LACDPW storm water mass emission station. On an annual basis, storm water contributes about 83% of the copper loading, 76% of the lead loading, 80% of the zinc loading, and 79% of the selenium loading in Coyote Creek. Wet-weather storm water runoff is thus the dominant source of annual metals loading, which agrees with previous studies in the Los Angeles River and Ballona Creek watersheds (Stein et al., 2003).

5. LINKAGE ANALYSIS

Information on sources of pollutants provides one part of the TMDL equation. To determine the effects of these sources on water quality, it is necessary to determine the assimilative capacity of the receiving water. Variations between wet and dry weather can strongly affect the delivery of metals to the San Gabriel River and the assimilative capacity of the river to accommodate this loading so that water quality standards are met. Therefore, two distinct approaches for the linkage analysis were taken for wet and dry weather. Hydrodynamic and water quality models were used to assess the effects of metals loadings in the San Gabriel River on water quality under both dry- and wet- weather conditions. To estimate the assimilative capacity of the Estuary, a linkage is made based on the volume of water in the Estuary and the influence of tidal exchange.

5.1 Development of the Dry-Weather Model

The dry-weather model was developed to assess in-stream concentrations and sources of copper, lead, and zinc in low-flow conditions. It is included as Appendix I (Tetratech, 2005a). The modeling system consisted of a hydrodynamic model linked with a separate water quality model of the river system. For simulation of hydrodynamics, the one-dimensional (1-D) version of the Environmental Fluid Dynamics Code (EFDC) was used. Stream channel geometry, topographic data, meteorological data, and sources of flow and metals loading were input into the model. Model setup of the river system included the following reaches:

- San Gabriel River
- Coyote Creek
- San Jose Creek
- Walnut Creek

During low-flow conditions, these reaches are rarely linked due to various controls and features in the watershed that impede or divert flows. Therefore, these river reaches were modeled independently for the dry-weather simulation periods.

Data from the two synoptic monitoring events conducted by SCCWRP in September 2002 and September 2003 were used to support the model development. The data were used as model input as well as for comparison to model results. Flow and water quality measurements taken from the storm drains and WRPs were used as inputs to the hydrodynamic and water quality model simulations. The resulting simulated in-stream water quality results were compared with the measured in-stream water quality at corresponding locations from the SCCWRP study.

5.2 Dry-Weather Model Results

Model predictions of in-stream water quality were compared to observed in-stream water quality data, without any additional calibration of modeling parameters to improve the comparison. Based on the comparison, the model was considered successful if the magnitudes and trends of the simulated and observed water quality were similar.

The model results were noticeably impacted by input data with non-detectable values of metals. For the purposes of modeling, inflow data with non-detected metals were assigned values equal to half the detection limit. A sensitivity analysis was then performed in which the data were assigned a value of zero. Assigning values of zero to non-detectable metals in inflow data resulted in lower simulated concentrations of metals in the river.

Overall, the magnitude of simulated in-stream concentrations was similar to the magnitude of observed in-stream concentrations. However, the simulated concentrations do not always compare consistently with the observed in-stream concentrations. This may be due to observed in-stream concentrations that were below detection limits or due to the influence of other factors and sources that are not accounted for in the model.

5.3 Development of the Wet-Weather Model

The wet-weather modeling report is included as Appendix II (Tetratech, 2005b). Metals loading can be associated with sediment loading because of the sorptive properties of metals. To assess the link between sources of metals and the impairment of waters during wet weather, a modeling system was developed to simulate land-use-based sources of sediment and associated metals loads and the hydrologic and hydraulic processes that affect their delivery to the San Gabriel River system. EPA's Loading Simulation Program in C++ (LSPC) was selected to simulate the hydrologic water quality conditions in the San Gabriel River watershed.

The San Gabriel River watershed was divided into 139 sub-watersheds for appropriate hydrologic connectivity and representation (Figure 10). Meteorological data, soils data, stream reach characteristics, hydrologic data, and land use coverage were input into the model. The model was used to simulate total suspended solids and then to simulate metals associated with total suspended solids using potency factors equal to the ratio of metals to total suspended solids. These potency factors were successfully applied in Ballona Creek (Ackerman et al., 2004b) and the Los Angeles River (Tetra Tech, Inc, 2004) and are considered regionally calibrated.

5.4 Wet Weather Model Results

Hydrology is the first model component that was calibrated and validated because an estimation of wet-weather metals loading relies heavily on flow prediction. January 1990 through December 2002 was selected as the hydrology simulation period. Twelve LACDPW and USGS flow gauging stations were used for calibration and/or validation of the model (Figure 3). To account for the extensive hydrological alterations in the watershed, the model was first calibrated for minimally controlled subwatersheds, then calibrated for more controlled subwatersheds, so that observed flow variability could be attributed to man-made alterations. Calibration was assessed through graphical comparison, regression analysis, and relative error in volume of model results and observed data. The model accurately predicted average monthly flow patterns and predicted total and seasonal volumes within an acceptable range of error for the relatively unaltered subwatersheds. The model over-predicted flow in certain cases and under-predicted flow in the more controlled subwatersheds due to hydraulic controls, localized rainfall events, and unaccounted flow discharges from dams.

After calibration, a validation of hydrologic parameters was made through a comparison of model output to observed flows and volumes at selected gages. As was the case for calibration, validation results were assessed through graphical comparison, regression analysis, and relative error in volume of model results and observed data. Overall, the model accurately predicted storm peaks in minimally controlled river segments. For the more-controlled river segments, model results were less accurate due to the lack of data on hydraulic controls in these sub watersheds. In addition, because runoff and resulting flow are highly dependent on rainfall, occasional storms were over-predicted or under-predicted depending on the distance between meteorological and flow gauge stations.

The water quality model was calibrated by comparing model output with pollutographs (plots of concentration vs. time) for total suspended solids, copper, lead, and zinc observed at the LACDPW mass emission stations in San Gabriel River Reach 2 (S14) and Coyote Creek (S13). To assess the predictive capability of the model, the output was graphically compared to observed data. (Attachment C to Appendix II) Pollutographs indicated that the model generally captured the range of observed values for a storm event, but did not always predict the shape of the pollutograph. Misrepresentation of flows in the hydrology model affected predictions of pollutographs and resulting event mean concentrations (EMCs) in the water quality model. To provide additional assessment, observed EMCs were compared to EMCs calculated using hourly model output.

Once calibrated, the water quality model was validated by comparing predicted EMCs with historically observed EMCs at the two LACDPW mass emission stations. During certain periods, observed values of zinc, lead and copper appeared to stay constant because they were reported as non-detects. Non-detects were replaced with one-half the detection limit for comparison with modeled data. Overall, the magnitude of predicted concentrations was similar to the magnitude of observed concentrations. Deviations from the observed data may be caused by localized storms that resulted in higher or lower metals loading, which is determined by the associated modeled flow. This flow is dependent on the proximity of the storm to the meteorological station and model subwatersheds. The model is adequate for predicting EMCs but not refined enough for predicting changes in concentration that occur over the course of the storm.

5.5 Linkage Analysis for the Estuary

The data assessment only indicates the need for water column TMDLs (section 2.2). There is no evidence of sediment impairment in the Estuary. Therefore, if discharges to the Estuary are limited by concentration-based waste load allocations, water quality numeric targets for the Estuary will be attained.

The assimilative capacity of the Estuary is a function of the volume of the Estuary and the tidal prism, which is the volume of water exchanged between an Estuary and the open sea during one tidal period. The head of the Estuary was considered at the 405 freeway, 4900 ft upstream of 7th Street. The tidal range was considered to vary linearly from zero at this location to a maximum of 3.4 ft at the mouth. The tide at the mouth was assumed the same as the Los Patos station ID 427 (Tides & Currents, 2005). Based on the LACDPW Estuary profile plan in Figure 11, the Estuary was divided into two reaches. The first reach is from the mouth, considered at Ocean

Avenue Bridge, to 7th Street. The second reach is between 7th Street and the 405 freeway. The characteristics of the reaches estimated from Figure 11 are presented in Table 5-1.

Table 5-1. San Gabriel River Estuary geometry.

Reach	Length (ft) L	Bottom width (ft) B	Average water depth (ft) H	Levee slope S
1	13000	300	15	3:1
2	4900	300	10	2:1

Based on the data in Table 5-1, the volume of the Estuary is calculated as V = H*L*(B+S*H), giving the volume of each reach as:

$V_1 = 6.73 \times 10^7$ ft^3
$V_2 = 1.57 \times 10^7$ ft^3

With a total average volume of:

$V = 8.3 \times 10^7$ ft^3

Based on the assumption that the tidal range varies linearly from a maximum at the mouth of 3.4 feet to no tide at the 405 freeway, and considering the relative length of each reach, the average tidal ranges (i.e., tidal range at the center of each reach) are:

$R_1 = 2.17$ ft
$R_2 = 0.47$ ft

With the information in Table 5-1, the water surface area for each reach, A = L*(B+2*H*S), is:

$A_1 = 5.07 \times 10^6$ ft^2
$A_2 = 1.67 \times 10^6$ ft^2

The tidal prism, P, calculated as P = A*R (equation (II-6-12) in USACE's Coastal Engineering Manual), at each reach was estimated as:

$P_1 = 1.1 \times 10^7$ ft^3
$P_2 = 0.78 \times 10^6$ ft^3

Giving a total tidal prism for the Estuary of:

$P = 1.18 \times 10^7$ ft^3

The volume at high tide, $V_{HT} = V + P/2$, is therefore:

$V_{HT} = 8.89 \times 10^7$ ft^3, or 665 million gallons

And the volume at low tide, $V_{LT} = V - P/2$, is therefore:

$V_{LT} = 7.71 \times 10^7$ ft^3, or 576 million gallons.

Given the flow from the power plants (1614 MGD from Table 4-9) and the volume of water in Estuary at low tide, it can be assumed that the power plant flow displaces all ocean water in the Estuary at the critical condition and that ocean water provides no excess assimilative capacity.

These findings are consistent with findings in Flow Science (2007), USGS (Rosenberger et al., 2007) and SCCWRP (Ackerman and Stein., In Prep). The conclusions of these studies suggest that most of the flow in the estuary is from the power plant, there is little dilution from ocean water, the net flow is largely unidirectional toward the ocean, and the residence time for a parcel of water is short. USGS estimated the tidal prism to be roughly 2.78×10^7 cubic feet. This corresponds to a tidal flow of 1236 cfs over the course of a 6.21 tidal cycle. The mean discharge from the power plants during the study was 777 cfs but could be as high as 3560 cfs (based on a design flow of 2.3 billion gallons per day). Since dry-weather lows from the rivers are around 156 cfs, the power plant discharge represents about 80 to 95% of the flow.

More sophisticated models may be developed in the future which will account for upstream inputs, tidal exchange, and mixing and will help to better characterize the relative sources and fate and transport of metals loading to the Estuary. The Southern California Coastal Water Research Project is developing a watershed model that may be useful in verifying the loading capacities determined in this TMDL. However until that time the simplest and most straight forward approach to ensuring water quality standards are attained is to ensure that effluent concentrations from the power plants are at or below the water quality standard.

5.6 Summary of Linkage Analysis

The dry- and wet-weather models provide an understanding of the relationship between metals loading and targets. The dry-weather model is able to predict the overall magnitude of in-stream concentrations but not able to consistently predict the instantaneous concentrations at any given time. The wet-weather model was able to predict flow and magnitudes of concentrations in the minimally controlled river segments but less able in the more-controlled river segments. Because they could not predict concentrations on short time scales, neither the dry- or wet-models were used to develop loading capacity, but they provide an understanding of the relationship between metals loading and targets. While not used to develop loading capacity, the models should prove useful in evaluating management scenarios to help achieve load reductions in TMDL implementation. For the Estuary, the linkage analysis demonstrates that power plant flow comprises the majority of the volume of water in the Estuary and that the ocean water provides no excess assimilative capacity.

6. TOTAL MAXIMUM DAILY LOADS

This section explains the development of the loading capacities (i.e., TMDLs) and allocations for metals in the San Gabriel River watershed. EPA regulations require that a TMDL include waste load allocations (WLAs), which identify the portion of the loading capacity allocated to existing and future point sources (40 CFR 130.2(h)) and load allocations (LAs), which identify the portion of the loading capacity allocated to nonpoint sources (40 CFR 130.2(g)). As appropriate, waste load allocations are assigned to wastewater treatment plants, storm water discharges, and other NPDES discharges. Load allocations are assigned to open space and atmospheric deposition. As discussed in previous sections, the flows, sources, and the relative magnitude of inputs vary between dry-weather and wet-weather conditions. TMDLs are therefore developed to address dry- and wet-weather conditions separately.

6.1 Wet-Weather TMDLs for Copper, Lead and Zinc

During wet weather, the allowable load is a function of the volume of water in the river. Given the variability in wet-weather flows, the concept of a single critical flow is not justified. Instead, a load-duration curve approach is used to establish the wet-weather loading capacity. A load-duration curve is developed by multiplying the wet-weather flows by the in-stream numeric target. The result is a curve that identifies the allowable load for a given flow. Table 6-1 presents the equations used to calculate the load duration curves. The wet-weather TMDLs for metals are defined by these load-duration curves.

Separate wet-weather TMDLs are developed for San Gabriel Reach 2 and Coyote Creek. In San Gabriel River Reach 2, wet-weather TMDLs apply when the maximum daily flow in the river is equal to or greater than 260 cfs as measured at USGS station 11085000, located at the bottom of Reach 3 just above the Whittier Narrows Dam (see Section 3, Numeric Targets). In Coyote Creek, wet-weather TMDLs apply when the maximum daily flow in the creek is equal to or greater than 156 cfs as measured at LACDPW flow gauge station F354-R, located at the bottom of the creek, just above the Long Beach WRP.

Table 6-1. Wet-weather loading capacities (TMDLs) for metals (total recoverable metals).

Reach	Copper (kg/day)	Lead (kg/day)	Zinc (kg/day)
San Gabriel Reach 2	--	Daily storm volume x 166 μg/L	--
Coyote Creek	Daily storm volume x 27 μg/L	Daily storm volume x 106 μg/L	Daily storm volume x 158 μg/L

The daily storm volume is equal to the total daily flow either in San Gabriel River Reach 2 or Coyote Creek.

Wet-weather allocations are assigned to all upstream reaches and tributaries of San Gabriel River Reach 2 and Coyote Creek because they potentially drain to these impaired reaches during wet weather. Allocations are assigned to both point and nonpoint sources. Concentration-based waste load allocations are developed for the POTWs and other non-storm water point sources. Mass-

based load allocations are developed for open space and direct atmospheric deposition. A grouped mass-based waste load allocation is developed for storm water permittees (MS4s, Caltrans, General Industrial, and General Construction) by subtracting the load allocations from the total loading capacity. These wet-weather allocations are presented in tables 6-2 and 6-3.

Table 6-2. Wet-weather allocations for lead in San Gabriel River Reach 2. Concentration-based allocations apply to non-stormwater NPDES discharges. Stormwater allocations are expressed as a percent of load duration curve. Mass-based values presented in table are based on a flow of 260 cfs (daily storm volume = 6.4 x10^8 liters).

Waste Load Allocations (San Gabriel River Reach 2)	Percent area	Lead Allocations	Mass- based Values
POTWs	NA	166 ug/l	0.7 kg/d
Other NPDES	NA	166 ug/l	NA
Municipal Stormwater	49%	49% * 166 ug/l * Daily Storm Volume	51.8 kg/d
Industrial Stormwater	2.2%	2.2% * 166 ug/l * Daily Storm Volume	2.3 kg/d
Construction Stormwater	0.7%	0.7% * 166 ug/l * Daily Storm Volume	0.8 kg/d
Load Allocations (San Gabriel River Reach 2)			
Open Space	48%	48% * 166 ug/l * Daily Storm Volume	50.2 kg/d
Air Deposition	0.4%	0.4% * 166 ug/l * Daily Storm Volume	0.4 kg/d

Table 6-3. Wet-weather allocations for copper lead and zinc in Coyote Creek. Concentration-based allocations apply to non-stormwater NPDES discharges. Stormwater allocations are expressed as a percent of load duration curve. Mass-based values presented in table are based on a flow of 156 cfs (daily storm volume = 3.8 x10^8 liters).

Waste Load Allocations (Coyote Creek)	Percent area	Copper	Lead	Zinc
POTWs	NA	27 ug/l	106 ug/l	158 ug/l
Other NPDES	NA	27 ug/l	106 ug/l	158 ug/l
Municipal Stormwater	91.5%	9.41 kg/d	36.9 kg/d	55.0 kg/d
Industrial Stormwater	3.5%	0.356 kg/d	1.40 kg/d	2.1 kg/d
Construction Stormwater	5.0%	0.513 kg/d	2.07 kg/d	3.0 kg/d
Load Allocations (Coyote Creek)				
Open Space	0%	0	0	0
Air Deposition	0.2%	0.022 kg/d	0.09 kg/d	0.1 kg/d

6.1.1. Wet-weather load allocations

An estimate of direct atmospheric deposition is developed based on the percent area of surface water in the watershed. Approximately 0.4% of the watershed area draining to San Gabriel River Reach 2 is comprised of water and approximately 0.2% of the watershed area draining to Coyote Creek is comprised of water. The load allocation for atmospheric deposition is calculated by multiplying these percentages by total loading capacities. The loadings associated with indirect deposition are included in the wet-weather storm water waste load allocations. Once metals are deposited on land under the jurisdiction of a storm water permittee, they are within a permittee's control. As was done for dry-weather, open space load allocations are calculated by multiplying the percent area of open space in the watershed not served by storm drains by the total loading capacity. Open space comprises 0% of the Coyote Creek subwatershed and approximately 47% of the San Gabriel River watershed that drains to Reach 2 [2].

[2] As determined by Regional Board staff through GIS mapping using County storm drain layers.

6.1.2. Wet-weather waste load allocations for storm water permittees

Wet-weather waste load allocations for storm water permittees are calculated by subtracting the load allocations for open space and direct air deposition from the total loading capacity Allocations for NPDES-regulated municipal storm water discharges from multiple point sources can be expressed as a single categorical waste load allocation when data and information are insufficient to assign each source or outfall an individual allocation. The storm water allocations may be fairly rudimentary because of data limitations and variability in the system. The combined storm water waste load allocation is further allocated to the general industrial, general construction, MS4 and Caltrans permits based on their percent area of the developed portion of the watershed. The developed portion of the watershed includes all land uses except open space and water. The total area covered by facilities enrolled under the general construction and industrial storm water permits was obtained from the State Board database. This was subtracted from the total developed area to obtain a rough estimate of the area covered by the MS4 and Caltrans permittees. The areas associated with each permit type were then divided by the total developed area to obtain the percentages in Tables 6-2 and 6-3. The MS4 permittees and Caltrans share a waste load allocation because there is not enough data on the relative reach-specific extent of MS4 and Caltrans areas.

6.1.3. Wet-weather waste load allocations for POTWs and other NPDES permits.

Concentration-based WLAs (Table 6-2 and 6-3) are established for the POTWs and other non-storm water permits to ensure that these sources do not contribute to exceedances of wet-weather numeric targets.

6.2 Dry-Weather TMDL for Copper in San Gabriel River Estuary

Dry-weather allocations are assigned to sources that discharge directly to the estuary and to upstream sources that discharge indirectly to the estuary via San Gabriel River Reach 1 and Coyote Creek (Table 6-4).

Table 6-4. Direct and indirect sources discharging to the San Gabriel River Estuary

Upstream Sources (San Gabriel River Reach 1 and Coyote Creek)	Direct Sources (Estuary)
WRPs	Power Plants
Non-Storm Water Point Sources	Non-Storm Water Point Sources
Storm Water	Storm Water
Direct Air	Direct Air

The dry-weather TMDL for the estuary is calculated by multiplying the numeric target by the volume of flow to the estuary. Tidal exchanges provide limited if any assimilative capacity because the flow from the power plants is sufficient to displace all ocean water in the estuary. Therefore, the concentration of total copper in the estuary is a function of upstream and direct sources (Equation 5).

$$\mathbf{TMDL = C_t{*}Q_t = C_{us}{*}Q_{us} + C_{ds}{*}Q_{ds}} \qquad \textbf{Equation (5)}$$

Where:

C_t = Numeric target for total copper in the estuary = 3.7 µg/L
Q_t = Total flow to estuary
C_{us} = Concentration of copper in upstream sources
Q_{us} = Upstream flow
C_{ds} = Concentration of copper in direct sources
Q_{ds} = Direct source flow

Concentration-based allocations were first developed for upstream source which discharge to the estuary indirectly based on the freshwater CTR criteria for San Gabriel Reach 1 and Coyote Creek (discussed in 6.2.1). Concentrations-based allocations for direct sources were back-calculated using equation 5 (discussed in 6.2.2).

6.2.1 Upstream Sources: Dry-weather Copper Allocations for San Gabriel River Reach 1 and Coyote Creek

San Gabriel River Reach 1 and Coyote Creek discharge to the estuary. Waste load allocations and load allocations for copper are developed to address point and nonpoint sources which discharge into these reaches.

Non-storm water point sources that discharge to Reach 1 and Coyote Creek receive copper allocations based on freshwater criteria and upstream median dry-weather hardness values[3] to ensure that these sources do not contribute to copper exceedances in the estuary while considering their relative contribution of flow. This results in concentration-based copper allocations equal to 18 µg/L for Reach 1 sources and 20 µg/L for Coyote Creek sources.

Storm water permittees that discharge to San Gabriel Reach 1 are assigned the same concentration-based copper allocations as the non-storm water discharges (18µg/L) because flow in Reach 1 is comprised almost entirely of WRP flow and any non-WRP urban runoff is insignificant[4]. In Coyote Creek the non-WRP urban runoff is much more significant. The median non-WRP Coyote Creek flow is equal to 19 cfs, measured at LACDPW Station F354-R. A mass-based loading capacity of 0.943 kg/d was calculated by multiplying the target of 20 ug/l by by the median non-WRP flow. A dry-weather stormwater allocation of 0.941 kg/d was assigned after accounting for potential loadings from direct atmospheric deposition.

[3] Median dry-weather hardness at receiving water station R-4, below San Jose Creek and Los Coyotes WRP outfalls in Reach 1 is 217 mg/L as $CaCO_3$. Median dry-weather hardness at receiving water station R-A, below Long Beach WRP outfall in Coyote Creek is 249 mg/L as $CaCO_3$.

[4] Reach 1 flows were obtained from long-term flow records (1990-2005) at LACDPW station F42B-R, located just above Spring Street and below the Los Coyotes and San Jose Creek outfalls. The median flow at this gauge is 114 cfs. Since the gauge is below the WRP outfalls, the average annual WRP flow (obtained from San Jose Creek and Los Coyotes 2000-2005 annual reports) is subtracted from the median gauge flow to obtain the non-WRP flow. The total average annual flow from the WRPs is 115 cfs, which is greater than the flow measured at station F42B-R. The difference between the WRP flow and the measured flow is within the error of the flow gauge.

As shown in Table 4-3, dry-weather direct atmospheric deposition rates for copper were extrapolated to the San Gabriel River watershed based on previous studies in the Los Angeles River watershed (Sabin et al., 2004). To calculate reach-specific direct deposition, direct deposition for the entire watershed (0.0113 kg/day) is multiplied by the relative area of water in the Reach 1 and Coyote Creek subwatersheds as compared to the area of water in the entire watershed[5]. Indirect deposition of metals is accounted for in the allocations to storm water. Once metals are deposited on land under the jurisdiction of a storm water permittee, they are within a permittee's control.

"Open space" refers to opens space that discharges directly to the river and not through the storm drain system. Once drainage from open space is collected by the storm drain system it becomes a point source and is included with the storm water allocation. There is no open space in the Reach 1, or Coyote Creek subwatersheds that is not served by storm drains [6]. Open space therefore receives a load allocation equal to zero. Copper allocations for all sources in Reach 1 and Coyote Creek are shown in Table 6-5.

Table 6-5 Dry-weather copper waste load and load allocations for San Gabriel Reach 1, and Coyote Creek (total recoverable metals).

Waste Load Allocations	San Gabriel River Reach 1	Coyote Creek
POTWs	18 ug/l	20 ug/l
Other NPDES	18 ug/l	20 ug/l
Municipal Stormwater	18 ug/l	0.941 kg/d
Industrial Stormwater	0	0 kg/d
Construction Stormwater	0	0 kg/d
Load Allocations		
Open Space	0 kg/d	0 kg/d
Air Deposition	0.0027 kg/d	0.002 kg/d
TMDL		**0.943 kg/d**

*Also applies to storm water sources in San Gabriel River Reach 1.

For accounting purposes, it is assumed that Caltrans and the general storm water permittees discharge entirely to the MS4 system. This assumption has been supported though review of the permits. A zero waste load allocation is assigned to all industrial and construction stormwater permits during dry weather. NPDES Permit Nos. CAS000001 and CAS000002 already prohibit non-storm water discharges with few exceptions as discussed in Section 4.1.1. The dry-weather storm water allocation is shared by the MS4 permittees and Caltrans. It is not possible to divide this allocation because there are not enough data on the relative reach-specific extent of MS4 and Caltrans areas.

[5] There are 1555 acres of water in the entire watershed, 37.4 acres of water in the Reach 1 subwatershed (2.4%), and 269 acres in the Coyote Creek subwatershed (17%).

[6] As determined through GIS mapping using County storm drain layers.

6.2.2 Direct Sources: Dry-weather Allocations for Sources that discharge to the Estuary

The upstream indirect dischargers' relative contribution of flow is small compared to the power plants, which discharge directly to the Estuary. Upstream flow is approximately 157 cfs or 101 MGD[7]. The combined power plant design flow is 2297 MGD. Due to their differences in flow, the metals loading from the power plants is approximately ten times greater than the metals loading from the WRPs. Based on Equation 5, given the allocations assigned to upstream sources and a combined power plant design flow of 2297 MGD, the power plants must receive a concentration-based waste load allocation for copper equal to 3.1 µg/L in order to meet the numeric target of 3.7 µg/L for the estuary.

It is possible that the source water used by the plant may be the source of the copper contamination. For the Alamitos plant, which draws in once-through cooling water from Los Cerritos Channel, the intake water has an average copper concentration of 2.1 µg/L. Three out of 22 samples of intake water (from 2000-2004) had copper concentrations greater than the waste load allocation of 3.1 µg/L. For the Haynes plant, which draws in once-through cooling water from Alamitos Bay, the concentration of copper in the intake water averaged 12.2 µg/L, with all samples (from 2001-2005) exceeding the waste load allocation of 3.1 µg/L. Special studies could be conducted to assess the quality of the source water and identify ways to alleviate the problem. Special studies may also be conducted to develop a site-specific water effects ratio for copper in the estuary.

The other direct discharges to the Estuary, including storm water and non-storm water point sources, are assigned concentration-based waste load allocations equal to the Estuary copper numeric target of 3.7 µg/L. Their relative flow of these sources is unknown, so it is not possible to assign them mass-based waste load allocations.

Atmospheric deposition can be calculated from previous studies and scaled to the estuary subwatershed based on the relative area of water in the Estuary as compared to the area of water in the entire watershed (6.8 %), resulting in an allocation of 7.75×10^{-4} kg/day. This load allocation is insignificant compared to loading from other sources. For example, if the power plants were assigned a mass-based allocation based on their design flow (3560 cfs), the allocation would be 27 kg/day. The load allocation for direct air is essentially zero.

There is no open space in the Estuary subwatershed that is not served by storm drains [8]. Open space therefore receives a load allocation equal to zero. A zero waste load allocation is assigned to all industrial and construction stormwater permits during dry weather. The dry-weather storm water allocation is shared by the MS4 and Caltrans permittees. Dry-weather allocations for all sources in the San Gabriel River Estuary are presented in Table 6-6.

[7] Equal to the combined median flow at LACDPW gauge F42B-R (114 cfs), located at the bottom of Reach 1 (below the San Jose Creek and Los Coyotes Outfalls), median flow at LACDPW flow gauge F354-R (19 cfs), located near the bottom of Coyote Creek (above the Long Beach WRP outfall), and median Long Beach WRP flow (24 cfs).
[8] As determined through GIS mapping using County storm drain layers.

Table 6-6 Dry-weather copper waste load and load allocations for the Estuary (total recoverable metals).

Point Sources (San Gabriel River Estuary)	Waste Load Allocations
Power Plants	3.1 ug/l
Other NPDES	3.7 ug/l
Municipal Stormwater	3.7 ug/l
Industrial Stormwater	0
Construction Stormwater	0
Non Point Sources (San Gabriel River Estuary)	**Load Allocations**
Open Space	0 kg/d
Air Deposition	<0.001 kg/d

6.3 Dry-Weather Selenium TMDL for San Jose Creek

The dry-weather selenium TMDL for San Jose Creek is concentration based. Concentrations based allocations are assigned to point and nonpoint sources in San Jose Creek Reach 1 and Reach 2 to meet the selenium target of 5 ug/l in San Jose Creek Reach 1. This approach was taken because selenium is a naturally occurring element that is present in marine sedimentary soils that are present in the area (Orange County 2006). In addition, many of the non-storm water point sources have intermittent flow making calculation of mass-based allocations difficult. The lack of consistent dry-weather flows throughout the reach and the number of episodic discharges make the application of mass-based allocations for this reach impractical. Providing concentration-based limits are designed to ensure that numeric targets will be attained.

The LACDPW flow gauge F312B-R was used to estimate dry-weather flows in San Jose Creek Reach 1. This gauge is located at 7th Avenue, above San Jose Creek WRP outfall No. 002 but well below the Pomona WRP which discharges to the South Fork of San Jose Creek. During dry-weather most of the effluent flow from the Pomona plant is reclaimed for landscape, crop irrigation, or industrial processes. The median flow at this station is 19 cfs. This station is dry about 10% of the time. Since nearly all Pomona flow is reused and does not enter San Jose Creek, the long-term median flow at this station 19cfs provides an estimate of dry-weather urban runoff.

Concentration-based waste load allocations of 5 ug/l are assigned to the Pomona WRP, the San Jose Creek WRP and to all other non-storm water point sources. Selenium concentrations in the effluent from these two WRP are generally less than 1 ug/l. The permit for Pomona does not currently have an effluent limit for selenium. This was based on an analysis of effluent data that show no reasonable potential for exceedances of the selenium criteria. Selenium concentrations from the San Jose WRP effluent are also low. However, selenium concentrations in the receiving water near the plant at times will exceed the selenium criteria (See Table 2-6). Therefore, effluent limits for selenium have been established for the San Jose Creek WRP. The use of concentration-based allocations allows the two WRPs to expand to their design capacity while meeting numeric targets.

A mass-based loading capacity for the non-WRP dry-weather urban runoff can be calculated by multiplying the selenium target of 5 ug/l by a median flow of 19 cfs obtained from long-term flow data at LACDPW flow gauge F312B-R to obtain a value of 0.232 kg/d. The contribution

from open space which represents about 1.8% of the area with the San Jose Creek subwatershed[9] is estimated to be 0.004 kg/d. The remainder of the loadings (0.228 kg/d) are attributed to dry-weather urban runoff from stormwater which are regulated through stormwater permits (MS4s, Caltrans, General Industrial, and General Construction). As discussed in Section 4.1.1, the stormwater permits for general industrial and construction activities (NPDES Nos. CAS000001 and CAS000002) generally prohibit dry-weather discharges.

No studies on atmospheric deposition of selenium have been conducted, but it is believed to be an insignificant source. Selenium is present in local marine sedimentary rocks (Orange County, 2006). It is presumed that much of the selenium results from natural soils in the watershed. This assumption is corroborated by the fact that many of the impairments in San Jose Creek occur after the channel becomes soft-bottomed.

Special studies will allow further assessment of sources of selenium in San Jose Creek. Other potential sources of selenium include activities that mobilize groundwater to the surface (e.g. dewatering activities), irrigation of soils that are naturally high in selenium, and discharges from petroleum-related activities (EPA, 2000).

In the interim, concentration-based wasteload allocations are assigned to all point sources. The resulting allocations for all sources in San Jose Creek Reach 1 and Reach 2 are presented in Table 6-7.

Table 6-7 Selenium allocations for San Jose Creek Reach 1 and Reach 2 (total recoverable metals).

Point Sources (San Jose Creek Reach 1 and 2)	**Waste Load Allocations**
POTWs	5 ug/l
Other NPDES	5 ug/l
Municipal Stormwater	5 ug/ll
Industrial Stormwater	5 ug/l
Construction Stormwater	5 ug/l
Nonpoint Sources (San Jose Creek Reach 1 and 2)	**Load Allocations**
Open Space	5 ug/l
Air Deposition	0

6.4 Margin of Safety

TMDLs must include a margin of safety to account for any lack of knowledge concerning the relationships between pollutant loads and their effect on water quality. This uncertainty is limited because the TMDLs are simply equal to the numeric targets multiplied by the median flow in dry weather and the numeric targets multiplied by actual flow in wet-weather. The primary sources of uncertainty are related to assumptions made in developing numeric targets. The use of default conversion factors is an implicitly conservative assumption, which is applied to the margin of safety. The conversion factors are defined as the fraction of dissolved metals divided by the total metals concentration. For the dry-weather copper target, it has been shown in previous TMDLs that the default conversion factor overestimates the fraction of copper in the dissolved form. For the wet-weather copper, lead, and zinc targets, evaluation of the storm water data compared to

[9] As determined through GIS mapping using County storm drain layers.

the default conversion factor showed that the default conversion factor overestimates the fraction of metal in the dissolved form. The default translator was applied to wet-weather in San Gabriel Reach 2. The site specific translators are developed in this TMDL for copper, lead and zinc in Coyote Creek are somewhat less conservative than the default CTR values. However based on studies from the scientific literature they also tend to overestimate the dissolved fraction in stormwater. This difference provides an implicit margin of safety.

7. IMPLEMENTATION RECOMMENDATIONS

This section describes the implementation procedures and regulatory mechanisms that could be used to provide reasonable assurances that water quality standards will be met.

7.1. Nonpoint Sources

Nonpoint sources may be regulated through the authority contained in sections 13263 and 13269 of the Water Code, in conformance with the State Water Resources Control Board's Nonpoint Source Implementation and Enforcement Policy, and the Conditional Waiver for Discharges from Irrigated Lands, adopted by the Los Angeles Regional Water Quality Control Board on November 3, 2005.

7.2. POTWs and Other Non-storm Water NPDES Permits

NPDES permit limitations will need to be consistent with the concentration-based WLAs established for the POTWs and other point sources in these TMDLs. Permit limits would need to meet the water quality targets established in these TMDLs and maintain water quality standards in the San Gabriel River. Permit writers could translate waste load allocations into effluent limits by applying the SIP procedures or other applicable engineering practices authorized under federal regulations. Wet-weather WLAs will not be used to determine monthly permit limits but will only be used in a determination of a daily limit. For permits subject to both dry- and wet-weather WLAs, EPA expects that permit writers would write a monthly limit based on the dry-weather WLA and two separate daily maximum limits based on dry- and wet-weather WLAs.

7.3 General Industrial Storm Water Permits

The dry-weather waste load allocation equal to zero applies to unauthorized non-storm water flows, which are prohibited by NPDES Permit Nos. CAS000001. It is anticipated that the dry-weather waste load allocations will be implemented in future general permits through the requirement of improved BMPs to eliminate the discharge of non-storm water flows.

The wet-weather mass-based waste load allocations for the general industrial storm water permittees may be incorporated into the State Board general permit upon renewal or into a watershed-specific general permit developed by the Regional Board

7.4 General Construction Storm Water Permits

Waste load allocations for the general construction storm water permits may be incorporated into the State Board general permit upon renewal or into a watershed-specific general permit developed by the Regional Board.

7.5 MS4 and Caltrans Storm Water Permits

Grouped dry-weather and wet-weather waste load allocations apply to the MS4 and Caltrans permits (Tables 6-1, 6-2, 6-3, 6-5, 6-6 and 6-7). EPA regulation allows allocations for NPDES-regulated storm water discharges from multiple point sources to be expressed as a single categorical waste load allocation when the data and information are insufficient to assign each source or outfall individual WLAs. The shared allocations could be incorporated into the

Caltrans permit and all NPDES-regulated municipal storm water discharges in the San Gabriel River watershed, including municipalities enrolled under the Los Angeles County MS4 permit, the City of Long Beach MS4 permit, and the Orange County MS4 permit. Figure 12 shows the municipalities located in each San Gabriel River subwatershed. Table 7-1 identifies the cities in the San Gabriel Watershed by watershed subbasin.

Table 7-1. List of cities in San Gabriel Watershed by watershed subbasin.

	Walnut Creek	San Jose Creek	San Gabriel Reach 5	San Gabriel Reach 4	San Gabriel Reach 3	San Gabriel Reach 2	San Gabriel Reach 1	Coyote Creek
Anaheim								X
Arcadia				X				
Artesia							X	X
Azusa	X		X					
Baldwin Park	X			X	X			
Bellflower							X	
Brea								X
Buena Park								X
Cerritos							X	X
Chino Hills								X
Claremont	X	X						
Covina	X							
Cypress								X
Diamond Bar		X						X
Downey						X	X	
Duarte			X					
El Monte				X	X			
Fullerton								X
Garden Grove							X	X
Glendora	X		X					
Hacienda Heights								X
Hawaiian Gardens								X
Industry	X	X			X	X		
Irwindale	X		X	X	X			
La Habra								X
La Habra Heights		X						X
La Mirada								X
La Palma								X
La Puente	X	X			X			
La Verne	X	X						
Lakewood							X	X
Long Beach							X	X
Los Alamitos							X	X
Norwalk							X	X
Paramount							X	
Pico Rivera					X	X		
Placentia								X
Pomona	X	X						
San Dimas	X	X						
Santa Fe Springs						X	X	X
Seal Beach							X	
South El Monte					X			
Walnut	X	X						
West Covina	X	X						
Whittier		X			X	X		X
Yorba Linda								X

8. MONITORING

When the Regional Board adopted metals TMDLs for this watershed, they included a monitoring plan. We consider the monitoring plan to be appropriate and recommend that the Regional Board implement it. Under the Regional Board plan, there are three objectives of monitoring associated with the TMDL. The first is to collect data (e.g., hardness, flow, and background concentrations) to evaluate the uncertainties and assumptions made in development of the TMDL. The second is to collect data to assess compliance with the waste load allocations. The third is to collect data to evaluate potential management scenarios. To achieve these objectives, a monitoring program will need to be developed for the TMDL that consists of three components: (1) ambient monitoring, (2) compliance assessment monitoring and (3) special studies.

8.1 Ambient Monitoring

According to the Regional Board, an ambient monitoring program throughout the San Gabriel River and its tributaries is necessary to ensure that water quality standards are attained and to track trends in water quality improvements. Another goal is to provide background information on hardness values and the partitioning of metals between the total recoverable and dissolved fraction to refine load and waste load allocations.

The MS4 and Caltrans NPDES permittees assigned waste load allocations are jointly responsible for implementing the ambient monitoring program. The ambient monitoring program shall contain monitoring in all reaches and major tributaries of the San Gabriel River, including but not limited to additional dry- and wet-weather monitoring in the San Gabriel River Reaches 4 and 5 and Walnut Creek, additional dry-weather monitoring in San Gabriel River Reach 2, and additional wet-weather monitoring in San Jose Creek, San Gabriel River Reaches 1 and 3, and the Estuary.

Ambient monitoring efforts are already underway in the watershed. As part of their NPDES permit requirements for the Long Beach, Los Coyotes, Whittier Narrows, San Jose Creek and Pomona WRPs, LACSD developed a watershed-wide monitoring program for the San Gabriel River watershed. The project is funded by LACSD and managed through SCCWRP and the Los Angeles and San Gabriel Rivers Watershed Council with participation of a multistakeholder workgroup. Participants in the workgroup include LACDPW and other Los Angeles and Orange County MS4 permittees. The program design includes expanded ambient monitoring, coordinated multi-agency monitoring efforts, and a framework for periodic and comprehensive assessments of conditions in the watershed. These efforts are being coordinated and integrated with LACSD's ongoing NPDES sampling in San Jose Creek, San Gabriel River Reach 3 and Reach 1 and Coyote Creek (Table 2-5). Integration of monitoring programs to reduce redundancy and increase efficiency is a major goal of the San Gabriel watershed-wide program. The MS4 and Caltrans NPDES permittees are encouraged to participate in the San Gabriel watershed-wide monitoring program efforts to leverage resources.

8.2 TMDL Effectiveness Monitoring

TMDL effectiveness monitoring requirements should be specified in permits to determine if the waste load allocations are achieved. For the POTWs and power plants, daily and monthly effluent monitoring requirements should be developed to ensure compliance with waste load allocations.

Stormwater permittees should be encouraged to develop a monitoring program that will not only assess individual compliance, but will assess the effectiveness of chosen BMPs to reduce pollutant loading on an industry-wide or permit category basis. MS4 permittees and those enrolled under industrial and construction stormwater permits should be encouraged to participate in such programs. Responsible parties are encouraged to coordinate with the San Gabriel watershed-wide monitoring program to avoid duplication and reduce costs.

8.2.1 Dry-weather TMDL Effectiveness Monitoring

Under the Regional Board plan, the storm water NPDES permittees will be found to be effectively meeting the dry-weather waste load allocations if the in-stream pollutant concentration or load at the first downstream effectiveness monitoring location is equal to or less than the corresponding concentration- or load-based waste load allocation. Alternatively, effectiveness of the TMDL may be assessed at the storm drain outlet based on the numeric target for the receiving water. For storm drains that discharge to other storm drains, effectiveness will be based on the waste load allocation for the ultimate receiving water for that storm drain system. The final dry-weather monitoring stations shall be located in San Jose Creek Reach 1 and the Estuary. At a minimum the sampling frequency should be sufficient to generate enough samples to evaluate status of the waterbody relative to the State Board listing policy.

8.2.2 Wet-weather TMDL Effectiveness Monitoring

Under the Regional Board plan, the storm water NPDES permittees will be found to be effectively meeting wet-weather waste load allocations if the load at the downstream monitoring location is equal to or less then the loading capacity (Table 6-1). For practical purposes, this is when the EMC for a flow-weighted composite is less than or equal to the numeric target. Responsible agencies shall sample at least 4 wet-weather events where flow meets wet-weather conditions (260 cfs in San Gabriel River Reach 2 and 156 cfs in Coyote Creek) in a given storm season (November to March). Final wet-weather TMDL effectiveness monitoring stations may be located at the existing LACDPW mass emission sites in San Gabriel Reach 2 and Coyote Creek.

8.3 Special Studies

Additional monitoring and special studies may be needed to evaluate the uncertainties and the assumptions made in development of these TMDLs. The results of special studies may be used to reevaluate waste load allocations if the TMDLs are reconsidered by the Regional Board.

Special studies may be warranted to evaluate the numeric targets. Studies on background concentrations of total recoverable versus dissolved metals concentrations, total suspended

solids, and organic carbon will help with the refinement of metals conversion factors. A WER study may be warranted to calculate a site-specific copper objective for the Estuary.

Special studies may be warranted to better characterize sources. Studies may be developed to refine estimates of metals loading from open space and natural sources. Studies may also be developed to assess natural soils as a potential background source of selenium in San Jose Creek Reach 1. Studies should be considered to evaluate the potential contribution of atmospheric deposition to metals loading and sources of atmospheric deposition in the watershed.

Special studies may be warranted to refine some of the assumptions used in the modeling, specifically source representation in dry-weather, the relationship between total recoverable and dissolved metals in storm water, the assumption that metals loading are closely associated with suspended sediments, the accuracy and robustness of the potency factors, the uncertainties in the understanding sediment washoff and transport, and the representation of reservoirs, spreading grounds, and other hydromodifications in the watershed. The assumptions made in model development are detailed in Appendices I and II.

A study should be designed to better understand the mixing of fresh and salt waters in the Estuary and to assess the effect of upstream freshwater discharges on water quality and aquatic life beneficial uses in the Estuary. The purpose of the study would be to refine the assumptions made in establishing the copper waste load allocations for discharges to the Estuary and discharges to those reaches tributary to the Estuary. Special studies may be conducted to assess sources of copper in power plant intake water and possible source reduction strategies.

Special studies should be considered to evaluate the effectiveness of various structural and non-structural BMPs in removing metals and meeting waste load allocations.

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