

Santa Ana Regional Water Quality Control Board

RECEIVED
May 31, 2017
**Commission on
State Mandates**

May 31, 2017

VIA DROP BOX

Heather Halsey, Executive Director
Commission on State Mandates
980 Ninth Street, Suite 300
Sacramento, CA 95814

Dear Ms. Halsey:

RE: SANTA ANA REGIONAL WATER QUALITY CONTROL BOARD'S RESPONSE TO
COMMISSION ON STATE MANDATE'S REQUEST FOR ADDITIONAL BRIEFING -
TEST CLAIM 10-TC-07

On January 29, 2010, the Santa Ana Regional Water Quality Control Board ("Santa Ana Water Board" or "board") adopted Order No. R8-2010-0033, NPDES No. CAS618030, National Pollutant Discharge Elimination System (NPDES) Permit and 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 ("2010 Permit" or "Permit"). The Riverside County Flood Control and Water Conservation District, the County of Riverside, and the Cities of Beaumont, Corona, Hemet, Lake Elsinore, Moreno Valley, Perris and San Jacinto ("Test Claimants") filed a test claim with the Commission on State Mandates ("Commission") on February 8, 2011 ("Test Claim"), alleging that certain provisions of the 2010 Permit constituted unfunded State mandates. The Santa Ana Water Board and Department of Finance filed comments responding to the Test Claim on August 26, 2011. The Commission placed the Test Claim in inactive status on April 27, 2012.

On April 7, 2017, the Commission requested additional briefing from Parties, Interested Parties, and Interested Persons regarding how the California Supreme Court's recent decision in *Department of Finance v. Commission on State Mandates* (County of Los Angeles) (2016) 1 Cal.5th 749, *as modified on denial of rehearing* (Nov. 16, 2016) ("*Department of Finance*") should apply to the Test Claim with regard to the activities that are required to meet the maximum extent practicable ("MEP") standard contained in the federal Clean Water Act. The Commission also requested a discussion of how the decision applies with regard to the specific activities which the Test Claimants allege impose a state mandate in this case.¹ These comments respond to that request.

¹ The April 7, 2017 letter also requested that the Santa Ana Water Board and State Water Resources Control Board ("State Water Board") submit the administrative record in this matter. The administrative record is being submitted under separate cover.

I. Introduction

The Supreme Court's opinion in *Department of Finance* was limited to a narrow issue: whether three conditions concerning trash receptacles and inspections in the 2001 Los Angeles Municipal Separate Storm Sewer System ("MS4") NPDES permit ("LA MS4 Permit") were required controls that would reduce the discharge of pollutants to the MEP, as required by the Clean Water Act.²

By contrast, the 2010 Permit reflects the Santa Ana Water Board's determination that each of the challenged permit provisions was *required* to comply with the federal requirement that MS4 permits impose controls that reduce the discharge of pollutants to the MEP,³ and each provision was based entirely on federal authority. The Supreme Court noted the absence of these findings in the LA MS4 Permit and further opined that such findings would be entitled to deference.⁴ In addition, the Supreme Court's primary focus in *Department of Finance* was the construction of the federal MEP standard. This Test Claim raises the following legal questions or factually distinct circumstances that the Supreme Court did not address:

1. The Santa Ana Water Board found the permit requirements at issue in this Test Claim were federal mandates. "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."⁵ Such findings are "case specific, based among other things on factual circumstances."⁶
2. The Los Angeles Regional Water Quality Control Board ("Los Angeles Water Board") did not dispute that each of the three challenged requirements was a new program or higher level of service⁷ and none was contained in previous permits.⁸ That is not the case in this Test Claim, as the Santa Ana Water Board contends that none of the challenged requirements are a new program or higher level of service.⁹
3. There was no evaluation in *Department of Finance* of whether the contested provisions were required under another independent federal requirement, such as the mandate to effectively prohibit non-storm water discharges into their MS4s or the requirement to include implementing provisions for total maximum daily loads ("TMDLs").
4. None of the three requirements at issue in *Department of Finance* were terms U.S. EPA included in any EPA-issued MS4 permits.¹⁰

² *Dep't. of Finance v. Comm'n on State Mandates*, *supra*, 1 Cal.5th. at p. 757, citing 33 U.S.C. § 1342(p)(3)(B).

³ 2010 Permit, Section II, Finding 10, subd. (a), p. 13.

⁴ *Dep't. of Finance, v. Comm'n on State Mandates*, *supra*, 1 Cal.5th at p. 768.

⁵ *Ibid.*

⁶ *Ibid.*, fn. 15.

⁷ *Id.*, at p. 762.

⁸ *Id.* at pp. 760-61.

⁹ Santa Ana Water Board's August 26, 2011 response to the Test Claim ("August 26, 2011 Response"), pp. 17-18.

¹⁰ *Dep't. of Finance, v. Comm'n on State Mandates*, *supra*, 1 Cal.5th at pp. 761 and 771-72.

5. The Supreme Court did not evaluate whether the local government had the authority to levy fees or assessments pursuant to Government Code section 17556, subdivision (d).¹¹
6. The Supreme Court did not consider the exception to unfunded state mandates for generally applicable requirements. The Permit's discharge requirements are generally applicable and do not impose "unique" obligations on municipal entities.
7. The Supreme Court did not evaluate the permittees' voluntary participation in the NPDES program.

As discussed below, the Supreme Court's November 16, 2016, modifications to its opinion underscore that the determination of whether a particular requirement exceeds the federal standards is a case-specific, factual determination.

II. General Comments

- A. Under *Department of Finance*, the Santa Ana Water Board's federal law findings are entitled to deference.

An essential underpinning of *Department of Finance* is the Supreme Court's determination that the LA MS4 Permit had as its roots both federal and State law. The Los Angeles Water Board made no finding that the permit requirements were necessary to implement the MEP standard.¹² Instead, the Los Angeles Water Board found only that the permit was consistent with or within the federal standard.

In contrast, when issuing the 2010 Permit, the Santa Ana Water Board implemented *only federal law*. The Santa Ana Water Board expressly found:

The authority exercised under this Order is not reserved state authority under the Clean Water Act's savings clause (cf. *Burbank v. State Water Resources Control Bd.* (2005) 35 Cal.4th 613, 627-628 [relying on 33 U.S.C. § 1370, which allows a state to develop requirements which are not 'less stringent' than federal requirements]), but instead, is part of a federal mandate to develop pollutant reduction requirements for municipal separate storm sewer systems. To this extent, *it is entirely federal authority that forms the legal basis to establish the permit provisions.* (See, *City of Rancho Cucamonga v. Regional Water Quality Control Bd.-Santa Ana Region* (2006) 135 Cal.App.4th 1377, 1389; *Building Industry Ass'n of San Diego County v. State Water Resources Control Bd.* (2004) 124 Cal.App.4th 866, 882-883.)¹³

¹¹ *Id.* at p. 761 (acknowledging that the Commission found that the local governments were not entitled to reimbursement because they had authority to levy fees to pay for the required inspections, an issue the Supreme Court did not review.)

¹² *Department of Finance v. Comm'n on State Mandates*, *supra*, 1 Cal.5th at p. 768.

¹³ 2010 Permit, Attachment 6 ("Permit Fact Sheet"), p. 6 (emphasis added).

This finding, plus additional findings contained in the Permit¹⁴ and the Fact Sheet¹⁵ set forth the board's regulatory basis for issuing the Permit. Collectively, these findings make it clear that the board intended to and did rely solely on federal law in issuing the Permit.¹⁶

Further, in *Department of Finance*, the Supreme Court held that, “[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.”¹⁷ Unlike the LA MS4 permit, the Santa Ana Water Board found that “[t]his Order implements federally mandated requirements under [the Clean Water Act].”¹⁸ As the Supreme Court held, “deference to the board’s expertise in reaching that finding is appropriate.”¹⁹

The Santa Ana Water Board understands the Supreme Court to mean that, to be entitled to deference, a regional water quality control board (“regional water board”) must make an express finding that the particular set of permit conditions finally embodied in a given permit is required to meet that federal standard, and must support that finding with evidence. The opinion is consistent with the board’s reading of the Clean Water Act: where a regional water board has devised a set of conditions necessary to ensure local governments’ compliance with federal law (that is, a set of conditions that is federally mandated), the regional water board does not have a choice to impose some other, less rigorous, set of conditions.

When issuing the Permit, the Santa Ana Water Board expressly found that all permit terms, including the challenged provisions, originated in and were required by federal law. Accordingly, the board is entitled to an appropriate level of deference in reaching this conclusion.

B. *Department of Finance* was limited to interpreting the MEP standard and did not address other federal laws or regulations which mandate Permit provisions challenged in the Test Claim.

One of the exceptions to the subvention requirements is if the mandate imposes a requirement that is mandated by a federal law or regulation and results in costs mandated by the federal government, unless the statute or executive order mandates costs that exceed the mandate in that federal law or regulation.²⁰ *Department of Finance* addressed the limited question of

¹⁴ 2010 Permit, Section II, Part B, Findings 1-14. While Finding 1 contains the Santa Ana Water Board’s boilerplate finding indicating that the Permit is also based on State law (for matters such as adoption and review process, reliance on approved water quality control plans, etc.), the specific permit requirements are controlled by the more specific findings and statements related to reliance on federal law (i.e., Finding 10(a).)

¹⁵ Permit Fact Sheet, pp. 4-8.

¹⁶ The finding that the permit terms are necessary to satisfy the federal MEP standard under the factual circumstances presented means the Santa Ana Water Board did not impose more stringent terms under the Porter-Cologne Water Quality Control Act, which it is authorized to do. (See *City of Burbank v. State Water Resources Control Board* (2005) 35 Cal.4th 613, 626-629.)

¹⁷ *Department of Finance v. Comm’n on State Mandates*, *supra*, 1 Cal.5th at p. 768.

¹⁸ 2010 Permit, Section II, Part B, Finding 10, subd. (a), p. 6

¹⁹ *Department of Finance v. Comm’n on State Mandates*, *supra*, 1 Cal.5th at p. 768.

²⁰ Gov. Code, § 17556, subd. (c).

whether the federal MEP standard and certain implementing regulations²¹ mandated both the trash can and inspection requirements contained in the LA MS4 Permit. In reaching its decision, the Supreme Court's analysis necessarily turned on whether, and to what extent, the MEP standard and the specific implementing regulations compelled the Los Angeles Water Board to impose the challenged permit conditions.²² Consequently, the Supreme Court decision has limited application when the federal standard compelling a challenged permit provision is completely separate from the MEP standard and those specific implementing regulations.

For example, the 2010 Permit, like its predecessors, implements the entirely separate Clean Water Act requirement that local agencies effectively prohibit non-storm water discharges into their storm sewers. Specifically, the Clean Water Act provides that permits for discharges from municipal storm sewers "shall include a requirement to effectively prohibit non-storm water discharges into the storm sewers."²³ This is a separate, independent federal requirement the Supreme Court did not analyze in the *Department of Finance* decision.

Additionally, several of the challenged provisions in the 2010 Permit relate to the implementation of TMDL requirements. A TMDL is prepared for waters that remain impaired despite technology-based efforts to limit pollution. The purpose of a TMDL is to determine how much of a specific pollutant a waterbody can tolerate and still meet water quality standards and protect beneficial uses, and then to allocate portions of the pollutant load to various point and nonpoint source dischargers. Point source dischargers, who have been issued NPDES permits, such as the Test Claimants, receive a wasteload allocation. In California, TMDLs are developed by either the regional water boards or U.S. EPA. Federal law specifically compelled the Santa Ana Water Board to include the TMDL-related provisions in the 2010 Permit. MS4 permits must contain effluent limits that are "consistent with the assumptions and requirements of any available wasteload allocation."²⁴ Thus, federal law provides an independent basis, separate from the federal MEP standard, for including the challenged TMDL-related provisions.

The August 26, 2011 Response identified those specific federal requirements, separate from the MEP standard, which compelled the Santa Ana Water Board to include the challenged provisions.

C. U.S. EPA has required similar provisions in permits it has issued.

The Supreme Court observed that U.S. EPA-issued permits do not contain requirements to provide trash receptacles at transit stops (a requirement of the LA MS4 Permit), and found that the absence of such conditions in EPA-issued permits "undermines the argument that the requirement was federally mandated."²⁵ The Court's modifications to its original opinion underscore that determining what constitutes MEP is a case-specific, factual determination and the absence of similar conditions in U.S. EPA-issued permits is not fatal to the argument that a

²¹ The Supreme Court considered Title 40 of the Code of Federal Regulations, parts 122.26(d)(2)(iv)(A)(3), (B)(1), (C)(1), and (D)(3) in reaching its decision. (*Department of Finance v. Comm'n on State Mandates*, *supra*, 1 Cal.5th at p. 749.)

²² *Id.* at p. 767 ("The federal CWA broadly directed the board to issue permits...designed to reduce the pollutant discharges to the maximum extent practicable").

²³ CWA § 402(p)(3)(B)(ii).

²⁴ 40 CFR § 122(d)(1)(vii)(B).

²⁵ *Department of Finance v. Comm'n on State Mandates*, *supra*, 1 Cal.5th at p. 772.

particular requirement is necessary to meet the federal standard.²⁶ U.S. EPA has, however, issued permits requiring substantially similar provisions as the contested provisions of the 2010 Permit. If the Santa Ana Water Board had not issued the Permit, U.S. EPA would have done so. The inclusion of substantially similar provisions by U.S. EPA in other permits demonstrates that the Santa Ana Water Board effectively administered federal requirements concerning permit requirements.

To the extent the challenged provisions are more detailed or provide more specificity than past iterations of the 2010 Permit, that is consistent with U.S. EPA's guidance that successive permits for the same MS4 must become more refined and detailed:

The EPA also expects stormwater permits to follow an iterative process whereby each successive permit becomes more refined, detailed, and expanded as needed, based on experience under the previous permit. See, 55 Fed. Reg. 47990, 48052 ("EPA anticipates that storm water management programs will evolve and mature over time."); 64 Fed. Reg. 67722, 68754; Dec, 8, 1999) ("EPA envisions application of the MEP as an iterative process.") Interim Permitting Approach for Water Quality-Based Effluent Limitations in Stormwater Permits (Sept. 1, 1996) ("The interim permitting approach uses BMPs in first-round stormwater permits, and expanded or better-tailored BMPs in subsequent permits, where necessary, to provide for the attainment of water quality standards.")²⁷

The permit provisions are, as the Santa Ana Water Board concluded, federal mandates.

D. The Supreme Court's decision applies only to the Santa Ana Water Board's arguments that the challenged provisions are mandated by federal law.

Article XIII B, Section 6 of the California Constitution requires subvention of funds to reimburse local governments for state-mandated programs in specified situations. There are several exceptions and limitations to the subvention requirements that provide bases for the Commission to determine that the Test Claim is not subject to subvention. Article XIII B, Section 6 provides, "[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." Implementing statutes clarify that no subvention of funds is required if: (1) the mandate imposes a requirement that is mandated by a federal law or regulation and results in costs mandated by

²⁶ The Court:

The opinion in this matter filed on August 29, 2016, and appearing in the California Official Reports at 1 Cal.5th 749, is modified as follows: On page 768 of the published opinion, a footnote is inserted at the end of the sentence that reads: "The board's legal authority to administer the CWA and its technical experience in water quality control would call on sister agencies as well as courts to defer to that finding." The new footnote, which is numbered as footnote 15, reads: "Of course, this finding would be case specific, based among other things on local factual circumstances." On page 771 of the published opinion, current footnote 15 is renumbered as footnote 16. On page 772 of the published opinion, the word "fatally" is deleted from the sentence that reads: "The fact the EPA itself had issued permits in other cities, but did not include the trash receptacle condition, fatally undermines the argument that the requirement was federally mandate."

²⁷ Letter from Alexis Strauss to Tam Doduc and Dorothy Rice, April 10, 2008, concerning Los Angeles County Copermittees Test Claim Nos. 03-TC-04, 03-TC-19, 03-TC 20 and 03-TC-21 (Attachment 46 to August 26, 2011 Response).

the federal government, unless the statute or executive order mandates costs that exceed the mandate in that federal law or regulation;²⁸ or (2) the local agency proposed the mandate;²⁹ or (3) the local agency has the authority to levy service charges, fees, or assessments sufficient to pay.³⁰

As discussed above, *Department of Finance* reached only the question of whether certain provisions in the LA MS4 Permit constituted federal mandates and, thus, would be exempt from subvention requirements. In addition to arguing that the challenged provisions in the 2010 Permit were federal mandates, in its August 26, 2011 Response, the Santa Ana Water Board explained that these provisions fell under other exemptions and limitations.³¹ The board also explained that because the Test Claimants had not exhausted their administrative remedies, they could not collaterally attack the validity of the 2010 Permit in this forum.³² Therefore, in reviewing the Test Claim, the Commission is required to evaluate each and every challenged provision to determine whether it is mandated by federal law or is nonreimbursable subject to some other exemption or threshold determination.

III. Specific Comments on Challenged Provisions

A. Local Implementation Plan Requirements

As explained in the Santa Ana Water Board's August 26, 2011 Response, the Local Implementation Plan ("LIP") requirements respond directly to U.S. EPA's guidance regarding how to improve stormwater management program plans following stormwater management program audits.³³ Importantly, following an evaluation of the stormwater program's consistency with U.S. EPA's stormwater regulations, Tetra Tech, Inc. ("Tetra Tech") specifically recommended in its Program Evaluation Report the development of individual stormwater implementation plans, such as the LIP requirements.³⁴ The board gave significant weight to applicable U.S. EPA guidance and Tetra Tech's recommendations regarding how to interpret and implement the federal MEP standard.

Additionally, U.S. EPA has adopted MS4 permits which contain comparable stormwater management program requirements.³⁵ Like the LIP, these stormwater management program

²⁸ Govt. Code, § 17556, subd. c.

²⁹ *Id.*, § subd. (a).

³⁰ *Id.*, § subd. (d).

³¹ The Santa Ana Water Board argued that the challenged provisions were not subject to subvention because: (a) the challenged provisions did not impose new programs or higher levels of existing service; (b) the challenged provisions did not impose requirements unique to local agencies and are not mandates particular to government; and (c) Test Claimants have the authority to levy service charges, fees, or other assessments to pay for the programs. (August 26, 2011 Response, pp. 17-19.) *Department of Finance* did not address any of these issues.

³² August 26, 2011 Response, p. 18.

³³ August 26, 2011 Response, pp. 22-24.

³⁴ *Id.* at p. 22-23. Tetra Tech conducted the evaluation under contract with U.S. EPA pursuant to 40 CFR 122.44(i) and, thus, was acting as U.S. EPA's federal contractor for the purpose of evaluating the "current implementation status of the co-permittees' Urban Runoff Program (Program) with respect to EPA's stormwater regulations."

³⁵ See Boise/Garden City MS4 Permit, NPDES Permit No. WAS-026638 (2013) ("Boise/Garden City MS4 Permit"), Section II, pp. 6-36; Joint Base Lewis-McChord MS4 Permit, NPDES Permit No. WAS-026638 (2013) ("Joint Base Lewis-McChord MS4 Permit"), Section II, pp. 5-28; Washington D.C. MS4 Permit, NPDES Permit No. DC0000221
(footnote continued on next page)

plans form the central mechanism for implementing the requirements contained in the U.S. EPA-adopted MS4 permits.³⁶ The inclusion of substantially similar stormwater management program plan requirements by U.S. EPA in other permits demonstrates that the LIP requirements are necessary to meet the federal MEP standard and consistent with U.S. EPA practice.

B. Potential Promulgation and Implementation of Ordinances to Address Bacteria Sources

As explained in the Santa Ana Water Board's August 26, 2011 Response, federal law provides three separate bases for including these requirements: (1) the Permit must prohibit illicit discharges such as dry weather flows containing pathogens, (2) the Permit must be consistent with any TMDLs, and (3) source control of pathogens is necessary to meet the federal MEP standard.³⁷ The federal requirements to prohibit illicit discharges and to include TMDL-implementing provisions are wholly separate from the federal MEP standard, and thus, provide independent bases for inclusion of those challenged provisions. *Department of Finance* did not evaluate these separate and independent federal authorities.

Furthermore, U.S. EPA required similar bacteria controls in its Washington D.C. MS4 Permit:

"The permittee shall implement controls to minimize and prevent discharges, the pollutants from additional pollutant sources, including but not limited to Bacteria (E.Coli)...)³⁸

"Review and revise, where applicable, building, health, road, transportation, and other codes and regulations to remove barriers to, and facilitate the implementation of the following standards: (1) standards resulting from issuance of District stormwater regulations required by Section 2.1, paragraph 1 herein; and (2) performance standards required by this permit."³⁹

The inclusion of substantially similar bacteria control requirements by U.S. EPA in the Washington D.C. MS4 Permit demonstrates that these requirements are necessary to meet the federal MEP standard and consistent with U.S. EPA practice.

Lastly, the Santa Ana Water Board made express findings that these provisions were necessary to implement board-approved TMDLs.⁴⁰ Accordingly, deference to the board's expertise in reaching that finding regarding the challenged provisions is appropriate.

(footnote continued from previous page)

(2011) ("Washington D.C. MS4 Permit"), Section 3, pp. 8-11; and Middle Rio Grande Watershed MS4 Permit, NPDES Permit No. NMR04A000 ("Middle Rio Grande MS4 Permit"), Part I, Section D, pp. 23-51.

³⁶ See Fact Sheet for Washington D.C. MS4 Permit, p. 8 (...EPA is clarifying that any written study, strategy, plan, schedule or other element, existing or new, is part of the District Stormwater Management Program Plan. It is EPA's intent that all elements of the program be described in this central "Plan".)

³⁷ August 26, 2011 Response, pp. 25-27.

³⁸ Washington D.C. MS4 Permit, Section 4.11, p. 32

³⁹ *Id.*, Section 2.1.4, p 7.

⁴⁰ Permit Fact Sheet, p. 15.

C. Illicit Connections/Illegal Discharges (“IDDE”) Requirements

As explained in the Santa Ana Water Board’s August 26, 2011 Response, the IDDE program requirements respond directly to U.S. EPA’s guidance regarding how to improve IDDE programs.⁴¹ The board gave significant weight to applicable U.S. EPA guidance regarding how to interpret and implement the federal MEP standard. Furthermore, the IDDE program requirements are driven, in part, by the Clean Water Act requirement that permits for discharges from municipal storm sewers “shall include a requirement to effectively prohibit non-storm water discharges into the storm sewers.”⁴² This is a separate, independent federal requirement the Supreme Court did not analyze in the *Department of Finance* decision.

Additionally, permits adopted by U.S. EPA universally include IDDE requirements outlining the process to eliminate illicit connections/illegal discharges into MS4s.⁴³ The inclusion of comparable IDDE program requirements by U.S. EPA in several MS4 permits demonstrates that these requirements are necessary to implement the federal MEP standard and consistent with U.S. EPA practice.

D. Creation of Septic System Database

As explained in the Santa Ana Water Board’s August 26, 2011 Response, the septic system database requirements respond directly to U.S. EPA’s guidance regarding how to address pollutants of concern.⁴⁴ The board gave significant weight to applicable U.S. EPA guidance regarding how to interpret and implement the federal MEP standard. Furthermore, the septic system database provisions derive, in part, from the Clean Water Act requirement that permits for discharges from municipal storm sewers “shall include a requirement to effectively prohibit non-storm water discharges into the storm sewers.”⁴⁵ Implementing federal regulations specifically require the development and implementation of controls to limit infiltration of seepage from septic systems to a municipal storm sewer system.⁴⁶ These are separate, independent federal requirements the Supreme Court did not analyze in the *Department of Finance* decision.

E. Permittee Inspection Requirements

The August 26, 2011 Response provides a detailed rationale for the challenged inspection requirements.⁴⁷ Permits adopted by U.S. EPA contain comparable inspection requirements.⁴⁸

⁴¹ August 26, 2011 Response, pp. 27-29.

⁴² CWA § 402(p)(3)(B)(ii).

⁴³ See Joint Base Lewis-McChord MS4 Permit, Section II.B.3, p. 10; Boston Water and Sewer Commission, NPDES Permit No. MAS010001 (1999) (“Boston MS4 Permit”), Part I.B.2.g, p. 6; Middle Rio Grande Watershed MS4 Permit, Section 4.7, p. 25; Washington D.C. MS4 Permit, Section 4.7, p. 25 and Section 5.4, p. 37; Boise/Garden City MS4 Permit, Section II.B.5, p. 26.

⁴⁴ August 26, 2011 Response, p. 30.

⁴⁵ CWA § 402(p)(3)(B)(ii).

⁴⁶ 40 C.F.R. § 122.26(d)(2)(iv)(B)(7).

⁴⁷ August 21, 2011 Response, pp. 31-33.

The inclusion of comparable inspection requirements by U.S. EPA in its MS4 permits demonstrates that these requirements are necessary to implement the federal MEP standard and consistent with U.S. EPA practice.

F. New Development Requirements

As explained in the Santa Ana Water Board's August 26, 2011 Response, the new development requirements respond directly to U.S. EPA's guidance regarding how to improve post-construction performance standards.⁴⁹ The Santa Ana Water Board gave significant weight to applicable U.S. EPA guidance regarding how to interpret and implement the federal MEP standard. Additionally, permits adopted by U.S. EPA contain comparable new development requirements, including provisions for low impact development.⁵⁰ The inclusion of comparable new development requirements by U.S. EPA in these MS4 permits demonstrates that these requirements are necessary to implement the federal MEP standard and consistent with U.S. EPA practice.

G. Training

The August 26, 2011 Response provides a detailed rationale for employee training program requirements.⁵¹ The 2010 Permit requires the Permittees to continue to conduct staff training necessary for successful implementation of the stormwater program.⁵²

H. Program Management Assessment

As explained in the Santa Ana Water Board's August 26, 2011 Response, the program management assessment requirements respond directly to U.S. EPA's guidance regarding how to improve evaluation of the effectiveness of the stormwater program.⁵³ In particular, U.S. EPA specifically endorsed the program management assessment approach the Santa Ana Water Board adopted in the 2010 Permit. Additionally, U.S. EPA has required routine program assessment in permits it has adopted.⁵⁴ The inclusion of substantially annual program assessment requirements by U.S. EPA demonstrates that these requirements are necessary to implement the federal MEP standard and consistent with U.S. EPA practice.

(footnote continued from previous page)

⁴⁸ Washington D.C. MS4 Permit, Section 4.1.2, pp. 10-22, Section 4.3.7, subd. 4, p. 21, Section 4.4, subd. 2, p. 22, section 4.5.3, p. 23, Section 4.6.3, p. 24; Joint Base Lewis-McChord MS4 Permit, section II.B.4.g, pp. 15-16, Section II.B.5.i, pp. 19-20, Section II.B.6.b, pp. 22-23; Boise/Garden City MS4 Permit, Section II.B.1. d, pp. 9-10, Section II.B.3.b, Section II.B.3.b, pp. 20-21.

⁴⁹ August 26, 2011 Response, pp. 33-42.

⁵⁰ Joint Base Lewis-McChord MS4 Permit, section II.B.4.g, pp. 16-20, Section II.B.5.i, pp. 19-20, Section II.B.6.b, pp. 22-23; Boise/Garden City MS4 Permit, Section II.B.2 pp. 14-19, Section II.B.3.b, Section II.B.3.b, pp. 20-21; Middle Rio Grande MS4 Permit, Section D.5.b, pp. 28-35

⁵¹ August 26, 2011 Response, pp. 42-43.

⁵² *Ibid.*

⁵³ August 26, 2011 Response, pp. 43-44.

⁵⁴ Washington D.C. MS4 Permit, section 6.2.1, pp 39-40 and section 7, p. 42.

IV. Conclusion

The Santa Ana Water Board appreciates the Commission's consideration of these comments.

I certify and declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to the best of my personal knowledge.



David Rice
Attorney III
Office of Chief Counsel
State Water Resources Control Board
1001 I Street, Floor 22
Sacramento, CA 95814
Telephone: (916) 341-5182
Email: David.Rice@waterboards.ca.gov

Attachments:

1. Boise/Garden City MS4 Permit, NPDES Permit No. WAS-026638 (2013)
2. Joint Base Lewis-McChord MS4 Permit, NPDES Permit No. WAS-026638 (2013)
3. Washington D.C. MS4 Permit, NPDES Permit No. DC0000221 (2011)
4. Fact Sheet for Washington D.C. MS4 Permit, NPDES Permit No. DC0000221 (2011)
5. Middle Rio Grande Watershed MS4 Permit, NPDES Permit No. NMR04A000
6. Boston Water and Sewer Commission, NPDES Permit No. MAS010001 (1999)

cc: Service List via Commission Drop Box

ATTACHMENT 1

United States Environmental Protection Agency
Region 10
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101

**Authorization to Discharge Under the
National Pollutant Discharge Elimination System**

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §1251 *et seq.*, as amended by the Water Quality Act of 1987, P.L. 100-4, the "Act",

**Ada County Highway District,
Boise State University,
City of Boise,
City of Garden City,
Drainage District #3,
and the Idaho Transportation Department District #3,

(hereinafter "the Permittees")**

are authorized to discharge from all municipal separate storm sewer system (MS4) outfalls existing as of the effective date of this Permit to waters of the United States, including the Boise River and its tributaries, in accordance with the conditions set forth herein.

This Permit will become effective February 1, 2013.

This Permit, and the authorization to discharge, expires at midnight, January 30, 2018.

Permittees must reapply for permit reissuance on or before August 3, 2017, 180 days before the expiration of this Permit, if the Permittees intend to continue operations and discharges from the MS4s beyond the term of this Permit.

Signed this 12th day of December, 2012.


Daniel D. Opalski, Director
Office of Water and Watersheds, Region 10
U.S. Environmental Protection Agency

Table of Contents

I. Applicability	3
I.A. Permit Area.....	3
I.B. Discharges Authorized Under This Permit.....	3
I.C. Permittees' Responsibilities.....	3
I.D. Limitations on Permit Coverage.....	4
II. Storm Water Management Program (SWMP) Requirements.....	6
II.A. General Requirements and Program Coordination.....	6
II.B. Minimum Control Measures.....	8
II.C. Discharges to Water Quality Impaired Receiving Waters.....	33
II.D. Reviewing and Updating the SWMP.....	34
II.E. Transfer of Ownership, Authority or Responsibility for SWMP Implementation.....	36
II.F. SWMP Resource.....	36
II.G. Legal Authority.....	36
III. Schedule for Implementation and Required Submissions	37
IV. Monitoring, Recordkeeping and Reporting Requirements.....	40
IV.A. Monitoring.....	40
IV.B. Recordkeeping.....	45
IV.C. Reporting Requirements.....	45
IV.D. Addresses.....	47
V. Compliance Responsibilities	48
V.A. Duty to Comply.....	48
V.B. Penalties for Violations of Permit Conditions.....	48
V.C. Need to Halt or Reduce Activity not a Defense.....	50
V.D. Duty to Mitigate.....	50
V.E. Proper Operation and Maintenance.....	50
V.F. Toxic Pollutants.....	50
V.G. Planned Changes.....	50
V.H. Anticipated Noncompliance.....	51
V.I. Twenty-Four Hour Notice of Noncompliance Reporting.....	51
V.J. Bypass of Treatment Facilities.....	53
V.K. Upset Conditions.....	54
VI. General Provisions.....	54
VI.A. Permit Actions.....	54
VI.B. Duty to Reapply.....	55
VI.C. Duty to Provide Information.....	55
VI.D. Other Information.....	55
VI.E. Signatory Requirements.....	56
VI.F. Availability of Reports.....	56
VI.G. Inspection and Entry.....	56
VI.H. Property Rights.....	57
VI.I. Transfers.....	57
VI.J. State/Tribal Environmental Laws.....	57
VI.K. Oil and Hazardous Substance Liability.....	57
VI.L. Severability.....	57
VII. Definitions and Acronyms.....	57

I. Applicability

A. Permit Area. This Permit covers all areas within the corporate boundary of the City of Boise and Garden City, Idaho, which are served by the municipal separate storm sewer systems (MS4s) owned or operated by the Ada County Highway District, Boise State University, City of Boise, City of Garden City, Drainage District #3, and/or the Idaho Transportation Department District #3 (the Permittees).

B. Discharges Authorized Under This Permit. Subject to the conditions set forth herein, the Permittees are authorized to discharge storm water to waters of the United States from the MS4s identified in Part I.A.

As provided in Part I.D, this Permit also authorizes the discharge of flows from the MS4s which are categorized as allowable non-storm water discharge, storm water discharge associated with industrial activity, and storm water discharge associated with construction activity.

C. Permittees' Responsibilities

1. **Individual Responsibility.** Each Permittee is individually responsible for Permit compliance related only to portions of the MS4 owned or operated solely by that Permittee, or where this Permit requires a specific Permittee to take an action.
2. **Joint Responsibility.** Each Permittee is jointly responsible for Permit compliance:
 - a) related to portions of the MS4 where operational or storm water management program (SWMP) implementation authority has been transferred to all of the Permittees in accordance with an intergovernmental agreement or agreement between the Permittees;
 - b) related to portions of the MS4 where Permittees jointly own or operate a portion of the MS4;
 - c) related to the submission of reports or other documents required by Parts II and IV of this Permit; and
 - d) Where this Permit requires the Permittees to take an action and a specific Permittee is not named.
3. **Intergovernmental Agreement.** The Permittees must maintain an intergovernmental agreement describing each organization's respective roles and responsibilities related to this Permit. Any previously signed agreement may be updated, as necessary, to comply with this requirement. An updated intergovernmental agreement must be completed no later than July 1, 2013. A copy of the updated intergovernmental agreement must be submitted to the Environmental Protection Agency (EPA) with the 1st Year Annual Report.

D. Limitations on Permit Coverage

1. **Non-Storm Water Discharges.** Permittees are not authorized to discharge non-storm water from the MS4, except where such discharges satisfy one of the following three conditions:
 - a) The non-storm water discharges are in compliance with a separate NPDES permit;
 - b) The non-storm water discharges result from a spill and:
 - (i) are the result of an unusual and severe weather event where reasonable and prudent measures have been taken to prevent and minimize the impact of such discharge; or
 - (ii) consist of emergency discharges required to prevent imminent threat to human health or severe property damage, provided that reasonable and prudent measures have been taken to prevent and minimize the impact of such discharges;

or

 - c) The non-storm water discharges satisfy each of the following two conditions:
 - (i) The discharges consist of uncontaminated water line flushing; potable water sources; landscape irrigation (provided all pesticides, herbicides and fertilizer have been applied in accordance with manufacturer's instructions); lawn watering; irrigation water; flows from riparian habitats and wetlands; diverted stream flows; springs; rising ground waters; uncontaminated ground water infiltration (as defined at 40 CFR § 35.2005(20)) to separate storm sewers; uncontaminated pumped ground water or spring water; foundation and footing drains (where flows are not contaminated with process materials such as solvents); uncontaminated air conditioning or compressor condensate; water from crawlspace pumps; individual residential car washing; dechlorinated swimming pool discharges; routine external building wash down which does not use detergents; street and pavement wash waters, where no detergents are used and no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed); fire hydrant flushing; or flows from emergency firefighting activities; and
 - (ii) The discharges are not sources of pollution to waters of the United States. A discharge is considered a source of pollution to waters of the United States if it:
 - 1) Contains hazardous materials in concentrations found to be of public health significance or to impair beneficial uses in receiving waters. (Hazardous materials are those

that are harmful to humans and animals from exposure, but not necessarily ingestion);

- 2) Contains toxic substances in concentrations that impair designated beneficial uses in receiving waters. (Toxic substances are those that can cause disease, malignancy, genetic mutation, death, or similar consequences);
 - 3) Contains deleterious materials in concentrations that impair designated beneficial uses in receiving waters. (Deleterious materials are generally substances that taint edible species of fish, cause taste in drinking waters, or cause harm to fish or other aquatic life);
 - 4) Contains radioactive materials or radioactivity at levels exceeding the values listed in 10 CFR Part 20 in receiving waters;
 - 5) Contains floating, suspended, or submerged matter of any kind in concentrations causing nuisance or objectionable conditions or in concentrations that may impair designated beneficial uses in receiving waters;
 - 6) Contains excessive nutrients that can cause visible slime growths or other nuisance aquatic growths that impair designated beneficial uses in receiving waters;
 - 7) Contains oxygen-demanding materials in concentrations that would result in anaerobic water conditions in receiving waters; or
 - 8) Contains sediment above quantities specified in IDAPA 58.01.02.250.02.e or in the absence of specific sediment criteria, above quantities that impair beneficial uses in receiving waters; or
 - 9) Contains material in concentrations that exceed applicable natural background conditions in receiving waters (IDAPA 58.01.02.200.09). Temperature levels may be increased above natural background conditions when allowed under IDAPA 58.01.02.401.
2. **Discharges Threatening Water Quality.** Permittees are not authorized to discharge storm water that will cause, or have the reasonable potential to cause or contribute to, an excursion above the Idaho water quality standards.
 3. **Snow Disposal to Receiving Waters.** Permittees are not authorized to push or dispose of snow plowed within the Permit area directly into waters of the United States, or directly into the MS4(s). Discharges from any Permittee's snow disposal and snow management practices are authorized under this Permit only when such sites and practices are designed, conducted, operated, and maintained to prevent and reduce pollutants in the discharges to the maximum

extent practicable so as to avoid excursions above the Idaho water quality standards.

4. **Storm Water Discharge Associated with Industrial and Construction Activity.** Permittees are authorized to discharge storm water associated with industrial activity (as defined in 40 CFR 122.26(b)(14)), and storm water associated with construction activity (as defined in 40 CFR 122.26(b)(14)(x) and (b)(15)), from their MS4s, only when such discharges are otherwise authorized under an appropriate NPDES permit.

II. Storm Water Management Program (SWMP) Requirements

A. General Requirements

1. **Reduce pollutants to the maximum extent practicable.** The Permittees must implement and enforce a SWMP designed to reduce the discharge of pollutants from their MS4 to the maximum extent practicable (MEP), and to protect water quality in receiving waters. The SWMP as defined in this Permit must include best management practices (BMPs), controls, system design, engineering methods, and other provisions appropriate to control and minimize the discharge of pollutants from the MS4s.
 - a) **SWMP Elements.** The required SWMP control measures are outlined in Part II.SWMP assessment/monitoring requirements are described in Part IV. Each Permittee must use practices that are selected, implemented, maintained, and updated to ensure that storm water discharges do not cause or contribute to an exceedance of an applicable Idaho water quality standard.
 - b) **SWMP Documentation.** Each Permittee must prepare written documentation of the SWMP as implemented within their jurisdiction. The SWMP documentation must be organized according to the program components in Parts II and IV of this Permit, and must provide a current narrative physical description of the Permittee's MS4, illustrative maps or graphics, and all related ordinances, policies and activities as implemented within their jurisdiction. Each Permittee's SWMP documentation must be submitted to EPA with the 1st Year Annual Report.
 - (i) Each Permittee must provide an opportunity for public review and comment on their SWMP documentation, consistent with applicable state or local requirements and Part II.B.6 of this Permit.
 - (ii) Each Permittee's SWMP documentation must be updated at least annually and submitted as part of each subsequent Annual Report. (The document format used for Annual Report(s) submitted to EPA by the Permittees' prior to the effective date of this Permit may be modified to meet this requirement.)
 - c) **SWMP Information.** The SWMP must include an ongoing program for gathering, tracking, maintaining, and using information to set priorities, evaluate SWMP implementation and Permit compliance.

- d) **SWMP Statistics.** Permittees must track the number of inspections, official enforcement actions and types of public education activities and outcomes as stipulated by the respective program component. This information must be included in the Annual Report.
2. **Shared Implementation with outside entities.** Implementation of one or more of the SWMP minimum control measures may be shared with or delegated to another entity other than the Permittee(s). A Permittee may rely on another entity only if:
 - a) The other entity, in fact, implements the minimum control measure;
 - b) The action, or component thereof, is at least as stringent as the corresponding Permit requirement; and
 - c) The other entity agrees to implement the minimum control measure on the Permittee's behalf. A binding written acceptance of this obligation is required. Each Permittee must maintain and record this obligation as part of the SWMP documentation. If the other entity agrees to report on the minimum control measure, the Permittees must supply the other entity with the reporting requirements in Part IV.C of this Permit. The Permittees remain responsible for compliance with the Permit obligation if the other entity fails to implement the required minimum control measure.
 3. **Modification of the SWMP.** Minor modifications to the SWMP may be made in accordance with Part II.E of this Permit.
 4. **Subwatershed Planning.** No later than September 30, 2016, the Permittees must jointly complete at least two individual sub-watershed plans for areas served by the MS4s within the Permit area. For the purposes of this Permit, the terms "subwatershed" and "storm sewershed" are defined as in Part VII. For each plan document, the subwatershed planning area must drain to at least one of the water bodies listed in Table II.C.

Selected subwatersheds must be identified in the 1st Year Annual Report. Two completed subwatershed plan documents must be submitted to EPA as part of the 4th Year Annual Report.

- a) The Permittees must actively engage stakeholders in the development of each plan, and must provide opportunities for public input, consistent with Part II.B.6.
- b) The Permittees may modify and update any existing watershed planning document(s) to address the requirements of this Part.
- c) Each subwatershed plan must describe the extent and nature of the existing storm sewershed, and identify priority aquatic resources and beneficial uses to be protected or restored within the subwatershed planning area. Each subwatershed plan must contain a prioritized list of potential locations or opportunities for protecting or restoring such resources or beneficial uses through storm water infiltration, evapotranspiration or rainfall

harvesting/reuse, or other site-based low impact development (LID) practices. See Parts II.B.2.a, and II.B.2.c.

- d) Each subwatershed plan must include consideration and discussion of how the Permittees will provide incentives, or enforce requirements, through their respective Stormwater Management Programs to address the following principles:
- (i) Minimize the amount of impervious surfaces (roads, parking lots, roofs) within each watershed, by minimizing the creation, extension and widening of roads and associated development.
 - (ii) Preserve, protect, create and restore ecologically sensitive areas that provide water quality benefits and serve critical watershed functions. These areas may include, but are not limited to; riparian corridors, headwaters, floodplains and wetlands.
 - (iii) Prevent or reduce thermal impacts to water bodies, including requiring vegetated buffers along waterways, and disconnecting discharges to surface waters from impervious surfaces such as parking lots.
 - (iv) Seek to avoid or prevent hydromodification of streams and other water bodies caused by development, including roads, highways, and bridges.
 - (v) Preserve and protect trees, and other vegetation with important evapotranspirative qualities.
 - (vi) Preserve and protect native soils, prevent topsoil stripping, and prevent compaction of soils.

B. Minimum Control Measures. The following minimum control measures must be accomplished through each Permittee's Storm Water Management Program:

1. **Construction Site Runoff Control Program.** The Permittees must implement a construction site runoff control program to reduce discharges of pollutants from public and private construction activity within its jurisdiction. The Permittees' construction site management program must include the requirements described below:
 - a) **Ordinance and/or other regulatory mechanism.** To the extent allowable under local or state law, Permittees must adopt, implement, and enforce requirements for erosion controls, sediment controls, and materials management techniques to be employed and maintained at each construction project from initial clearing through final stabilization. Each Permittee must require construction site operators to maintain adequate and effective controls to reduce pollutants in storm water discharges from construction sites. The Permittees must use enforcement actions (such as, written warnings, stop work orders or fines) to ensure compliance.

No later than September 30, 2015, each Permittee must update their ordinances or other regulatory mechanisms, as necessary, to be consistent with this Permit and with the current version of the *NPDES General Permit for Storm Water Discharges from Construction Activities*, Permit #IDR12-0000 (NPDES Construction General Permit or CGP).

- b) **Manuals Describing Construction Storm Water Management Controls and Specifications.** The Permittees must require construction site operators within their jurisdiction to use construction site management controls and specifications as defined within manuals adopted by the Permittees.

No later than September 30, 2015, the Permittees must update their respective manuals, as necessary, to include requirements for the proper installation and maintenance of erosion controls, sediment controls, and material containment/pollution prevention controls during all phases of construction activity. The manual(s) must include all acceptable control practices, selection and sizing criteria, illustrations, and design examples, as well as recommended operation and maintenance of each practice. At a minimum, the manual(s) must include requirements for erosion control, sediment control, and pollution prevention which complement and do not conflict with the current version of the CGP. If the manuals previously adopted by the individual Permittee do not meet these requirements, the Permittee may create supplemental provisions to include as part of the adopted manual in order to comply with this Permit.

- c) **Plan Review and Approval.** The Permittees must review and approve preconstruction site plans from construction site operators within their jurisdictions. Permittees must ensure that the construction site operator is prohibited from commencing construction activity prior to receipt of written approval.
- (i) The Permittees must not approve any erosion and sediment control (ESC) plan or Storm Water Pollution Prevention Plan (SWPPP) unless it contains appropriate site-specific construction site control measures meeting the Permittee's requirements as outlined in Part II.B.1.b.
 - (ii) Prior to the start of a construction project disturbing one or more acres, or disturbing less than one acre but is part of a larger common plan of development, the Permittees must advise the construction site operator(s) to seek or obtain necessary coverage under the NPDES Construction General Permit.
 - (iii) Permittees must use qualified individuals, knowledgeable in the technical review of ESC plans/SWPPPs, to conduct such reviews.
 - (iv) Permittees must document the review of each ESC plan and/or SWPPP using a checklist or similar process.
- d) **Construction Site Inspections.** The Permittees must inspect construction sites occurring within their jurisdictions to ensure compliance with their

applicable requirements. The Permittees may establish an inspection prioritization system to identify the frequency and type of inspection based upon such factors as project type, total area of disturbance, location, and potential threat to water quality. If a prioritization system is used, the Permittee must include a description of the current inspection prioritization in the SWMP document required in Part II.A, and summarize the nature and number of inspections conducted during the previous reporting period in each Annual Report.

(i) Inspections of construction sites must include, but not be limited to:

- As applicable, a check for coverage under the Construction General Permit by reviewing any authorization letter or Notice of Intent (NOI) during initial inspections;
- Review the applicable ESC plan/SWPPP to determine if control measures have been installed, implemented, and maintained as approved;
- Assessment of compliance with the Permittees' ordinances/requirements related to storm water runoff, including the implementation and maintenance of required control measures;
- Assessment of the appropriateness of planned control measures and their effectiveness;
- Visual observation of non-storm water discharges, potential illicit connections, and potential discharge of pollutants in storm water runoff;
- Education or instruction related to on storm water pollution prevention practices, as needed or appropriate; and
- A written or electronic inspection report.

(ii) The Permittees must track the number of construction site inspections conducted throughout the reporting period, and verify that the sites are inspected at the minimum frequencies required by the inspection prioritization system. Construction site inspections must be tracked and reported with each Annual Report.

(iii) Based on site inspection findings, each Permittee must take all necessary follow-up actions (i.e., re-inspection, enforcement) to ensure compliance. Follow-up and enforcement actions must be tracked and reported with each Annual Report.

- e) **Enforcement Response Policy for Construction Site Management Program.** No later than September 30, 2016, each Permittee must develop and implement a written escalating enforcement response policy (ERP) appropriate to their organization. Upon implementation of the policy in its jurisdiction, each Permittee must submit its completed ERP to EPA with the 4th Year Annual Report. The ERP for City of Boise, City of Garden City, and Ada County Highway District must address enforcement of construction site runoff controls for all currently regulated construction projects within their jurisdictions. The ERP for Idaho Transportation Department District 3, Drainage District 3, and Boise State University must address contractual enforcement of construction site runoff controls at construction sites within their jurisdictions. Each ERP must describe the Permittee's potential responses to violations with an appropriate educational or enforcement response. The ERP must address repeat violations through progressively stricter responses as needed to achieve compliance. Each ERP must describe how the Permittee will use the following types of enforcement response, as available, based on the type of violation:
- (i) **Verbal Warnings:** Verbal warnings are primarily consultative in nature. At a minimum, verbal warnings must specify the nature of violation and required corrective action.
 - (ii) **Written Notices:** Written notices must stipulate the nature of the violation and the required corrective action, with deadlines for taking such action.
 - (iii) **Escalated Enforcement Measures:** The Permittees must have the legal ability to employ any combination of the enforcement actions below (or their functional equivalent):
 - The ERP must indicate when the Permittees will initiate a Stop Work Order. Stop work orders must require that construction activities be halted, except for those activities directed at cleaning up, abating discharge, and installing appropriate control measures.
 - The Permittees must also use other escalating measures provided under local or state legal authorities, such as assessing monetary penalties. The Permittees may perform work necessary to improve erosion control measures and collect the funds from the responsible party in an appropriate manner, such as collecting against the project's bond, or directly billing the responsible party to pay for work and materials.
- f) **Construction General Permit Violation Referrals.** For those construction projects which are subject to the NPDES Construction General Permit and do not respond to Permittee educational efforts, the Permittee may provide to EPA information regarding construction project operators which cannot demonstrate that they have appropriate NPDES Permit

coverage and/or site operators deemed by the Permittee as not complying with the NPDES Construction General Permit. Permittees may submit such information to the EPA NPDES Compliance Hotline in Seattle, Washington, by telephone, at (206) 553-1846, and include, at a minimum, the following information:

- Construction project location and description;
 - Name and contact information of project owner/ operator;
 - Estimated construction project disturbance size; and
 - An account of information provided by the Permittee to the project owner/ operator regarding NPDES filing requirements.
- (i) **Enforcement Tracking.** Permittees must track instances of non-compliance either in hard-copy files or electronically. The enforcement case documentation must include, at a minimum, the following:
- Name of owner/operator;
 - Location of construction project;
 - Description of violation;
 - Required schedule for returning to compliance;
 - Description of enforcement response used, including escalated responses if repeat violations occur;
 - Accompanying documentation of enforcement response (e.g., notices of noncompliance, notices of violations, etc.); and
 - Any referrals to different departments or agencies.
- g) **Construction Program Education and Training.** Throughout the Permit term, the Permittees must ensure that all staff whose primary job duties are related to implementing the construction program (including permitting, plan review, construction site inspections, and enforcement) are trained to conduct such activities. The education program must also provide regular training opportunities for construction site operators. This training must include, at a minimum:
- (i) *Erosion and Sediment Control/Storm Water Inspectors:*
- Initial training regarding proper control measure selection, installation and maintenance as well as administrative requirements such as inspection reporting/tracking and the implementation of the enforcement response policy; and

- Annual refresher training for existing inspection staff to update them on preferred BMPs, regulation changes, Permit updates, and policy or standards updates.
- (ii) *Other Construction Inspectors:* Initial training on general storm water issues, basic control measure implementation information, and procedures for notifying the appropriate personnel of noncompliance.
- (iii) *Plan Reviewers:*
- Initial training regarding control measure selection, design standards, review procedures;
 - Annual training regarding new control measures, innovative approaches, Permit updates, regulation changes and policy or standard updates.
- (iv) *Third-Party Inspectors and Plan Reviewers.* If the Permittee utilizes outside parties to either conduct inspections and or review plans, these outside staff must be trained per the requirements listed in Part II.B.1.f.i.-iii above.
- (v) *Construction Operator Education.* At a minimum, the Permittees must educate construction site operators within the Permit area as follows:
- At least once per year, the Permittees must either provide information to all construction companies on existing training opportunities or develop new training for construction operators regarding appropriate selection, installation, and use of required construction site control measures at sites within the Permit area.
 - The Permittees must require construction site operators to have at least one person on-site during construction that is appropriately trained in erosion and sediment control.
 - The Permittees must require construction operators to attend training at least once every three years.
 - The Permittees must provide appropriate information and outreach materials to all construction operators who may disturb land within their jurisdiction.

2. Storm Water Management for Areas of New Development and Redevelopment.

At a minimum, the Permittees must implement and enforce a program to control storm water runoff from new development and redevelopment projects that result in land disturbance of 5,000 square feet or more, excluding individual one or two family dwelling development or redevelopment. This program must apply to private and public sector development, including roads and streets. The program implemented by the Permittees must ensure that permanent controls or practices are utilized at each new development and redevelopment site to protect water quality. The program must include, at a minimum, the elements described below:

- a) **Ordinance or other regulatory mechanisms.** No later than the expiration date of this Permit, each Permittee must update its applicable ordinance or regulatory mechanism which requires the installation and long-term maintenance of permanent storm water management controls at new development and redevelopment projects. Each Permittee must update their ordinance/regulatory mechanism to the extent allowed by local and state law, consistent with the individual Permittee's respective legal authority. Permittees must submit their revised ordinance/regulatory mechanism as part of the 5th Year Annual Report.
 - (i) The ordinance/regulatory mechanism must include site design standards for all new and redevelopment that require, in combination or alone, storm water management measures that keep and manage onsite the runoff generated from the first 0.6 inches of rainfall from a 24-hour event preceded by 48 hours of no measureable precipitation. Runoff volume reduction can be achieved by canopy interception, soil amendments, bioretention, evapotranspiration, rainfall harvesting, engineered infiltration, extended filtration, and/or any combination of such practices that will capture the first 0.6 inches of rainfall. An Underground Injection Control permit may be required when certain conditions are met. The ordinance or regulatory mechanism must require that the first 0.6 inches of rainfall be 100% managed with no discharge to surface waters, except when the Permittee chooses to implement the conditions of II.B.2.a.ii below.
 - (ii) For projects that cannot meet 100% infiltration/evapotranspiration/reuse requirements onsite, the Permittees' program may allow offsite mitigation within the same subwatershed, subject to siting restrictions established by the Permittee. The Permittee allowing this option must develop and apply criteria for determining the circumstances under which offsite mitigation may be allowed. A determination that the onsite retention requirement cannot be met must be based on multiple factors, including but not limited to technical feasibility or logistic practicality (e.g. lack of available space, high groundwater, groundwater contamination, poorly infiltrating soils, shallow bedrock, and/or a land use that is inconsistent with

capture and reuse or infiltration of storm water). Determinations may not be based solely on the difficulty and/or cost of implementing such measures. The Permittee(s) allowing this option must create an inventory of appropriate mitigation projects and develop appropriate institutional standards and management systems to value, estimate and track these situations. Using completed subwatershed plans or other mechanisms, the Permittee(s) must identify priority areas within subwatersheds in which off-site mitigation may be conducted.

- (iii) The ordinance or regulatory mechanism must include the following water quality requirements:
- Projects with potential for excessive pollutant loading(s) must provide water quality treatment for associated pollutants before infiltration.
 - Projects with potential for excessive pollutant loading(s) that cannot implement adequate preventive or water quality treatment measures to ensure compliance with Idaho surface water standards must properly convey storm water to a NPDES permitted wastewater treatment facility or via a licensed waste hauler to a permitted treatment and disposal facility.
- (iv) The ordinance or other regulatory mechanism must include procedures for the Permittee's review and approval of permanent storm water management plans for new development and redevelopment projects consistent with Part II.B.1.d.
- (v) The ordinance or other regulatory mechanism must include sanctions (including fines) to ensure compliance, as allowed under state or local law.
- b) **Storm Water Design Criteria Manual.** No later than September 30, 2015, each Permittee must update as necessary their existing Storm Water Design Criteria Manual specifying acceptable permanent storm water management and control practices. The manual must contain design criteria for each practice. In lieu of updating a manual, a Permittee may adopt a manual created by another entity which complies with this section. The manual must include:
- (i) Specifications and incentives for the use of site-based practices appropriate to local soils and hydrologic conditions;
 - (ii) A list of acceptable practices, including sizing criteria, performance criteria, design examples, and guidance on selection and location of practices; and
 - (iii) Specifications for proper long term operation and maintenance, including appropriate inspection interval and self-inspection checklists for responsible parties.

- c) **Green Infrastructure/Low Impact Development (LID) Incentive Strategy and Pilot Projects.** No later than September 30, 2015, the Permittees must develop a strategy to provide incentives for the increased use of LID techniques in private and public sector development projects within each Permittee's jurisdiction. Permittees must comply with applicable State and local public notice requirements when developing this Strategy. Pursuant to Part IV.A.2.a, the Strategy must reference methods of evaluating at least three (3) Green Infrastructure/LID pilot projects as described below. Permittees must implement the Green Infrastructure/LID Incentive Strategy, and complete an effectiveness evaluation of at least three pilot projects, prior to the expiration date of this Permit.
- (i) As part of the 3rd Year Annual Report, the Permittees must submit the written Green Infrastructure /LID Incentive Strategy; the Strategy must include a description of at least three selected pilot projects, and a narrative report on the progress to evaluate the effectiveness of each selected LID technique or practice included in the pilot project. Each pilot project must include an evaluation of the effectiveness of LID technique(s) or practice(s) used for on-site control of water quality and/or quantity. Each Pilot Project must involve at least one or more of the following characteristics:
- The project manages runoff from at least 3,000 square feet of impervious surface;
 - The project involves transportation related location(s) (including parking lots);
 - The drainage area of the project is greater than five acres in size; and/or
 - The project involves mitigation of existing storm water discharges to one or more of the water bodies listed in Table II.C.
- (ii) Consistent with Part IV.A.10, the Permittees must evaluate the performance of LID technique(s) or practice(s) in each pilot project, and include a progress report on overall strategy implementation in the 4th Annual Report. Final pilot project evaluations must be submitted in the 5th Year Annual Report. The Permittees must monitor, calculate or model changes in runoff quantities for each of the pilot project sites in the following manner:
- For retrofit projects, changes in runoff quantities shall be calculated as a percentage of 100% pervious surface before and after implementation of the LID technique(s) or practice(s).
 - For new construction projects, changes in runoff quantities shall be calculated for development scenarios both with LID technique(s) or practice(s) and without LID technique(s) or practice(s).

- The Permittees must measure runoff flow rate and subsequently prepare runoff hydrographs to characterize peak runoff rates and volumes, discharge rates and volumes, and duration of discharge volumes. The evaluation must include quantification and description of each type of land cover contributing to surface runoff for each pilot project, including area, slope, vegetation type and condition for pervious surfaces, and the nature of impervious surfaces.
 - The Permittees must use these runoff values to evaluate the overall effectiveness of various LID technique(s) or practice(s) and to develop recommendations for future adoption of LID technique(s) or practice(s) that address appropriate use, design, type, size, soil type and operation and maintenance practices.
- (iii) **Riparian Zone Management and Outfall Disconnection.** No later than September 30, 2015, the Permittees must identify and prioritize riparian areas appropriate for Permittee acquisition and protection. Prior to the expiration date of this Permit, the Permittees must undertake and complete at least one project designed to reduce the flow of untreated urban storm water discharging through the MS4 system through the use of vegetated swales, storm water treatment wetlands and/or other appropriate techniques. The Permittees must submit the list of prioritized riparian protection areas, and a status report on the planning and implementation of the outfall disconnection project, as part of the 3rd Year Annual Report. Documentation of the completed outfall disconnection project must be included in the 5th Year Annual Report.
- (iv) **Repair of Public Streets, Roads and Parking Lots.** When public streets, roads or parking lots are repaired (as defined in Part VII), the Permittees performing these repairs must evaluate the feasibility of incorporating runoff reduction techniques into the repair by using canopy interception, bioretention, soil amendments, evaporation, rainfall harvesting, engineered infiltration, rain gardens, infiltration trenches, extended filtration and/or evapotranspiration and/or any combination of the aforementioned practices. Where such practices are found to be technically feasible, the Permittee performing the repair must use such practices in the design and repair. These requirements apply only to projects whose design process is started after the effective date of this Permit. As part of the 5th Year Annual Report, the Permittees must list the locations of street, road and parking lot repair work completed since the effective date of the Permit that have incorporated such runoff reduction practices, and the receiving water body(s) benefitting from such practices. This documentation must include a general description of the project design, estimated total cost, and estimates of total flow

volume and pollutant reduction achieved compared to traditional design practices.

- d) **Plan Review and Approval.** The Permittees must review and approve pre-construction plans for permanent storm water management. The Permittees must review plans for consistency with the ordinance/regulatory mechanism and Storm Water Design Criteria Manual required by this Part. The Permittees must ensure that the project operator is prohibited from commencing construction activity prior to receipt of written approval from the Permittee.
- (i) The Permittees must not approve or recommend for approval any plans for permanent storm water controls that do not contain appropriate permanent storm water management practices that meet the minimum requirements specified in this Part.
 - (ii) Permittees must use qualified individuals, knowledgeable in the technical review of plans for permanent storm water controls to conduct such reviews.
 - (iii) Permittees must document the review of each plan using a checklist or similar process.
- e) **Operation and Maintenance (O&M) of Permanent Storm Water Management Controls.**
- (i) **Inventory and Tracking.** The Permittees must maintain a database tracking all new public and private sector permanent storm water controls. No later than January 30, 2018, all of the available data on existing permanent storm water controls known to the Permittees must be included in the inventory database. For the purposes of this Part, new permanent controls are those installed after February 1, 2013; existing permanent controls are those installed prior to February 1, 2013. The tracking must begin in the plan review stage with a database that incorporates geographic information system (GIS) information. The tracking system must also include, at a minimum: type and number of practices; O&M requirements, activity and schedule; responsible party; and self-inspection schedule.
 - (ii) **O&M Agreements.** Where parties other than the Permittees are responsible for operation and maintenance of permanent storm water controls, the Permittees must require a legally enforceable and transferable O&M agreement with the responsible party, or other mechanism, that assigns permanent responsibility for maintenance of structural or treatment control storm water management practices.
- f) **Inspection and Enforcement of Permanent Storm Water Management Controls.** The Permittees must ensure proper long term operation and

maintenance of all permanent storm water management practices within the Permittees' respective jurisdiction. The Permittees must implement an inspection program, and define and prioritize new development and redevelopment sites for inspections of permanent storm water management controls. Factors used to prioritize sites must include, but not be limited to: size of new development or redevelopment area; sensitivity and/or impaired status of receiving water(s); and, history of non-compliance at the site during the construction phase.

- (i) No later than September 30, 2017, all high priority locations must be inventoried and associated inspections must be scheduled to occur at least once annually. The inspections must determine whether storm water management or treatment practices have been properly installed (i.e., an "as built" verification). The inspections must evaluate the operation and maintenance of such practices, identify deficiencies and potential solutions, and assess potential impacts to receiving waters.
 - (ii) No later than September 30, 2017, the Permittees must develop checklists to be used by inspectors during these inspections, and must maintain records of all inspections conducted on new development and redevelopment sites.
 - (iii) No later than September 30, 2017, the Permittees must develop and implement an enforcement strategy similar to that required in Section II.B.1.e to maintain the integrity of permanent storm water management and treatment practices.
- g) **Education and Training on Permanent Storm Water Controls.** No later than September 30, 2015, the Permittees must begin a training program for appropriate audiences regarding the selection, design, installation, operation and maintenance of permanent storm water controls. The training program and materials must be updated as necessary to include information on updated or revised storm water treatment standards, design manual specifications, Low Impact Development techniques or practices, and proper operation and maintenance requirements.
 - (i) No later than September 30, 2016, and annually thereafter, all persons responsible for reviewing plans for new development and redevelopment and/or inspecting storm water management practices and treatment controls must receive training sufficient to determine the adequacy of storm water management and treatment controls at proposed new development and redevelopment sites.
 - (ii) No later than September 30, 2016, and at least annually thereafter, Permittees must provide training to local audiences on the storm water management requirements described in this Part.

3. Industrial and Commercial Storm Water Discharge Management. The Permittees must implement a program to reduce to the MEP the discharge of pollutants from industrial and commercial operations within their jurisdiction. Throughout the Permit term, the Permittees must conduct educational and/or enforcement efforts to reduce the discharge of pollutants from those industrial and commercial locations which are considered to be significant contributors of phosphorus, bacteria, temperature, and/or sediment to receiving waters. At a minimum, the program must include the following elements:

- a) **Inventory of Industrial and Commercial Facilities/Activities.** No later than September 30, 2016, the Permittees must update the inventory and map of facilities and activities discharging directly to their MS4s.
 - (i) At a minimum, the inventory must include information listing the watershed/receiving water body, facility name, address, nature of business or activity, and North American or Standard Industrial Classification code(s) that best reflect the facility's product or service;
 - (ii) The inventory must include the following types of facilities: municipal landfills (open and closed); Permittee-owned maintenance yards and facilities; hazardous waste recovery, treatment, storage and disposal facilities; facilities subject to Section 313 of the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. 11023; all industrial sectors listed in 40 CFR §122.26(b)(14); vehicle or equipment wash systems; commercial animal facilities, including kennels, race tracks, show facilities, stables, or other similar commercial locations where improper management of domestic animal waste may contribute pollutants to receiving waters or to the MS4; urban agricultural activities; and other industrial or commercial facility that the Permittees determine is contributing a substantial pollutant loading to the MS4 and associated receiving waters.
 - (iii) The Permittees must collectively identify at least two specific industrial/commercial activities or sectors operating within the Permit area for which storm water discharges are not being adequately addressed through existing programs. No later than September 30, 2016, the Permittees must develop best management practices for each activity, and educate the selected industrial/commercial audiences regarding these performance expectations. Example activities for consideration include, but are not limited to: landscaping businesses; wholesale or retail agricultural and construction supply businesses; urban agricultural activities; power washers; commercial animal facilities; commercial car/truck washing operations; and automobile repair shops.
- b) **Inspection of Industrial and Commercial Facilities/Activities.** The Permittees must work cooperatively throughout the Permit term to prioritize

and inspect selected industrial and commercial facilities/activities which discharge to receiving waters or to the MS4. No later than September 30, 2016, any existing agreements between the Permittees to accomplish such inspections must be updated as necessary to comply with this permit. At a minimum, the industrial and commercial facility inspection program must include:

- (i) Priorities and procedures for inspections, including inspector training, and compliance assistance or education materials to inform targeted facility/activity operators of applicable requirements;
 - (ii) Provisions to record observations of a facility or activity;
 - (iii) Procedures to report findings to the inspected facility or activity, and to follow-up with the facility/activity operator as necessary;
 - (iv) A monitoring (or self monitoring) program for facilities that assesses the type and quantity of pollutants discharging to the MS4s;
 - (v) Procedures to exercise legal authorities to ensure compliance with applicable local storm water ordinances.
- c) **Maintain Industrial and Commercial Facility/Activity Inventory.** The industrial and commercial facility/activity inventory must be updated at least annually. The updated inventory and a summary of the compliance assistance and inspection activities conducted, as well as any follow-up actions, must be submitted to EPA with each Annual Report.

4. Storm Water Infrastructure and Street Management. The Permittees must maintain their MS4 and related facilities to reduce the discharge of pollutants from the MS4 to the MEP. All Permittee-owned and operated facilities must be properly operated and maintained. This maintenance requirement includes, but is not limited to, structural storm water treatment controls, storm sewer systems, streets, roads, parking lots, snow disposal sites, waste facilities, and street maintenance and material storage facilities. The program must include the following:

- a) **Storm Sewer System Inventory and Mapping.** No later than January 30, 2018, the Permittees must update current records to develop a comprehensive inventory and map of the MS4s and associated outfall locations. The inventory must identify all areas over which each Permittee has responsibility. The inventory must include:
 - (i) the location of all inlets, catch basins and outfalls owned/operated by the Permittee;
 - (ii) the location of all MS4 collection system pipes (laterals, mains, etc.) owned/operated by the Permittee, including locations where the MS4 is physically interconnected to the MS4 of another operator ;

- (iii) the location of all structural flood control devices, if different from the characteristics listed above;
- (iv) the names and locations of receiving waters of the U.S. that receive discharges from the outfalls;
- (v) the location of all existing structural storm water treatment controls;
- (vi) identification of subwatersheds, associated land uses, and approximate acreage draining into each MS4 outfall; and
- (vii) the location of Permittee-owned vehicle maintenance facilities, material storage facilities, maintenance yards, and snow disposal sites; Permittee-owned or operated parking lots and roadways.

A summary description of the Permittees' storm sewer system inventory and a map must be submitted to EPA as part of the reapplication package required by Part VI.B

- b) **Catch Basin and Inlet Cleaning.** No later than September 30, 2016, the Permittees must initiate an inspection program to inspect all Permittee-owned or operated catch basins and inlets at least every two years and take appropriate maintenance action based on those inspections. Inspection records must be maintained and summarized in each Annual Report.
- c) **Street and Road Maintenance.** No later than September 30, 2015, the Permittees responsible for road and street maintenance must update any standard operating procedures for storm water controls to ensure the use of BMPs that, when applied to the Permittee's activity or facility, will protect water quality, and reduce the discharge of pollutants to the MEP. The operating procedures must contain, for each activity or facility, inspection and maintenance schedules specific to the activity, and appropriate pollution prevention/good housekeeping procedures for all of the following types of facilities and/or activities listed below. Water conservation measures should be considered for all landscaped areas.
 - (i) **Streets, roads, and parking lots.** The procedures must address, but are not limited to: road deicing, anti-icing, and snow removal practices; snow disposal areas; street/road material (e.g. salt, sand, or other chemical) storage areas; maintenance of green infrastructure/low impact development practices; and BMPs to reduce road and parking lot debris and other pollutants from entering the MS4. Within four years of the effective date of this permit, the Permittees must implement all of the pollution prevention/good housekeeping practices established in the SOPs for all streets, roads, highways, and parking lots with more than 3,000 square feet of impervious surface that are owned, operated, or maintained by the Permittees.
 - (ii) **Inventory of Street Maintenance Materials.** Throughout the Permit term, all Permittees with street maintenance

responsibilities must maintain an inventory of street /road maintenance materials, including use of sand and salt, and document the inventory in the corresponding Annual Reports.

- (iii) **Manage Sand with Salt and Salt Storage Areas.** No later than September 30, 2017, the Permittees must address any sand, salt, or sand with salt material stockpiles at each of their materials storage locations to prevent pollutants in stormwater runoff from discharging to the MS4 or into any receiving waterbody. Examples how the Permittee may choose to address runoff from their material storage areas include, but are not limited to: building covered storage areas; fully containing the material stockpile area in a manner that prevents runoff from discharging to the MS4 or a receiving waterbody; relocating and/or otherwise consolidating material storage piles to alternative locations which prevents discharges to the MS4 or a receiving waterbody. The Permittees must identify their material storage locations in the SWMP documentation submitted to EPA with the 1st year Annual Report and reference the average quantity of material stored at each location in the inventory required in Part II.B.4.c.ii. Permittees must document in the 5th Year Annual Report how their material stockpiles have been addressed to prevent runoff from discharging to the MS4 or a receiving waterbody.
- d) **Street, Road and Parking Lot Sweeping.** Each Permittee with street, road, and/or public parking lot maintenance responsibilities must update their respective sweepings management plans no later than September 30, 2015. Each updated plan must designate all streets, roads, and/or public parking lots which are owned, operated or maintained by that Permittee to fit within one of the following categories for sweeping frequency based on land use, traffic volumes or other factors:
- Residential – Streets and road segments that include, but are not limited to, light traffic zones and residential zones.
 - Arterial and all other – Streets and road segments with high traffic volumes serving commercial or industrial districts.
 - Public Parking Lots – large lots serving schools and cultural facilities, plazas, sports and event venues or similar facilities.
- (i) No later than September 30, 2014, each Permittee with street, road, and/or public parking lot maintenance responsibilities must inventory and map all of their designated streets, roads, and public parking lots for sweeping frequency. The resulting inventory and map must be submitted as part of the 2nd Year Annual Report.
- (ii) No later than September 30, 2015, Permittees with street, road, and/or public parking lot maintenance responsibilities must

sweep all streets, roads, and public parking lots that are owned, operated or maintained by that Permittee according to the following schedule:

Table II.B-2

Roadway Type	Sweeping Schedule			
	Two Times Per Month	Every Six Weeks	Four Times Per Year	One Time Per Year
Downtown Areas of Boise and Garden City	X			
Arterial and Collector Roadways (non-downtown)		X		
Residential Roadways			X	
Paved Alleys and Public Parking Lots				X

- (iii) If a Permittee’s existing overall street/road/parking lot sweeping program provides equivalent or greater street sweeping frequency to the requirements above, the Permittee must continue to implement its existing street/road/parking lot sweeping program.
- (iv) For areas where sweeping is technically infeasible, the Permittees with street, road, and/or public parking lot maintenance responsibilities must document in the 1st Year Annual Report each area and indicate why sweeping is infeasible. The Permittee must document what alternative sweeping schedule will be used, or how the Permittee will increase implementation of other trash/litter control procedures to minimize pollutant discharges to the MS4 and to receiving waters.
- (v) The Permittees with street, road, and/or public parking lot maintenance responsibilities must estimate the effectiveness of their street sweeping activities to minimize pollutant discharges to the MS4 and receiving waters, and document the following in each Annual Report:

- Identify any significant changes to the designated road/street/parking lot inventory and map, and the basis for those changes;
 - Report annually on types of sweepers used, swept curb and/or lane miles, dates of sweeping by general location and frequency category, volume or weight of materials removed and a representative sample of the particle size distribution of swept material;
 - Report annually on any public outreach efforts or other means to address excess leaves and other material as well as areas that are infeasible to sweep.
- e) **Implement appropriate requirements for pesticide, herbicide, and fertilizer applications.** Permittees must continue to implement practices to reduce the discharge of pollutants to the MS4 associated with the application, storage and disposal of pesticides, herbicides and fertilizers from municipal areas and activities. Municipal areas and activities include, at a minimum, municipal facilities, public right-of-ways, parks, recreational facilities, golf courses, and landscaped areas. All employees or contractors of the Permittees applying restricted use pesticides must be registered as certified applicators.
- f) **Develop and implement Storm Water Pollution Prevention Plans.** No later than September 30, 2015, the Permittees must develop and implement SWPPPs for all Permittee-owned material storage facilities, and maintenance yards located within the Permit area and identified in the inventory required in Parts II.B.3.a and II.B.4.a.viii. Permittee-owned facilities discharging storm water associated with industrial activity as defined in 40 CFR 122.26(b)(14) must obtain separate NPDES permit coverage as required in Part I.D.4 of this permit.
- g) **Storm Water Management.** Each Permittee must ensure that any storm water management projects it undertakes after the effective date of this Permit are designed and implemented to prevent adverse impacts on water quality.
- (i) Permittees must evaluate the feasibility of retrofitting existing storm water control devices to provide additional pollutant removal from collected storm water.
 - (ii) No later than the expiration date of this Permit, Permittees must identify and define all locations where such retrofit project opportunities are feasible, identify appropriate funding sources, and outline project timelines or schedule(s) for retrofit projects designed to better control the discharge of pollutants of concern to the Boise River and its tributaries.
- h) **Litter Control.** Throughout the Permit term, each Permittee must continue to implement effective methods to reduce litter within their jurisdiction. Permittees must work with others as appropriate to control litter on a

regular basis and after major public events to reduce the discharge of pollutants to receiving waters.

- i) **Training.** The Permittees must provide regular training to appropriate Permittee staff on all operations and maintenance procedures designed to prevent pollutants from entering the MS4 and receiving waters. Appropriate Permittee staff must receive training no later than September 30, 2015, and annually thereafter.

5. Illicit Discharge Management. An illicit discharge is any discharge to an MS4 that is not composed entirely of storm water. Exceptions are described in Part I.D. of this permit. The Permittees must continue to implement their illicit discharge management program to reduce to the MEP the unauthorized and illegal discharge of pollutants to the MS4. The program must include:

- a) **Ordinance or other regulatory mechanisms.** Upon the effective date of this Permit, the Permittees must effectively prohibit non-storm water discharges to the MS4 (except those identified in Part 1.D of this permit) through enforcement of relevant ordinances or other regulatory mechanisms. Such ordinances/regulatory mechanisms must be updated prior to the expiration date of this Permit as necessary to provide adequate controls. To be considered adequate, an ordinance or regulatory mechanism must:
 - (i) Authorize the Permittee to prohibit, at a minimum, the following discharges to the MS4, unless otherwise authorized in Part 1.D:
 - Sewage;
 - Discharges of wash water resulting from the hosing or cleaning of gas stations, auto repair garages, or other types of automotive services facilities;
 - Discharges resulting from the cleaning, repair, or maintenance of any type of equipment, machinery, or facility, including motor vehicles, cement-related equipment, and port-a-potty servicing, etc.;
 - Discharges of wash water from mobile operations, such as mobile automobile or truck washing, steam cleaning, power washing, and carpet cleaning, etc.;
 - Discharges of wash water from the cleaning or hosing of impervious surfaces in municipal, industrial, commercial, and residential areas - including parking lots, streets, sidewalks, driveways, patios, plazas, work yards and outdoor eating or drinking areas, etc. - where no detergents are used and no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed);
 - Discharges of runoff from material storage areas containing chemicals, fuels, grease, oil, or other hazardous materials;

- Discharges of pool or fountain water containing chlorine, biocides, or other chemicals; discharges of pool or fountain filter backwash water;
 - Discharges of sediment, pet waste, vegetation clippings, or other landscape or construction-related wastes; and
 - Discharges of food-related wastes (grease, fish processing, and restaurant kitchen mat and trash bin wash water, etc.).
- (ii) Prohibit and eliminate illicit connections to the MS4;
- (iii) Control the discharge of spills, and prohibit dumping or disposal of materials other than storm water into the MS4.
- b) **Illicit Discharge Complaint Reporting and Response Program.** At a minimum, Permittees must respond to reports of illicit discharges from the public in the following manner:
- (i) **Complaint/Reporting Hotline.** The Permittees must maintain the dedicated telephone number and email address, or other publicly available and accessible means in addition to the website required in Part II.B.6, for use by the public to report illicit discharges. This complaint hotline must be answered by trained staff during normal business hours. During non-business hours, a system must be in place to record incoming calls to the hotline and a system must be in place to guarantee timely response. The telephone number must be printed on appropriate education, training, and public participation materials produced under Part II.B.6, and clearly listed in the local telephone book as appropriate.
- (ii) **Response to Complaints/Reports.** The Permittees must respond to all complaints or reports of illicit discharges as soon as possible, but no later than within two working days.
- (iii) **Maintain log of complaints/reports received and actions taken.** The Permittees must maintain a record documenting all complaints or reports of illicit discharges and responses taken by the Permittees.
- c) **Illicit Discharge Mapping.** No later than September 30, 2014, the Permittees must develop a map of reported and documented illicit discharges or illicit connections to identify priority areas. The map must identify, at a minimum, the location, type and relative quantity or severity of the known, recurrent or ongoing non-storm water discharges to the MS4. This map must be updated annually and used to target the specific outfall locations for that field screening season.
- d) **Dry Weather Outfall Screening Program.** Permittees must implement, and update as necessary, a dry weather analytical and field screening monitoring program. This dry weather outfall screening program must emphasize frequent, geographically widespread monitoring to detect illicit discharges and illegal connections, and to reinvestigate potentially

problematic outfalls. At a minimum, the procedures must be based on the following guidelines and criteria:

- (i) **Outfall Identification.** The Permittees must update as necessary the storm water outfall identification and screening plan, describing the reconnaissance activities that must be performed and information used to prioritize targeted outfalls and associated land uses.. The plan must discuss how chemical and microbiological analysis will be conducted on any flows identified during dry weather screening, including field screening methodologies and associated trigger thresholds to be used for determining follow-up action.
- (ii) **Monitoring Illicit Discharges.** No later than September 30, 2015, dry weather analytical and field screening monitoring must be conducted at least once annually (or more often if the Permittees deem necessary). One third of the outfalls to be screened annually must be conducted within the June 1 and September 30th timeframe.
 - Upon the effective date of the Permit, the Permittees must conduct visual dry weather screening of at least 20% of their total outfalls per year.
 - The outfalls must be geographically dispersed across the MS4 and must represent all major land uses in the Permit area. In addition, the Permittees must ensure that dry weather screening includes, but is not limited to, screening of 20% outfalls discharging to impaired waters listed in Table II.C.
 - When flows during dry weather are identified the Permittees must collect grab samples of the discharge for in-field analysis of the following indicator constituents: pH; total chlorine; detergents as surfactants; total copper; total phenols; *E. coli*; total phosphorus; turbidity; temperature; and suspended solids concentrations (to be measured in mg/L).
 - Photos may be used to document conditions.
 - Results of field sampling must be compared to established trigger threshold levels and/or existing state water quality standards. If the outfall is dry (no flowing or ponded runoff), the Permittees must make and record all applicable visual observations.
 - All dry weather flows previously identified or documented by the Permittees to be associated with irrigation flows or ground water seepage must be sampled to assess pollutant loading associated with such flows. The results must be evaluated to identify feasible actions necessary to eliminate such flows and ensure compliance with Part I.D of this Permit. If field sample

results of such irrigation or groundwater seepage comply with Part I.D of this permit, annual sampling of that dry weather flow at that outfall is no longer required. Permittees must document in the SWMP document the specific location(s) of outfalls associated with these results as well as the Permittee's rationale for the conclusion to discontinue future dry weather screening at that location..

- (iii) **Maintain Records of Dry Weather Screening.** The Permittees must keep detailed records of the dry weather screening with the following information at a minimum: time since last rain event; quantity of last rain event; site description (e.g., conveyance type, dominant watershed land uses); flow estimation (e.g., width of water surface, approximate depth of water, approximate flow velocity, flow rate); visual observations (e.g., odor, color, clarity, floatables, deposits/stains, vegetation condition, structural condition, and biology); results of any in field sampling; and recommendations for follow-up actions to address identified problems, and documentation of completed follow-up actions.
- e) **Follow-up.** The Permittees must investigate recurring illicit discharges identified as a result of complaints or as a result of dry weather screening inspections and sampling within fifteen (15) days of its detection to determine the source. Permittees must take appropriate action to address the source of the ongoing illicit discharge within 45 days of its detection.
- f) **Prevent and Respond to Spills to the MS4.** Throughout the Permit term, the Permittees must coordinate appropriate spill prevention, containment and response activities throughout all appropriate departments, programs and agencies to ensure maximum water quality protection at all times. The Permittees must respond to, contain and clean up all sewage and other spills that may discharge into the MS4 from any source (including private laterals and failing septic systems).
- g) **Facilitate Disposal of Used Oil and Toxic Materials.** The Permittees must continue to coordinate with appropriate agencies to ensure the proper management and disposal or recycling of used oil, vehicle fluids, toxic materials, and other household hazardous wastes by their employees and the public. Such a program must include educational activities, public information activities, and establishment of collection sites operated by the Permittees or other entity. The program must be implemented throughout the Permit term.
- h) **Training.** No later than September 30, 2014, and annually thereafter, the Permittees must develop and provide training to staff on identifying and eliminating illicit discharges, spill, and illicit connections to the MS4. At a minimum, the Permittee's construction inspectors, maintenance field staff, and code compliance officers must be sufficiently trained to respond to illicit discharges and spills to the MS4.

6. Education, Outreach and Public Involvement.

- a) **Comply with Applicable Requirements.** The Permittees must comply with applicable State and local public notice requirements when implementing their SWMP public involvement activities.
- b) **Implement an Ongoing Education Outreach and Involvement Program.** The Permittees must conduct, or contract with other entities to conduct, an ongoing joint education, outreach and public involvement program aimed at residents, businesses, industries, elected officials, policy makers, and Permittee planning staff /other employees.

The goal of the education and outreach program is to reduce or eliminate behaviors and practices that cause or contribute to adverse storm water impacts. The goal of the public involvement program is to engage interested stakeholders in the development and implementation of the Permittees' SWMP activities to the extent allowable pursuant to the respective authority granted individual Permittees under Idaho law.

The Permittees' joint education and public involvement program must be designed to improve each target audience's understanding of the selected storm water issues, engage stakeholders, and help target audiences understand what they can do to positively impact water quality by preventing pollutants from entering the MS4.

- (i) No later than September 30, 2014, the Permittees must implement or participate in an education, outreach and public involvement program using a variety of methods to target each of the audiences and at least one or more of the topics listed below:

- 1) General Public

- Watershed characteristics and subwatershed planning efforts as required in Part II.A.4;
- General impacts of storm water flows into surface water;
- Impacts from impervious surfaces;
- Source control best management practices and environmental stewardship, actions and opportunities for pet waste control/disposal, vehicle maintenance, landscaping and vegetative buffers;
- Water wise landscaping, water conservation, water efficiency.

- 2) General public and businesses, including home based and mobile businesses

- Best management practices for use and storage of automotive chemicals, hazardous cleaning supplies, vehicle wash soaps and other hazardous materials;

- Proper use and application of pesticides, herbicides and fertilizers;
 - Impacts of illicit discharges and how to report them;
 - Water wise landscaping, water conservation, water efficiency.
- 3) Homeowners, homeowner's associations, landscapers, and property managers
- Yard care techniques protective of water quality, such as composting;
 - Best management practices for use and storage of pesticides, herbicides, and fertilizers;
 - Litter and trash control and recycling programs;
 - Best management practices for power washing, carpet cleaning and auto repair and maintenance;
 - Low Impact Development techniques, including site design, pervious paving, retention of mature trees and other vegetation;
 - Storm water treatment and flow/volume control practices;
 - Water wise landscaping, water conservation, water efficiency.
- 4) Engineers, contractors, developers, review staff, and land use planners
- Technical standards for storm water site plans;
 - Low Impact Development techniques, including site design, pervious paving, retention of mature trees and other vegetation;
 - Storm water treatment and flow/volume control practices;
 - Water wise landscaping, water conservation, water efficiency.
- 5) Urban farmers and managers of public and private community gardens
- Water wise landscaping, water conservation, and water efficiency.
- (ii) The Permittees must assess, or participate in an effort to assess understanding and adoption of behaviors by the target audiences.

The resulting assessments must be used to direct storm water education and outreach resources most effectively.

- (iii) The Permittees must track and maintain records of public education, outreach and public involvement activities.
- c) **Targeted Education and Training.** For the specific topics identified in the Permit sections listed below, the Permittees must develop and implement, or contract with other entities to implement, targeted training programs to educate appropriate Permittee staff or other audiences within their jurisdiction. Where joint, cooperative education efforts to address these topics are not feasible, the individual Permittee must ensure that the necessary education and training occurs for the following topics:
- (i) II.B.1.f - Construction Storm Water Management Training for construction site operators and Permittee staff;
 - (ii) II.B.2.g – Permanent Storm Water Control Training for project operators and Permittee staff;
 - (iii) II.B.4.i– Storm Water Infrastructure and Street Management/ Maintenance training for the Permittee staff; and
 - (iv) II.B.5.h – Illicit Discharge Management Training for Permittee staff.
- d) **Storm Water Website.** The Permittees must maintain and promote at least one publicly-accessible website that identifies each Permittee’s SWMP activities and seeks to educate the audiences listed in Part II.B.6.b.i. The website(s) must describe and provide relevant information regarding the activities of all Permittees. The website must be updated no later than February 1, 2014, and updated at least quarterly thereafter as new material is available. The website must incorporate the following features:
- (i) All reports, plans, or documents generated by each Permittee in compliance with this Permit must be posted on the website in draft form when input from the public is being solicited, and in final form when the document is completed.
 - (ii) Information and/or links to key sites that provide education, training, licensing, and permitting related to construction and post-construction storm water management controls and requirements for each jurisdiction. The website must include links to all applicable ordinances, policies and/or guidance documents related to the Permittees’ construction and post-construction stormwater management control programs.
 - (iii) Information and/or links to appropriate controls for industrial and commercial activities,
 - (iv) Information and/or links to assist the public to report illicit connections and illegal dumping activity;

- (v) Appropriate Permittee contact information, including phone numbers for relevant staff and telephone hotline, mailing addresses, and electronic mail addresses.

C. Discharges to Water Quality Impaired Receiving Waters.

1. The Permittees must conduct a storm water discharge monitoring program as required in Part IV.
2. For the purposes of this Permit and as listed in Table II.C, the Clean Water Act §303 (d) listed water bodies are those cited in the IDEQ 2010 Integrated Report including, but not limited to the Lower Boise River, and its associated tributaries. "Pollutant(s) of concern" refer to the pollutant(s) identified as causing or contributing to the water quality impairment. Pollutants of concern for the purposes of this Permit are: total phosphorus, sediment, temperature, and *E. coli*.
3. Each Permittees' SWMP documentation must include a description of how the activities of each minimum control measure in Part II.B are implemented by the Permittee to control the discharge of pollutants of concern and ensure that the MS4 discharges will not cause or contribute to an excursion above the applicable Idaho water quality standards. This discussion must specifically identify how the Permittee evaluates and measures the effectiveness of the SWMP to control the pollutants of concern. For those activities identified in Part II.B requiring multiple years to develop and implement, the Permittee must provide interim updates on progress to date. Consistent with Part II.A.1.b, each Permittee must submit this description of the SWMP implementation to EPA and IDEQ as part of the 1st Year Annual Report required in Part IV.C, and must update its description annually in subsequent Annual Reports.

Table II.C	
Clean Water Act §303 (d) listed Water Bodies and Pollutants of Concern	
Receiving Water Body Assessment Unit/ Description	Pollutants of Concern Causing Impairment
<i>ID17050114SW011a_06</i> <i>Boise River – Diversion Dam to River Mile 50</i>	Temperature
<i>ID17050114SW005_06</i> <i>Boise River – River Mile 50 to Star Bridge</i>	Temperature, Sediment, <i>E. coli.</i>
<i>ID17050114SW005_06a</i> <i>Boise River – Star to Middleton</i>	Temperature, Sediment, <i>E. coli.</i>
<i>ID17050114SW005_06b</i> <i>Boise River- Middleton to Indian Creek</i>	Temperature, Total phosphorus, Sediment, <i>E. coli.</i>
<i>ID17050114SW001_06</i> <i>Boise River- Indian Creek to the mouth</i>	Temperature, Total phosphorus, Sediment, <i>E. coli.</i>
<i>ID17050114SW008_03</i> <i>Tenmile Creek - 3rd order below Blacks Creek Reservoir</i>	Sediment, <i>E. coli.</i>
<i>ID17050114SW010_02</i> <i>Fivemile Creek - 1st & 2nd order tributaries</i>	<i>E. coli.</i>
<i>ID17050114SW010_03</i> <i>Fivemile Creek - 3rd order-tributaries</i>	Sediment, <i>E. coli.</i>

D. Reviewing and Updating the SWMP.

1. Permittees must annually review their SWMP actions and activities for compliance with this Permit as part of the preparation of the Annual Report required under Part IV.C.2.
2. Permittees may request changes to any SWMP action or activity specified in this Permit in accordance with the following procedures:
 - a) Changes to delete or replace an action or activity specifically identified in this Permit with an alternate action or activity may be requested by the Permittees at any time. Modification requests to EPA must include:
 - (i) An analysis of why the original action or activity is ineffective, infeasible, or cost prohibitive;
 - (ii) Expectations on the effectiveness of the replacement action or activity; and
 - (iii) An analysis of why the replacement action or activity is expected to better achieve the Permit requirements.
 - b) Change requests must be made in writing and signed by the Permittees in accordance with Part VI.E.
 - c) Documentation of any of the actions or activities required by this Permit must be submitted to EPA upon request.
 - d) EPA may review Annual Reports or other such documentation and subsequently notify the Permittees that changes to the SWMP actions and activities are necessary to:
 - (i) Address discharges from the MS4 that are causing or contributing to water quality impacts;
 - (ii) Include more stringent requirements necessary to comply with new federal or state statutory or regulatory requirements; or
 - (iii) Include other conditions deemed necessary by EPA to comply with water quality standards, and/or other goals and requirements of the CWA.
 - e) If EPA notifies the Permittees that changes are necessary pursuant to Parts II.D.2.a or II.D.2.d, the notification will offer the Permittees an opportunity to propose alternative program changes to meet the objectives of the requested modification. Following this opportunity, the Permittees must implement any required changes according to the schedule set by EPA.
4. Any modifications to this Permit will be accomplished according to Part VI.A of this Permit.

E. Transfer of Ownership, Operational Authority, or Responsibility for SWMP Implementation. The Permittees must implement the actions and activities of the SWMP in all new areas added or transferred to the Permittee's MS4 (or for which a Permittee becomes responsible for implementation of storm water quality controls) as expeditiously as practicable, but not later than one year from the date upon which the new areas were added. Such additions and schedules for implementation must be documented in the next Annual Report following the transfer.

F. SWMP Resources. The Permittees must continue to provide adequate finances, staff, equipment and other support capabilities to implement their SWMP actions and activities outlined in this permit. The Permittees must report on total costs associated with SWMP implementation over the prior 12 month reporting period in each Annual Report. Permittees are encouraged to consider establishing consistent funding sources for continued program implementation.

G. Legal Authority. To the extent allowable pursuant to the respective authority granted individual Permittees under Idaho law, each Permittee must operate to, at a minimum:

- Prohibit and eliminate, through statute, ordinance, policy, permit, contract, court or administrative order or other similar means, the contribution of pollutants to the MS4 by illicit connections and discharges to the MS4. Illicit connections include pipes, drains, open channels, or other conveyances that have the potential to allow an illicit discharge to enter the MS4. Illicit discharges include all non-storm water discharges not otherwise authorized under Part I.D. of this Permit;
- Control through statute, ordinance, policy, permit, contract, court or administrative order, or other similar means, the discharge to the MS4 of spills, dumping or disposal of materials other than storm water;
- Control through interagency agreements among the Permittees the contribution of pollutants from one portion of the MS4 to another portion of the MS4;
- Require compliance with conditions in statutes, ordinances, policy, permits, contracts, or court or administrative orders; and
- 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 MS4.

No later than January 30, 2014, each Permittee must review and revise its relevant ordinances or other regulatory mechanisms, (or adopt new ordinances or regulatory mechanisms that provide it with adequate legal authority as allowed and authorized pursuant to applicable Idaho law), to control pollutant discharges into and from its MS4 and to meet the requirements of this permit. As part of the SWMP documentation that accompanies the 1st Year Annual Report, each Permittee must summarize all of its unique legal authorities which satisfy the five criteria listed above.

III. Schedule for Implementation and Required Submissions

The Permittees must complete SWMP actions, and/or submit documentation, to EPA and IDEQ as summarized below. Unless otherwise noted, Annual Reports must include the interim or completed status of required SWMP activities occurring during the corresponding reporting period as specified in Part IV.C.3, and include program summary statistics, copies of interim or final documents, and/or other supporting information.

Table III. Schedule for Implementation and Required Submissions		
Permit Part	Item/Action	Due Date
I.C.3	Update intergovernmental agreement no later than July 1, 2013.	Submit updated intergovernmental agreement with the 1 st Year Annual Report.
II.A.1.b, II.C.3	SWMP documentation	Submit SWMP documentation with the 1 st Year Annual Report. Include updated documentation in each subsequent Annual Report.
II.A.4	Complete two subwatershed planning documents	Identify subwatersheds in 1 st Year Annual Report; Submit two completed planning documents with the 4 th Year Annual Report.
II.B.1.a	Update construction runoff control ordinances/regulatory mechanisms, if necessary	September 30, 2015; submit any updated ordinances etc w/ 3 rd Year Annual Report.
II.B.1.b	Update Construction Stormwater Management Manual(s)	September 30, 2015; submit any updated documents with 3 rd Year Annual Report.
II.B.1.e	Develop & Implement Enforcement Response Policy (ERP)	September 30, 2016; submit final ERPs w/ 4 th Year Annual Report
II.B.2.a	Update ordinance or regulatory mechanism requiring long term onsite stormwater management controls	January 30, 2018; submit ordinance or regulatory mechanism with 5 th Year Annual Report.
II.B.2.b	Update Stormwater Design Criteria Manual(s)	September 30, 2015; submit any updated ordinances etc w/ 3 rd Year Annual Report
II.B.2.c	Develop & Implement Green Infrastructure/Low Impact Development (LID) Incentive Strategy;	September 30, 2015;
II.B.2.c.i	Evaluate Effectiveness of LID Practices via three Pilot Projects;	Submit strategy document, identify 3 pilot projects in the 3 rd Year Annual Report.
II.B.2.c.ii, IV.A.10	Identify recommendations for specific LID practices to be adopted within the Permit area	Progress report on strategy implementation/ Pilot Project evaluations w/4 th Year Annual Report. Submit final evaluations & recommendations with the 5 th Year Annual Report.
II.B.2.c.iii	Develop Priority Riparian Area List	September 30, 2015; Submit priority area list with the 3 rd Year Annual Report.
II.B.2.c.iii	Complete Outfall Disconnection Project	Document progress on outfall disconnection project w/3 rd Year Annual Report. Complete outfall disconnection project by January 30, 2018; document completed project in 5 th Year Annual Report.

Table III. Schedule for Implementation and Required Submissions, continued

Permit Part	Item/Action	Due Date
II.B.2.c.iv	Consider/install stormwater runoff reduction techniques for streets, roads & parking lot repair work entering design phase after February 1, 2013 where feasible	Document all locations of street/road/parking lot repair projects where runoff reduction techniques were installed w/5 th Year Annual Report.
II.B.2.e.i	O&M Database of new permanent stormwater controls; Incorporate all existing controls into database	Include new controls beginning February 1, 2013; Existing controls, no later than January 30, 2018.
II.B.2.f.i	Identify high priority locations; annual inspections	September 30, 2017
II.B.2.f.ii	Develop inspection checklists	September 30, 2017
II.B.2.f.iii	Enforcement Response Policy for SW controls	September 30, 2017
II.B.2.g	Conduct Education/Training on Permanent SW Controls	September 30, 2015; staff training & training for local audiences, September 30, 2016.
II.B.3.a	Inventory Industrial & Commercial facilities/activities	September 30, 2016
II.B.3.a.iii	Identify two specific activities, develop BMPs, and begin compliance assistance education program	September 30, 2016
II.B.3.b	Update Permittee agreements; inspect selected industrial & commercial facilities/activities	September 30, 2016
II.B.3.c	Document industrial & commercial inspection and compliance assistance activities	Annually
II.B.4.a	Update MS4 system inventory & map	No later than January 30, 2018; include w/5 th Year Annual Report
II.B.4.b	Inspect of catch basins at least every two years	September 30, 2016
II.B.4.c	Update SOPs for Street & Road Maintenance	September 30, 2015
II.B.4.c.iii	Cover storage facilities for sand/salt storage areas	September 30, 2017; Identify locations in SWMP w/1 st year Annual Report; Final documentation w/5 th Year Annual Report
II.B.4.d	Update Street/Road/Parking Lot Sweeping Plans	September 30, 2015
II.B.4.d.i	Inventory/map designated areas	September 30, 2014; submit w/2 st Year Annual Report
II.B.4.d.ii	Sweep according to schedule	September 30, 2015
II.B.4.d.iv,	Identify infeasible sweeping areas, alternative schedule or other program	Document in 1 st Year Annual Report
II.B.4.d.v	Estimate sweeping effectiveness	Document in each Annual Report
II.B.4.f	Develop facility& maintenance yards SWPPPs	September 30, 2015
II.B.4.i	Train Permittee staff	September 30, 2016; annually thereafter
II.B.4.g	Evaluate the feasibility of retrofitting existing control devices	January 30, 2018; submit evaluation with 5 th Year Annual Report

Table III. Schedule for Implementation and Required Submissions, continued

Permit Part	Item/Action	Due Date
II.B.5.c	Inventory/Map Illicit Discharge Reports	September 30, 2014, update annually
II.B.5.d.ii, IV.A.11	Conduct dry weather outfall screening; update screening plan; inspect 20% of outfalls per year	September 30, 2015; inspect 20% annual ly
II.B.6.b	Conduct public education & assess understanding to specific audiences	September 30, 2014; ongoing
II.B.6.d	Maintain, Promote, and Update Storm water Website	September 30, 2014, quarterly thereafter
II.C.3, II.A.1.b	Identify how Permittee controls are implemented to reduce discharge of pollutants of concern, measure SWMP effectiveness	Include discussion in SWMP documentation submitted with 1 st Year Annual Report
II.E	Implement SWMP in all geographic areas newly added or annexed by Permittee	No later than one year from date new areas are added to Permittee's jurisdiction
II.F	Report SWMP implementation costs for the corresponding 12 month reporting period	Within each Annual Report
II.G	Review & Summarize legal authorities or regulatory mechanisms used by Permittee to implement & enforce SWMP & Permit requirements	No later than January 30, 2014, summarize legal authorities within the required SWMP documentation submitted with 1 st Annual Report
IV.A.1	Assess & Document Permit Compliance	Annually; submit with Annual Reports
IV.A.2	Develop & Complete Stormwater Monitoring & Evaluation Plan	September 30, 2014; Submit Completed Plan with 2 nd Year Annual Report
IV.A.7.a	Update <i>Boise NPDES Municipal SW Monitoring Plan</i>	September 30, 2015
IV.A.7.b	Monitor Five Representative Outfalls During Wet Weather; sample three times per year thereafter	No later than September 30, 2014
IV.A.8	If Applicable: update SW Monitoring & Evaluation Plan to include WQ Monitoring and/or Fish Tissue Sampling	If applicable: Update SW Monitoring & Evaluation Plan by September 30, 2014 to include WQ Monitoring and/or Fish Tissue Sampling; submit with 2 nd Year Annual Report
IV.A.9	Evaluate Effectiveness of 2 Structural Control Techniques Currently Required by the Permittees	Begin evaluations no later than September 30, 2015; document in Annual Report(s)
IV.C.1	Submit Stormwater Outfall Discharge Data	2 nd Year Annual Report, annually thereafter
IV.C.2	Submit WQ Monitoring or Fish Tissue Sampling Data Report (if applicable)	2 nd Year Annual Report, annually thereafter
IV.C.3	Submit Annual Reports	1 st Year Annual Report due January 30, 2014; all subsequent Annual Reports are due annually no later than January 30 th ; See Table IV.C.
VI.B	Submit Permit Renewal Application	No later than 180 days prior to Permit Expiration Date; see cover page. Alternatively, Renewal Application may be submitted as part of the 4 th Year Annual Report.

IV. Monitoring, Recordkeeping and Reporting Requirements.

A. Monitoring

1. **Assess Permit Compliance.** At least once per year, each Permittee must individually evaluate their respective organization's compliance with these Permit conditions, and progress toward implementing each of the control measures defined in Part II. The compliance evaluation must be documented in each Annual Report required in Part IV.C.2.
2. **Stormwater Monitoring and Evaluation Program Plan and Objectives.** The Permittees must conduct a wet weather monitoring and evaluation program, or contract with another entity to implement such a program. This stormwater monitoring and evaluation program must be designed to characterize the quality of storm water discharges from the MS4, and to evaluate overall effectiveness of selected storm water management practices.
 - a) No later than September 30, 2014, the Permittees must develop a stormwater monitoring and evaluation plan that includes the quality assurance requirements, outfall monitoring, in-stream and/or fish tissue monitoring (as appropriate), evaluation of permanent storm water controls and evaluation of LID pilot project effectiveness as described later in this Part. In general, the Permittees must develop and conduct a stormwater monitoring and evaluation program to:
 - (i) Broadly estimate reductions in annual pollutant loads of sediment, bacteria, phosphorus and temperature discharged to impaired receiving waters from the MS4s, occurring as a result of the implementation of SWMP activities;
 - (ii) Assess the effectiveness and adequacy of the permanent storm water controls and LID techniques or controls selected for evaluation by the Permittees and which are intended to reduce the total volume of storm water discharging from impervious surfaces and/or improve overall pollutant reduction in stormwater discharges; and
 - (iii) Identify and prioritize those portions of each Permittee's MS4 where additional controls can be accomplished to further reduce total volume of storm water discharged and/or reduce pollutants in storm water discharges to waters of the U.S.
 - b) The final, updated stormwater monitoring and evaluation plan must be submitted to EPA with the 2nd Year Annual Report.
3. **Representative Sampling.** Samples and measurements must be representative of the nature of the monitored discharge or activity.
4. **Analytical Methods.** Sample collection, preservation, and analysis must be conducted according to sufficiently sensitive methods/test procedures approved under 40 CFR Part 136, unless otherwise approved by EPA. Where an approved 40 CFR Part 136 method does not exist, and other test procedures

have not been specified, any available method may be used after approval from EPA.

5. **Quality Assurance Requirements.** The Permittees must develop or update a quality assurance plan (QAP) for all analytical monitoring conducted in accordance with this Part. The QAP must be developed concurrently as part of the stormwater monitoring and evaluation plan. The Permittees must submit the QAP as part of the stormwater monitoring and evaluation plan to EPA and IDEQ in the 2nd Year Annual Report. Any existing QAP may be modified for the requirements under this section.

- a) The QAP must be designed to assist in the collection and analysis of storm water discharges in support of this Permit and in explaining data anomalies when they occur.
- b) Throughout all sample collection, analysis and evaluation activities, Permittees must use the EPA-approved QA/QC and chain-of-custody procedures described in the most current version of the following documents:
 - (i) *EPA Requirements for Quality Assurance Project Plans EPA-QA/R-5* (EPA/240/B-01/003, March 2001). A copy of this document can be found electronically at:
<http://www.epa.gov/quality/qs-docs/r5-final.pdf>;
 - (ii) *Guidance for Quality Assurance Project Plans EPA-QA/G-5*, (EPA/600/R-98/018, February, 1998). A copy of this document can be found electronically at:
<http://www.epa.gov/r10earth/offices/oea/epaqag5.pdf> ;
 - (iii) *Urban Storm BMP Performance Monitoring*, (EPA-821-B-02-001, April 2002). A copy of this document can be found electronically at:
<http://www.epa.gov/npdes/pubs/montcomplete.pdf>

The QAP should be prepared in the format specified in these documents.

- c) At a minimum, the QAP must include the following:
 - (i) Organization chart reflecting responsibilities of key Permittee staff;
 - (ii) Details on the number of samples, type of sample containers, preservation of samples, holding times, analytical methods, analytical detection and quantitation limits for each target compound, type and number of quality assurance field samples, precision and accuracy requirements, sample representativeness and completeness, sample preparation requirements, sample shipping methods, and laboratory data delivery requirements;
 - (iii) Data quality objectives;

- (iv) Map(s) and associated documentation reflecting the location of each sampling point and physical description including street address or latitude/longitude;
 - (v) Qualification and training of personnel;
 - (vi) Name(s), address(es) and telephone number(s) of the laboratories, used by or proposed to be used by the Permittees;
 - (vii) Data management;
 - (viii) Data review, validation and verification; and
 - (ix) Data reconciliation.
- d) The Permittees must amend the QAP whenever there is a modification in sample collection, sample analysis, or other procedure addressed by the QAP. The amended QAP must be submitted to EPA as part of the next Annual Report.
- e) Copies of any current QAP must be maintained by the Permittees and made available to EPA and/or IDEQ upon request.
6. **Additional Monitoring by Permittees.** If the Permittees monitor more frequently, or in more locations, than required by this Permit, the results of any such additional monitoring must be included and summarized with other data submitted to EPA and IDEQ as required in Part IV.C.
7. **Storm Water Outfall Monitoring**
- a) No later than September 30, 2015, the Permittees must update the existing *Boise NPDES Municipal Storm Water Permit Monitoring Plan* to be consistent with the monitoring and evaluation program objectives and plan as described in Part IV.A.2. At a minimum, the plan must describe five outfall sample locations, and any additional or alternative locations, as defined by the Permittees. The outfalls selected by the Permittees to be monitored must be identified as representative of all major land uses occurring within the Permit area.
 - b) No later than September 30, 2014, the Permittees must begin monitoring discharges from the identified five storm water outfalls during wet weather events at least three times per year. The specific minimum monitoring requirements are outlined in Table IV.A, but may be augmented based on the Permittees' updated stormwater monitoring and evaluation plan required by Part IV.A.2. The Permittees must include any additional parameters to be sampled in an updated Table IV.A within the final updated stormwater monitoring and evaluation plan submitted to EPA with the 2nd Annual Report.

Table IV.A – Outfall Monitoring Requirements^{1, 2}
PARAMETER SAMPLING
Ammonia
Total Kjeldahl Nitrogen (TKN) (mg/l)
Nitrate + Nitrite
Total Phosphorus (mg/l)
Dissolved Orthophosphate (mg/l)
<i>E. coli</i>
Biological Oxygen Demand (BOD5) (mg/l)
Chemical Oxygen Demand (COD) (mg/l)
Total Suspended Solids (TSS) (mg/l)
Total Dissolved Solids (TDS) (mg/l)
Dissolved Oxygen
Turbidity (NTU)
Temperature
pH (S.U)
Flow/Discharge, Volume, in cubic feet
Arsenic – Total
Cadmium- Total and Dissolved
Copper – Dissolved
Lead – Total and Dissolved
Mercury – Total
Zinc – Dissolved
Hardness (as CaCO₃) (mg/l)
<p>¹ Five or more outfall locations will be identified in the Permittees' updated stormwater monitoring and evaluation plan</p> <p>² A minimum of <i>three (3) samples</i> must be collected during wet weather storm events in each reporting year, assuming the presence of storm events sufficient to produce a discharge.</p>

8. **Water Quality Monitoring and/or Fish Tissue Sampling.** At the Permittees' option and to augment the storm water discharge data collection required in Part IV.A.7 above, one or more of the Permittees may conduct, or contract with others to conduct, water quality monitoring and/or fish tissue sampling within the Lower Boise River Watershed.
- a) If the Permittees elect to conduct in-stream water quality monitoring and/or fish tissue sampling within the Lower Boise River Watershed, the Permittees must revise the stormwater monitoring and evaluation plan and QAP to describe the monitoring and/or sampling effort(s) per Part IV.A.2 and IV.A.5, no later September 30, 2014.
 - b) The documentation of the Permittees' intended in-stream water quality monitoring and/or fish tissue sampling activities must be included in the final updated stormwater monitoring and evaluation plan submitted with the 2nd Year Annual Report as required in Part IV.A.2.b.
 - c) The Permittees are encouraged to engage in cooperative efforts with other organizations to collect reliable methylmercury fish tissue data within a specific geographic area of the Lower Boise River Watershed. The objective of the cooperative effort is to determine if fish tissue concentrations of methylmercury in the Lower Boise River are compliant with Idaho's methylmercury fish tissue criterion of 0.3 mg/kg.
 - (i) In particular, the Permittees are encouraged to cooperate with other organizations to collect data through implementation of the Methylmercury Fish Tissue Sampling requirements specified in NPDES Permits # ID-002044-3 and ID-002398-1 as issued to the City of Boise. Beginning with the 2nd Year Annual Report, the Permittees' may (individually or collectively) submit documentation in each Annual Report which describes their specific involvement over the prior reporting period, and may reference fish tissue sampling plans and data reports as developed or published by others through the cooperative watershed effort.
9. **Evaluate the Effectiveness of Required Structural Controls.** Within two years of the effective date of this Permit, the Permittees must select and begin to evaluate at least two different types of permanent structural storm water management controls currently mandated by the Permittees at new development or redevelopment sites. For each selected control, this evaluation must determine whether the control is effectively treating or preventing the discharge of one or more of the pollutants of concern into waterbodies listed in Table II.C. The results of this evaluation, and any recommendations for improved treatment performance, must be submitted to EPA in subsequent Annual Reports as the evaluation projects are implemented and completed.
10. **Evaluate the Effectiveness of Green Infrastructure/Low Impact Development Pilot Projects.** The Permittees must evaluate the performance and effectiveness of the three pilot projects required in Part II.B.2.c of this Permit, or contract with another entity to conduct such evaluations. An evaluation summary of the LID technique or control and any recommendations

of improved treatment performance must be submitted in subsequent Annual Reports as the evaluation projects are implemented and completed.

11. **Dry Weather Discharge Screening.** The Permittees must implement a dry weather screening program, or contract with another entity to implement such a program, as required in Part II.B.5.d.

B. Recordkeeping

1. **Retention of Records.** The Permittees must retain records and copies of all information (e.g., all monitoring, calibration, and maintenance records; all original strip chart recordings for any continuous monitoring instrumentation; copies of all reports required by this Permit; storm water discharge monitoring reports; a copy of the NPDES permit; and records of all data or information used in the development and implementation of the SWMP and to complete the application for this Permit;) for a period of at least five years from the date of the sample, measurement, report or application, or for the term of this Permit, whichever is longer. This period may be extended at the request of the EPA at any time.
2. **Availability of Records.** The Permittees must submit the records referred to in Part IV.B.1 to EPA and IDEQ only when such information is requested. At a minimum, the Permittees must retain all records comprising the SWMP required by this Permit (including a copy of the Permit language and all Annual Reports) in a location and format that are accessible to EPA and IDEQ. The Permittees must make all records described above available to the public if requested to do so in writing. The public must be able to view the records during normal business hours. The Permittees may charge the public a reasonable fee for copying requests.

C. Reporting Requirements

1. **Storm Water Discharge Monitoring Report.** Beginning with the 2nd Year Annual Report, and in subsequent Annual Reports, all storm water discharge monitoring data collected to date must be submitted as part of the Annual Report. At a minimum, this Storm Water Discharge Monitoring Report must include:
 - a) Dates of sample collection and analyses;
 - b) Results of sample analyses;
 - c) Location of sample collection. and
 - d) Summary discussion and interpretation of the data collected, including a discussion of quality assurance issues and comparison to previously collected information, as appropriate.
2. **Water Quality Monitoring and/or Fish Tissue Sampling Report(s).** If the Permittees elect to conduct water quality monitoring and/or fish tissue sampling as specified in Part IV.A.8, all relevant monitoring data collected to date must

be submitted as part of each Annual Report beginning with the 2nd Year Annual Report. Summary data reports as prepared by other organizations with whom the Permittee(s) cooperate may be submitted to fulfill this requirement. At a minimum, this Water Quality Monitoring and/or Fish Tissue Sampling Report must include:

- a) Dates of sample collection and analyses;
- b) Results of sample analyses;
- c) Locations of sample collection; and
- d) Summary discussion and interpretation of the data collected, including discussion of quality assurance issues and comparison to previously collected information, as appropriate.

3. Annual Report.

- a) No later than January 30th of each year beginning in 2014, and annually thereafter, each Permittee must submit an Annual Report to EPA and IDEQ. The reporting period for the 1st Year Annual Report will be from February 1, 2013, through September 30, 2013. Reporting periods for subsequent Annual Reports are specified in Table IV.C. Copies of all Annual Reports, including each Permittee's SWMP documentation, must be available to the public, through a Permittee-maintained website, and/or through other easily accessible means.

Table IV.C - Annual Report Deadlines		
Annual Report	Reporting Period	Due Date
1 st Year Annual Report	February 1, 2013–September 30, 2013	January 30, 2014
2 nd Year Annual Report	October 1, 2013-September 30, 2014	January 30, 2015
3 rd Year Annual Report	October 1, 2014-September 30, 2015	January 30, 2016
4 th Year Annual Report	October 1, 2015-September 30, 2016	January 30, 2017
5 th Year Annual Report	October 1, 2016-December 31, 2017	January 30, 2018

- b) Preparation and submittal of the Annual Reports must be coordinated by Ada County Highway District. Each Permittee is responsible for content of their organization's SWMP documentation and Annual Report(s) relating to SWMP implementation for portions of the MS4s for which they are responsible.
- c) The following information must be submitted in each Annual Report:

- (i) A updated and current document describing the SWMP as implemented by the specific Permittee, in accordance with Part II.A.1.b;
 - (ii) A narrative assessment of the Permittee's compliance with this Permit, describing the status of implementing the control measures in Parts II and IV. The status of each control measure must be addressed, even if activity has previously been completed, has not yet been implemented, does not apply to the Permittee's jurisdiction or operation, or is conducted on the Permittee's behalf by another entity;
 - (iii) Discussion of any information collected and analyzed during the reporting period, including but not limited to storm water monitoring data not included with the Storm Water Discharge Monitoring Report; dry weather monitoring results; Green Infrastructure/LID pilot project evaluation results, structural control evaluation results, and any other information collected or used by the Permittee(s) to assess the success of the SWMP controls at improving receiving water quality to the maximum extent practicable;
 - (iv) A summary of the number and nature of public education programs; the number and nature of complaints received by the Permittee(s), and follow-up actions taken; and the number and nature of inspections, formal enforcement actions, or other similar activities as performed by the Permittee(s) during the reporting period;
 - (v) Electronic copies of new or updated education materials, ordinances (or other regulatory mechanisms), inventories, guidance materials, or other products produced as required by this Permit during the reporting period;
 - (vi) A description and schedule of the Permittee's implementation of additional controls or practices deemed necessary by the Permittee, based on monitoring or other information, to ensure compliance with applicable water quality standards;
 - (vii) Notice if the Permittee is relying on another entity to satisfy any of the Permit obligations, if applicable; and
 - (viii) Annual expenditures for the reporting period, and estimated budget for the reporting period following each Annual Report.
- d) If, after the effective date of this Permit, EPA provides the Permittees with an alternative Annual Report format, the Permittees may use the alternative format in lieu of the required elements of Part IV.C.3.c.

D. Addresses

Reports and other documents required by this Permit must be signed in accordance with Part VI.E and submitted to each of the following addresses:

IDEQ: Idaho Department of Environmental Quality
Boise Regional Office
Attn: Water Program Manager
1410 North Hilton
Boise, ID 83854

EPA: United States Environmental Protection Agency
Attention: Storm Water MS4 Compliance Program
NPDES Compliance Unit
1200 6th Avenue, Suite 900 (OCE-133)
Seattle, WA 98101

Any documents and/or submittals requiring formal EPA approval must also be submitted to the following address:

United States Environmental Protection Agency
Attention: Storm Water MS4 Permit Program
NPDES Permits Unit
1200 6th Avenue, Suite 900 (OWW-130)
Seattle, WA 98101

V. Compliance Responsibilities.

A. Duty to Comply. The Permittees must comply with all conditions of this Permit. Any Permit noncompliance constitutes a violation of the Act and is grounds for enforcement action, for Permit termination, revocation and reissuance, or modification, or for denial of a Permit renewal application.

B. Penalties for Violations of Permit Conditions

1. Civil and Administrative Penalties. Pursuant to 40 CFR Part 19 and the Act, any person who violates Section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed the maximum amounts authorized by Section 309(d) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701) (currently \$37,500 per day for each violation).

2. Administrative Penalties. Any person may be assessed an administrative penalty by the Administrator for violating Section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of this Act. Pursuant to 40 CFR Part 19

and the Act, administrative penalties for Class I violations are not to exceed the maximum amounts authorized by Section 309(g)(2)(A) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701) (currently \$16,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$37,500). Pursuant to 40 CFR Part 19 and the Act, penalties for Class II violations are not to exceed the maximum amounts authorized by Section 309(g)(2)(B) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701) (currently \$16,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$177,500).

3. Criminal Penalties

- a) **Negligent Violations.** The Act provides that any person who negligently violates Sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under Section 402 of the Act, or any requirement imposed in a pretreatment program approved under Section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than one year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than two years, or both.
- b) **Knowing Violations.** Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than three years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than six years, or both.
- c) **Knowing Endangerment.** Any person who knowingly violates Section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in Section 309(c)(3)(B)(iii) of the Act, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions.
- d) **False Statements.** The Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this Permit shall, upon conviction, be

punished by a fine of not more than \$10,000, or by imprisonment for not more than two years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than four years, or both. The Act further provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

C. Need to Halt or Reduce Activity not a Defense. It shall not be a defense for the Permittees in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this Permit.

D. Duty to Mitigate. The Permittees must take all reasonable steps to minimize or prevent any discharge or disposal in violation of this Permit that has a reasonable likelihood of adversely affecting human health or the environment.

E. Proper Operation and Maintenance. The Permittees must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittees to achieve compliance with the conditions of this Permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the Permittees only when the operation is necessary to achieve compliance with the conditions of the Permit.

F. Toxic Pollutants. The Permittees must comply with effluent standards or prohibitions established under Section 307(a) of the Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the Permit has not yet been modified to incorporate the requirement.

G. Planned Changes. The Permittee(s) must give notice to the Director and IDEQ as soon as possible of any planned physical alterations or additions to the permitted facility whenever:

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source as determined in 40 CFR §122.29(b);
or
2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in the Permit.

H. Anticipated Noncompliance. The Permittee(s) must give advance notice to the Director and IDEQ of any planned changes in the permitted facility or activity that may result in noncompliance with this Permit.

I. Twenty-four Hour Notice of Noncompliance Reporting

1. The Permittee(s) must report the following occurrences of noncompliance by telephone within 24 hours from the time the Permittee(s) becomes aware of the circumstances:

- a) any noncompliance that may endanger health or the environment;
- b) any unanticipated bypass that exceeds any effluent limitation in the permit (See Part IV.F., “Bypass of Treatment Facilities”);
- c) any upset that exceeds any effluent limitation in the permit (See Part IV.G., “Upset Conditions”); or
- d) any overflow prior to the stormwater treatment facility over which the Permittee(s) has ownership or has operational control. An overflow is any spill, release or diversion of municipal sewage including:
 - (1) an overflow that results in a discharge to waters of the United States; and
 - (2) an overflow of wastewater, including a wastewater backup into a building (other than a backup caused solely by a blockage or other malfunction in a privately owned sewer or building lateral) that does not reach waters of the United States.

2. The Permittee(s) must also provide a written submission within five days of the time that the Permittee(s) becomes aware of any event required to be reported under subpart 1 above. The written submission must contain:

- a) a description of the noncompliance and its cause;
- b) the period of noncompliance, including exact dates and times;
- c) the estimated time noncompliance is expected to continue if it has not been corrected; and
- d) steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
- e) if the noncompliance involves an overflow, the written submission must contain:
 - (1) The location of the overflow;

- (2) The receiving water (if there is one);
- (3) An estimate of the volume of the overflow;
- (4) A description of the sewer system component from which the release occurred (e.g., manhole, constructed overflow pipe, crack in pipe);
- (5) The estimated date and time when the overflow began and stopped or will be stopped;
- (6) The cause or suspected cause of the overflow;
- (7) Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the overflow and a schedule of major milestones for those steps;
- (8) An estimate of the number of persons who came into contact with wastewater from the overflow; and
- (9) Steps taken or planned to mitigate the impact(s) of the overflow and a schedule of major milestones for those steps.

3. The Director of the Office of Compliance and Enforcement may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the NPDES Compliance Hotline in Seattle, Washington, by telephone, (206) 553-1846.

4. Reports must be submitted to the addresses in Part IV.D (“Addresses”).

J. Bypass of Treatment Facilities

1. **Bypass not exceeding limitations.** The Permittee(s) may allow any bypass to occur that does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 2 and 3 of this Part.

2. Notice.

a) **Anticipated bypass.** If the Permittee(s) knows in advance of the need for a bypass, it must submit prior written notice, if possible at least 10 days before the date of the bypass.

b) **Unanticipated bypass.** The Permittee(s) must submit notice of an unanticipated bypass as required under Part III.G (“Twenty-four Hour Notice of Noncompliance Reporting”).

3. Prohibition of bypass.

a) Bypass is prohibited, and the Director of the Office of Compliance and Enforcement may take enforcement action against the Permittee(s) for a bypass, unless:

(1) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and

(3) The Permittee(s) submitted notices as required under paragraph 2 of this Part.

- b) The Director of the Office of Compliance and Enforcement may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph 3.a. of this Part.

K. Upset Conditions

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the Permittee(s) meets the requirements of paragraph 2 of this Part. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

2. Conditions necessary for a demonstration of upset. To establish the affirmative defense of upset, the Permittee(s) must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

- a) An upset occurred and that the Permittee(s) can identify the cause(s) of the upset;
- b) The permitted facility was at the time being properly operated;
- c) The Permittee(s) submitted notice of the upset as required under Part V.I, “*Twenty-four Hour Notice of Noncompliance Reporting*,” and
- d) The Permittee(s) complied with any remedial measures required under Part V.D, “*Duty to Mitigate*.”

3. Burden of proof. In any enforcement proceeding, the Permittee(s) seeking to establish the occurrence of an upset has the burden of proof.

VI. General Provisions

A. Permit Actions.

1. This Permit may be modified, revoked and reissued, or terminated for cause as specified in 40 CFR §§ 122.62, 122.64, or 124.5. The filing of a request by the Permittee(s) for a Permit modification, revocation and reissuance, termination, or a notification of planned changes or anticipated noncompliance, does not stay any Permit condition.

2. Permit coverage may be terminated, in accordance with the provisions of 40 CFR §§122.64 and 124.5, for a single Permittee without terminating coverage for the other Permittees subject to this Permit.

B. Duty to Reapply. If the Permittees intend to continue an activity regulated by this Permit after the expiration date of this Permit, the Permittees must apply for and obtain a

new permit. In accordance with 40 CFR §122.21(d), and unless permission for the application to be submitted at a later date has been granted by the Director, the Permittees must submit a new application at least 180 days before the expiration date of this Permit, or alternatively in conjunction with the 4th Year Annual Report. The reapplication package must contain the information required by 40 CFR §122.21(f), which includes: name and mailing address(es) of the Permittees(s) that operate the MS4(s), and names and titles of the primary administrative and technical contacts for the municipal Permittees(s). In addition, the Permittees must identify any previously unidentified water bodies that receive discharges from the MS4(s); a summary of any known water quality impacts on the newly identified receiving waters; a description of any changes to the number of applicants; and any changes or modifications to the Storm Water Management Program as implemented by the Permittees. The re-application package may incorporate by reference the 4th Year Annual Report when the reapplication requirements have been addressed within that report.

C. Duty to Provide Information. The Permittees must furnish to the Director and IDEQ, within the time specified in the request, any information that the Director or IDEQ may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit, or to determine compliance with this Permit. The Permittees must also furnish to the Director or IDEQ, upon request, copies of records required to be kept by this Permit.

D. Other Information. When the Permittees become aware that it failed to submit any relevant facts in a Permit application, or that it submitted incorrect information in a Permit application or any report to the Director or IDEQ, the Permittees must promptly submit the omitted facts or corrected information.

E. Signatory Requirements. All applications, reports or information submitted to the Director and IDEQ must be signed and certified as follows.

1. All Permit applications must be signed as follows:
 - a) For a corporation: by a responsible corporate officer.
 - b) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively.
 - c) For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official.
2. All reports required by the Permit and other information requested by the Director or the IDEQ must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a) The authorization is made in writing by a person described above;
 - b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or

position having overall responsibility for environmental matters for the organization; and

- c) The written authorization is submitted to the Director and IDEQ.
3. **Changes to Authorization.** If an authorization under Part VI.E.2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part VI.E.2 must be submitted to the Director and IDEQ prior to or together with any reports, information, or applications to be signed by an authorized representative.
4. **Certification.** Any person signing a document under this Part must make the following certification:

"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."

F. Availability of Reports. In accordance with 40 CFR Part 2, information submitted to EPA pursuant to this Permit may be claimed as confidential by the Permittees. In accordance with the Act, permit applications, permits and effluent data are not considered confidential. Any confidentiality claim must be asserted at the time of submission by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice to the Permittees. If a claim is asserted, the information will be treated in accordance with the procedures in 40 CFR Part 2, Subpart B (Public Information) and 41 Fed. Reg. 36902 through 36924 (September 1, 1976), as amended.

G. Inspection and Entry. The Permittees must allow the Director, IDEQ, or an authorized representative (including an authorized contractor acting as a representative of the Director), upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the Permittees' premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor at reasonable times, for the purpose of assuring Permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.

H. Property Rights. The issuance of this Permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, nor any infringement of state or local laws or regulations.

I. Transfers. This Permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the Permit to change the name of the Permittees and incorporate such other requirements as may be necessary under the Act. (See 40 CFR 122.61; in some cases, modification or revocation and reissuance is mandatory.)

J. State/Tribal Environmental Laws

1. Nothing in this Permit shall be construed to preclude the institution of any legal action or relieve the Permittees from any responsibilities, liabilities, or penalties established pursuant to any applicable State/Tribal law or regulation under authority preserved by Section 510 of the Act.
2. No condition of this Permit releases the Permittees from any responsibility or requirements under other environmental statutes or regulations.

K. Oil and Hazardous Substance Liability Nothing in this Permit shall be constructed to preclude the institution of any legal action or relieve the Permittees from any responsibilities, liabilities, or penalties to which the Permittees is or may be subject under Section 311 of the CWA or Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA).

L. Severability The provisions of this Permit are severable, and if any provision of this permit, or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to the circumstances, and the remainder of this Permit shall not be affected thereby.

VII. Definitions and Acronyms

All definitions contained in Section 502 of the Act and 40 CFR Part 122 apply to this Permit and are incorporated herein by reference. For convenience, simplified explanations of some regulatory/statutory definitions have been provided but, in the event of a conflict, the definition found in the statute or regulation takes precedence.

“Administrator” means the Administrator of the EPA, or an authorized representative.

“Animal facility” see “commercial animal facility.”

“Annual Report” means the periodic self –assessment submitted by the Permittee(s) to document incremental progress towards meeting the storm water management requirements and implementation schedules as required by this Permit. See Part IV.C.

“Best Management Practices (BMPs)” means 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 runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. See 40 CFR § 122.2. BMP refers to operational activities, physical controls or educational measures that are applied to reduce the discharge of pollutants and minimize potential impacts upon receiving waters, and accordingly, refers to both structural and nonstructural practices that have direct impacts on the release, transport, or discharge of pollutants. See also “storm water control measure (SCM).”

“Bioretention” is the water quality and water quantity storm water management practice using the chemical, biological and physical properties of plants, microbes and soils for the removal of pollution from storm water runoff.

“Canopy Interception” is the interception of precipitation, by leaves and branches of trees and vegetation that does not reach the soil.

“CGP” and “Construction General Permit” means the current available version of EPA’s *NPDES General Permit for Storm Water Discharges for Construction Activities in Idaho*, Permit No. IDR12-0000. EPA’s CGP is posted on EPA’s website at www.epa.gov/npdes/stormwater/cgp.

“Commercial Animal Facility” as used in this Permit, means a business that boards, breeds, or grooms animals including but not limited to dogs, cats, rabbits or horses.

“Common Plan of Development” is a contiguous construction project or projects where multiple separate and distinct construction activities may be taking place at different times on different schedules but under one plan. The “plan” is broadly defined as any announcement or piece of documentation or physical demarcation indicating construction activities may occur on a specific plot; included in this definition are most subdivisions and industrial parks.

“Construction activity” includes, but is not limited to, clearing, grading, excavation, and other site preparation work related to the construction of residential buildings and non-residential buildings, and heavy construction (e.g., highways, streets, bridges, tunnels, pipelines, transmission lines and industrial non-building structures).

“Control Measure” as used in this Permit, refers to any action, activity, Best Management Practice or other method used to prevent or reduce the discharge of pollutants in stormwater to waters of the United States.

“CWA” or “The Act” means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub.L. 92-500, as amended by Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483 and Pub. L. 97-117, 33 U.S.C. 1251 et seq.

“Director” means the Environmental Protection Agency Regional Administrator, the EPA Director of the Office of Water and Watersheds, or an authorized representative.

“Discharge” when used without a qualifier, refers to “discharge of a pollutant” as defined at 40 CFR §122.2.

“Discharge of a pollutant” means (a) any addition of any “pollutant” or combination of pollutants to “waters of the United States” from any “point source,” or (b) any addition of any pollutant or combination of pollutants to the waters of the “contiguous zone” or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. This definition includes additions of pollutants into waters of the United States from: surface runoff which is collected or channelled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. This term does not include an addition of pollutants by any “indirect discharger.”

“Discharge of Storm Water Associated with Construction Activity” as used in this Permit, refers to a discharge of pollutants in storm water runoff from areas where soil disturbing activities (*e.g.*, clearing, grading, or excavation), construction materials or equipment storage or maintenance (*e.g.*, fill piles, borrow areas, concrete truck washout, fueling) or other industrial storm water directly related to the construction process are located, and which are required to be managed under an NPDES permit. See the regulatory definitions of storm water discharge associated with large and small construction activity at 40 CFR §122.26(b)(14)(x) and 40 CFR §122.26(b)(15), respectively

“Discharge of Storm Water Associated with Industrial Activity” as used in this Permit, refers to the discharge from any conveyance that is used for collecting and conveying storm water and that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant included in the regulatory definition of storm water discharge associated with industrial activity at 40 CFR §122.26(b)(14).

“Discharge-related Activities” include: activities which cause, contribute to, or result in storm water point source pollutant discharges and measures to control storm water discharges, including the siting, construction, and operation of best management practices to control, reduce or prevent storm water pollution.

“Disconnect” for the purposes of this permit, means the change from a direct discharge into receiving waters to one in which the discharged water flows across a vegetated surface, through a constructed water or wetlands feature, through a vegetated swale, or other attenuation or infiltration device before reaching the receiving water.

“Engineered Infiltration” is an underground device or system designed to accept storm water and slowly exfiltrates it into the underlying soil. This device or system is designed based on soil tests that define the infiltration rate.

“Erosion” means the process of carrying away soil particles by the action of water.

“Evaporation” means rainfall that is changed or converted into a vapor.

“Evapotranspiration” means the sum of evaporation and transpiration of water from the earth’s surface to the atmosphere. It includes evaporation of liquid or solid water plus the transpiration from plants.

“Extended Filtration” is a structural storm water device which filters storm water runoff through a soil media and collects it in an underdrain which slowly releases it after the storm is over.

“EPA” means the Environmental Protection Agency Regional Administrator, the EPA Director of the Office of Water and Watersheds, or an authorized representative.

“Entity” means a governmental body, or a public or private organization.

“Existing Permanent Controls,” in the context of this Permit, means post- construction or permanent storm water management controls designed to treat or control runoff on a permanent basis and that were installed prior to the effective date of this Permit.

“Facility or Activity” generally means any NPDES “point source” or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the NPDES program.

“Fish Tissue Sampling” see “Methylmercury Fish Tissue Sampling”

“Green infrastructure” means runoff management approaches and technologies that utilize, enhance and/or mimic the natural hydrologic cycle processes of infiltration, evapotranspiration and reuse.

“Hydromodification” means changes to the storm water runoff characteristics of a watershed caused by changes in land use.

“IDEQ” means the Idaho Department of Environmental Quality or its authorized representative.

“Illicit Connection” means any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.

“Illicit Discharge” is defined at 40 CFR §122.26(b)(2) and means any discharge to a municipal separate storm sewer that is not entirely composed of storm water, except discharges authorized under an NPDES permit (other than the NPDES Permit for discharges from the MS4) and discharges resulting from fire fighting activities.

“Impaired Water” (or “Water Quality Impaired Water”) for purposes of this Permit means any water body identified by the State of Idaho or EPA pursuant to Section 303(d) of the Clean Water Act as not meeting applicable State water quality standards. Impaired waters include both waters with approved or established Total Maximum Daily Loads (TMDLs), and those for which a TMDL has not yet been approved or established.

“Industrial Activity” as used in this Permit refers to the eleven categories of industrial activities included in the definition of discharges of “storm water associated with industrial activity” at 40 CFR §122.26(b)(14).

“Industrial Storm Water” as used in this Permit refers to storm water runoff associated with the definition of “discharges of storm water associated with industrial activity”.

“Infiltration” is the process by which storm water penetrates into soil.

“Low Impact Development” or “LID” means storm water management and land development techniques, controls and strategies applied at the parcel and subdivision scale that emphasize conservation and use of on-site natural features integrated with engineered, small scale hydrologic controls to more closely mimic pre-development hydrologic functions.

“Major outfall” is defined in 40 CFR §122.26(b)(5) and in general, means a municipal storm sewer outfall that discharges from a single pipe with an inside diameter of 36 inches or more.

“MEP” or "maximum extent practicable," means the technology-based discharge standard for municipal separate storm sewer systems to reduce pollutants in storm water discharges that was established by Section 402(p) of the Clean Water Act, 33 U.S.C §1342(p).

“Measurable Goal” means a quantitative measure of progress in implementing a component of a storm water management program.

“Methylmercury Fish Tissue Sampling” and “Methylmercury Fish Tissue Sampling Requirements” means the IDEQ-recommended cooperative data collection effort for the Lower Boise River Watershed. In particular, Methylmercury Fish Tissue Sampling requirements are otherwise specified in NPDES Permits # ID-002044-3 and ID-002398-1, as issued by EPA to the City of Boise and available online at <http://yosemite.epa.gov/r10/water.nsf/NPDES+Permits/Current+ID1319>

“Minimize” means to reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry or municipal practices.

“MS4” means "municipal separate storm sewer system," and is used to refer to either a Large, Medium, or Small Municipal Separate Storm Sewer System as defined in 40 CFR 122.26(b). The term, as used within the context of this Permit, refers to those portions of the municipal separate storm sewer systems within the corporate limits of the City of Boise and City of Garden City that are owned and/or operated by the Permittees, namely: Ada County Highway District, Boise State University, City of Boise, City of Garden City, Drainage District #3 and/or the Idaho Transportation Department District #3.

“Municipality” means a city, town, borough, county, parish, district, association, or other public body created by or under State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under Section 208 of the CWA.

“Municipal Separate Storm Sewer” is defined in 40 CFR §122.26(b) and means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to

State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under Section 208 of the CWA that discharges to waters of the United States; (ii) Designed or used for collecting or conveying storm water; (iii) Which is not a combined sewer; and (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR §122.2.

“National Pollutant Discharge Elimination System” or “NPDES” means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318 and 405 of the CWA. The term includes an ‘approved program.’

“New Permanent Controls,” in the context of this Permit, means post- construction or permanent storm water management controls designed to treat or control runoff on a permanent basis that are installed after the effective date of this permit.

“Outfall” is defined at 40 CFR §122.26(b)(9) means a point source (see definition below) at the point where a municipal separate storm sewer discharges to waters of the United States, and does not include open conveyances connecting two municipal separate storm sewers or pipes, tunnels, or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States.

“Owner or operator” means the owner or operator of any “facility or activity” subject to regulation under the NPDES program.

“Permanent storm water management controls” see “post-construction storm water management controls.”

“Permitting Authority” means the U.S. Environmental Protection Agency (EPA)

“Point Source” is defined at 40 CFR §122.2 and means 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, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

"Pollutant" is defined at 40 CFR §122.2. A partial listing from this definition includes: dredged spoil, solid waste, sewage, garbage, sewage sludge, chemical wastes, biological materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial or municipal waste.

“Pollutant(s) of concern” includes any pollutant identified by IDEQ as a cause of impairment of any water body that will receive a discharge from a MS4 authorized under this Permit. See Table II.C.

“Post- construction storm water management controls” or “permanent storm water management controls” means those controls designed to treat or control runoff on a permanent basis once construction is complete. See also “new permanent controls” and “existing permanent controls.”

“QA/QC” means quality assurance/quality control.

“QAP” means Quality Assurance Plan.

“Rainfall and Rainwater Harvesting” is the collection, conveyance, and storage of rainwater. The scope, method, technologies, system complexity, purpose, and end uses vary from rain barrels for garden irrigation in urban areas, to large-scale collection of rainwater for all domestic uses.

“Redevelopment” for the purposes of this Permit, means the alteration, renewal or restoration of any developed land or property that results in land disturbance of 5,000 square feet or more, and that has one of the following characteristics: land that currently has an existing structure, such as buildings or houses; or land that is currently covered with an impervious surface, such as a parking lot or roof; or land that is currently degraded and is covered with sand, gravel, stones, or other non-vegetative covering.

“Regional Administrator” means the Regional Administrator of Region 10 of the EPA, or the authorized representative of the Regional Administrator.

“Repair of Public Streets, Roads and Parking Lots” means repair work on Permittee-owned or Permittee-managed streets and parking lots that involves land disturbance, including asphalt removal or regrading of 5,000 square feet or more. This definition excludes the following activities: pot hole and square cut patching; overlaying existing asphalt or concrete paving with asphalt or concrete without expanding the area of coverage; shoulder grading; reshaping or regrading drainage ditches; crack or chip sealing; and vegetative maintenance.

“Runoff Reduction Techniques” means the collective assortment of storm water practices that reduce the volume of storm water from discharging off site.

“Storm Sewershed” means, for the purposes of this Permit, all the land area that is drained by a network of municipal separate storm sewer system conveyances to a single point of discharge into a water of the United States.

“Significant contributors of pollutants” means any discharge that causes or could cause or contribute to a violation of surface water quality standards.

“Small Construction Activity” – is defined at 40 CFR §122.26(b)(15) and incorporated here by reference. A small construction activity includes clearing, grading, and excavating resulting in a land disturbance that will disturb equal to or greater than one (1) acre and less than five (5) acres of land or will disturb less than one (1) acre of total land area but is part of a larger common plan of development or sale that will ultimately disturb equal to or greater than one (1) acre and less than five (5) acres. Small construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site.

“Snow management” means the plowing, relocation and collection of snow.

“Soil amendments” are components added to in situ or native soils to increase the spacing between soil particles so that the soil can absorb and hold more moisture. The amendment of soils changes

various other physical, chemical and biological characteristics so that the soils become more effective in maintaining water quality.

“Source control” storm water management means practices that control storm water *before* pollutants have been introduced into storm water

“Storm event” or “measurable storm event” for the purposes of this Permit means a precipitation event that results in an actual discharge from the outfall and which follows the preceding measurable storm event by at least 48 hours (2 days).

“Storm water” and “storm water runoff” as used in this Permit means storm water runoff, snow melt runoff, and surface runoff and drainage, and is defined at 40 CFR §122.26(b)(13). “Storm water” means that portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, channels, or pipes into a defined surface water channel or a constructed infiltration facility.

“Storm Water Control Measure” (SCM) or “storm water control device,” means physical, structural, and/or managerial measures that, when used singly or in combination, reduce the downstream quality and quantity impacts of storm water. Also, SCM means a permit condition used in place of or in conjunction with effluent limitations to prevent or control the discharge of pollutants. This may include a schedule of activities, prohibition of practices, maintenance procedures, or other management practices. SCMs may include, but are not limited to, treatment requirements; operating procedures; practices to control plant site runoff, spillage, leaks, sludge, or waste disposal; or drainage from raw material storage. See “best management practices (BMPs).”

“Storm Water Facility” means a constructed component of a storm water drainage system, designed or constructed to perform a particular function or multiple functions. Storm water facilities include, but are not limited to, pipes, swales, ditches, culverts, street gutters, detention basins, retention basins, constructed wetlands, infiltration devices, catch basins, oil/water separators, sediment basins, and modular pavement.

“Storm Water Management Practice” or “Storm Water Management Control” means practices that manage storm water, including structural and vegetative components of a storm water system.

“Storm Water Management Project” means a project that takes into account the effects on the water quality of the receiving waters and whether a structural storm water control device can be retrofitted to control water quality.

“Storm Water Management Program (SWMP)” refers to a comprehensive program to manage the quality of storm water discharged from the municipal separate storm sewer system. For the purposes of this Permit, the SWMP consists of the actions and activities conducted by the Permittees as required by this Permit and described in the Permittees’ SWMP documentation. A “SWMP document” is the written summary describing the unique and/or cooperative means by which an individual Permittee or entity implements the specific storm water management controls Permittee within their jurisdiction.

“Storm Water Pollution Prevention Plan (SWPPP)” means a site specific plan designed to describe the control of soil, raw materials, or other substances to prevent pollutants in storm water runoff; a SWPPP is generally developed for a construction site, or an industrial facility. For the purposes of this permit, a SWPPP means a written document that identifies potential sources of pollution, describes practices to reduce pollutants in storm water discharges from the site, and identifies procedures or controls that the operator will implement to reduce impacts to water quality and comply with applicable Permit requirements.

“Structural flood control device” means a device designed and installed for the purpose of storm drainage during storm events.

”Subwatershed” for the purposes of this Permit means a smaller geographic section of a larger watershed unit with a drainage area between 2 to 15 square miles and whose boundaries include all the land area draining to a point where two second order streams combine to form a third order stream. A subwatershed may be located entirely within the same political jurisdiction.

“TMDL” means Total Maximum Daily Load, an analysis of pollutant loading to a body of water detailing the sum of the individual waste load allocations for point sources and load allocations for non-point sources and natural background. See 40 CFR §130.2.

“Treatment control” storm water management means practices that ‘treat’ storm water after pollutants have been incorporated into the storm water.

“Urban Agriculture” and “Urban Agricultural Activities” means the growing, processing, and distribution of food and other products through intensive plant cultivation and animal husbandry in and around cities. For the purposes of this Permit, the term includes activities allowed and/or acknowledged by the Permittees through a local comprehensive plan ordinance, or other regulatory mechanism. For example, see: *Blueprint Boise* online at http://www.cityofboise.org/BluePrintBoise/pdf/Blueprint%20Boise/0_Blueprint_All.pdf, and/or *City of Boise Urban Agriculture ordinance amendment, ZOA11-00006*.

“Waters of the United States,” as defined in 40 CFR 122.2, means:

1. All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters, including interstate "wetlands";
3. All other waters such as interstate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:
 - a. Which are or could be used by interstate or foreign travelers for recreational or other purposes;
 - b. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

- c. Which are used or could be used for industrial purposes by industries in interstate commerce;
4. All impoundments of waters otherwise defined as waters of the United States under this definition;
5. Tributaries of waters identified in paragraphs 1 through 4 of this definition;
6. The territorial sea; and
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs 1 through 6 of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA (other than cooling ponds for steam electric generation stations per 40 CFR Part 423) which also meet the criteria of this definition are not waters of the United States. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

“Watershed” is defined as all the land area that is drained by a waterbody and its tributaries.

“Wetlands” means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

ATTACHMENT 2

United States Environmental Protection Agency
Region 10
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101

Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems

**Authorization to Discharge Under the
National Pollutant Discharge Elimination System**

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §1251 *et seq.*, as amended by the Water Quality Act of 1987, P.L. 100-4, the "Act," the

**Joint Base Lewis-McChord
(hereinafter "Permittee")**

is authorized to discharge from all municipal separate storm sewer system (MS4) outfalls existing as of the effective date of this permit to waters of the United States, including Murray Creek, Clover Creek, Puget Sound and other associated waters of the United States, in accordance with the conditions and requirements set forth herein. In addition, pursuant to Ecology's certification and CWA Section 401(d), 33 U.S.C. § 1341(d), this permit also authorizes discharges from the MS4 to groundwater of the State of Washington.

This permit shall become effective on October 1, 2013.

This permit and the authorization to discharge shall expire at midnight, September 30, 2018.

The Permittee must reapply for permit reissuance on or before April 3, 2018, 180 days before the expiration of this permit if the Permittee intends to continue operations and discharges from the MS4 beyond the term of this permit.

Signed this 22nd day of August, 2013



Paula VanHaagen, Acting Director
Office of Water and Watersheds

Table of Contents

- I. Applicability..... 4**
 - A. Permit Area..... 4
 - B. Discharges Authorized Under This Permit.....4
 - C. Limitations on Permit Coverage 4
- II. Stormwater Management Program (SWMP) Requirements 5**
 - A. General Requirements..... 5
 - B. Minimum Control Measures. 8
 - C. Retrofits to Reduce Discharges to Impaired/Degraded Receiving Waters. 24
 - D. Required Response to Violations of Water Quality Standards. 25
 - E. Reviewing and Updating the SWMP 27
 - F. Transfer of Ownership, Authority, or Responsibility for SWMP Implementation..... 28
 - G. SWMP Resources..... 28
- III. Schedule for Implementation and Compliance 29**
- IV. Monitoring, Recordkeeping, and Reporting Requirements 32**
 - A. Monitoring..... 32
 - B. Recordkeeping..... 36
 - C. Reporting Requirements..... 37
 - D. Addresses. 39
- V. Compliance Responsibilities 39**
 - A. Duty to Comply..... 39
 - B. Penalties for Violations of Permit Conditions..... 39
 - C. Need to Halt or Reduce Activity not a Defense. 41
 - D. Duty to Mitigate.. 41
 - E. Proper Operation and Maintenance..... 41
 - F. Bypass of Treatment Facilities..... 41
 - G. Upset Conditions..... 42
 - H. Toxic Pollutants.. 42
 - I. Planned Changes. 42
 - J. Anticipated Noncompliance..... 43
 - K. Twenty-Four Hour Reporting..... 43
 - L. Other Noncompliance. 44
- VI. General Provisions 44**
 - A. Permit Actions..... 44
 - B. Duty to Reapply 44
 - C. Duty to Provide Information. 44

D. Other Information..... 44

E. Signatory Requirements.. 44

F. Availability of Reports. 45

G. Inspection and Entry. 46

H. Property Rights..... 46

I. Transfers..... 46

J. State/Tribal Environmental Laws..... 46

K. Oil and Hazardous Substance Liability..... 46

L. Severability.. 46

VII. Definitions and Acronyms 47

Appendix A - Street Waste Disposal.....60

Appendix B - Runoff Treatment Requirements for New Development and Redevelopment Sites..... 62

Appendix C -Exemptions from the New Development and Redevelopment Requirements of Part II.B.5.....66

Appendix D -Vicinity Map of JBLM Permit Area.....69

I. Applicability

A. Permit Area. This permit covers all geographic areas of the military installation located within Pierce and Thurston Counties, Washington, which are owned or operated by the Joint Base Lewis-McChord (JBLM), hereafter also referred to as “Permittee.” The Permit Area includes but is not limited to the cantonment areas (comprised of and referred to as JBLM-Main, JBLM-North, and/or JBLM-McChord Field) and all military training areas. See Appendix D.

B. Discharges Authorized Under This Permit. During the effective dates of this permit, the Permittee is authorized to discharge stormwater to waters of the United States and to groundwater of the State of Washington from all portions its municipal separate storm sewer system (MS4) located within the boundaries the Permit Area described in Part I.A, subject to the conditions set forth herein. This permit also authorizes the discharge of flows categorized as allowable non-stormwater discharges in Part I.C.1.d of this permit.

C. Limitations on Permit Coverage

1. **Non-Stormwater Discharges.** The Permittee is authorized to discharge non-stormwater from the MS4, only where such discharges satisfy one of the following conditions:
 - a) The non-stormwater discharges are in compliance with a separate NPDES permit;
 - b) The discharges originate from emergency fire fighting activities;
 - c) The non-stormwater discharges result from a spill and:
 - are the result of an unusual and severe weather event where reasonable and prudent measures have been taken to minimize the impact of such discharge; or
 - consist of emergency discharges required to prevent imminent threat to human health or severe property damage, provided that reasonable and prudent measures have been taken to minimize the impact of such discharges;
 - or
 - d) The non-stormwater discharges consist of one or more flows listed below, and such flows are managed by the Permittee in accordance with Parts II.B.3.c and II.B.6 of this permit.
 - potable water sources, including but not limited to, water line flushing, hyperchlorinated water line flushing, fire hydrant flushing, and pipeline hydrostatic test water;
 - Landscape watering and other irrigation runoff;

- Dechlorinated swimming pool, spa, and hot tub discharges;
 - Street and sidewalk wash water, water used to control dust, and routine external building wash down that does not use detergents;
 - Diverted stream flows;
 - Rising ground waters;
 - Uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20));
 - Uncontaminated pumped ground water;
 - Foundation drains;
 - Air conditioning condensation;
 - Irrigation water from agricultural sources that is commingled with urban stormwater;
 - Springs;
 - Uncontaminated water from crawl space pumps;
 - Footing drains; and/or
 - Flows from riparian habitats and wetlands.
2. **Discharges Threatening Water Quality.** The Permittee is not authorized to discharge stormwater that will cause, or have the reasonable potential to cause or contribute to an exceedance above the State of Washington water quality standards [including, but not limited to, those standards contained in Chapters 173-201A (surface water quality), 173-204 (sediment management) and 173-200 (groundwater) of the Washington Administrative Code]. The required response to such exceedances of these standards is defined in Part II.D.
3. **Snow Disposal to Receiving Waters.** The Permittee is not authorized to dispose of snow directly to waters of the United States or directly to the MS4(s). Discharges from Permittee-owned or operated snow disposal sites, and the Permittee's snow management practices, are authorized under this permit when such sites/practices are operated using Best Management Practices (BMPs) as required in Part II.B.6. Such BMPs must be designed to prevent pollutants in the runoff and prevent violations of the applicable water quality standards.
4. **Stormwater Discharges Associated with Industrial and Construction Activity.** The Permittee is authorized to discharge stormwater associated with industrial and construction activity through the MS4, only when such discharges are otherwise authorized under an appropriate NPDES permit.

II. Stormwater Management Program (SWMP) Requirements

A. General Requirements

1. **Implement a SWMP.** The Permittee must develop, implement and enforce a Stormwater Management Program (SWMP) designed to reduce the discharge of pollutants from the MS4 to the maximum extent practicable, and protect water

quality in receiving waters. The SWMP must be implemented throughout the permit area described in Part I.A.

- 2. Control Discharges of Pollutants from the MS4 to the Maximum Extent Practicable.** The Permittee must comply with the SWMP actions and activities outlined in Parts II.B and II.C, the required response provisions of Part II.D, and the assessment/monitoring requirements described in Part IV. The SWMP actions and activities require the Permittee to use BMPs, control measures, system design, engineering methods, and other provisions appropriate to control discharges of pollutants from the MS4 to the maximum extent practicable.
- 3. SWMP Document.** The Permittee must prepare written documentation of its SWMP within one year from the effective date of this permit. The SWMP documentation must be organized according to the program components in Parts II.B and II.C, and the assessment/monitoring requirements of Part IV. The SWMP document must be updated at least annually and submitted as part of the Permittee's Annual Report. The SWMP document must include:

 - a) A summary of the legal authorities which enable the Permittee to control discharges to and from the Permittee's MS4 as required by this Permit;
 - b) A description of each minimum program control measure in Parts II.B and II.C;
 - c) Any additional actions implemented by the Permittee pursuant to Parts II.B and II.C; and
 - d) A description of the monitoring activity pursuant to Part IV.
- 4. SWMP Information.** The Permittee's SWMP must include an on-going means for gathering, tracking, maintaining, and using information in order to evaluate SWMP development and implementation, permit compliance, and to set priorities.

 - a) No later than one year from permit effective date, the Permittee must track the cost, or estimated cost, to develop and implement each program component of the SWMP. A summary of costs and funding sources, by program component, must be included in each Annual Report.
 - b) The Permittee must track the number of inspections, official enforcement actions, types of public education activities, etc., as stipulated by the respective program component. Information summarizing these activities during the previous reporting period must be included in the Annual Report(s).
- 5. SWMP Modification.** Modifications to the SWMP requirements must be made in accordance with Part II.E of this permit.
- 6. Shared Implementation.** Implementation of one or more of the minimum control measures may be shared with, or delegated to, another entity other than the Permittee. The Permittee may rely on another entity only if:

 - a) The other entity, in fact, implements the control measure;

- b) The control measure, or component of that control measure, is at least as stringent as the corresponding permit requirement; and
- c) The other entity agrees to implement the control measure on the Permittee's behalf. A binding written acceptance of this obligation is required. The Permittee must maintain this written obligation as part of the SWMP. If the other entity agrees to report on the minimum control measure, the Permittee must supply the other entity with the reporting requirements in Part IV.C of this permit. The Permittee remains responsible for compliance with the permit obligations if the other entity fails to implement the control measure

7. Equivalent Documents, Plans or Programs.

The Permittee may submit to EPA any existing documents, plans, or programs existing prior to the effective date of this Permit which the Permittee deems to fulfill a required SWMP minimum control measure or component as specified by this Permit. Such pre-existing documents, plans or programs must be individually submitted to EPA pursuant to Part IV.D for review and approval at least six months prior to the compliance date of the required SWMP minimum control measure. Where EPA determines, in writing, that the Permittee's pre-existing document, plan or program complies with the required SWMP minimum control measure, the Permittee is not required to develop of a separate SWMP document, plan or program for that control measure. A copy of EPA's written approval of each equivalent document, plan or program must be maintained within the SWMP document required in Part II.A.3 and referenced in subsequent Annual Reports. The Permittee must submit to EPA as specified in Part IV.D the following documentation with each individual request for review:

- a) A complete copy of the relevant document, plan or program, (or applicable section of such documentation, provided the Permittee provides the full citation of the source material); and
- b) A detailed written overview identifying the required SWMP program component addressed by the submittal, and the reasons, citations and references sufficient to demonstrate that the submitted material meets or exceeds the required SWMP program component.

B. Minimum Control Measures. The following minimum control measures must be accomplished through the Permittee's Stormwater Management Program:

1. Education and Outreach on Stormwater Impacts.

- a) Within two years of the effective date of this permit, the Permittee must develop, implement, and evaluate an on-going program to educate targeted audiences about the adverse impacts of stormwater discharges on local water bodies and the steps that they can take to reduce pollutants in stormwater runoff. The Permittee must target its education and outreach program activities to reach the following audiences as appropriate:
 - project managers;
 - contractors;
 - tenants;
 - environmental staff; and
 - business owners and operators.
- b) The primary goal of the education and outreach program is to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts. Using the topics listed in Part II. B.1.c, the Permittee may develop a prioritized schedule and plan to reach the target audiences through the on-going education effort.
- c) The Permittee must select from the following topics to affect behavior change through its education and outreach program:
 - Proper use, storage and disposal of household hazardous waste;
 - Proper recycling;
 - Appropriate stormwater management practices for commercial, food service, and automotive activities, including carpet cleaners, home-based or mobile businesses;
 - Appropriate yard care techniques for protecting water quality, including proper timing and use of fertilizers;
 - Proper pet waste management;
 - Appropriate spill prevention practices;
 - Proper management of street, parking lot, sidewalk, and building wash water;
 - Proper methods for using water for dust control;
 - Proper design and use of Low Impact Development (LID) techniques at new development and redevelopment sites; and

- Impacts of illicit discharges and how to report them.
- d) Beginning two years from the effective date of this permit, the Permittee must measure and document the understanding and adoption of the targeted behavior[s] for at least one audience in at least one subject area listed above. The resulting measurements must be used to direct education and outreach resources most effectively through the remainder of the Permit term, The Permittee must evaluate and summarize resulting changes in adoption of the targeted behavior(s). The Permittee may meet this requirement individually or through cooperation with other entities.
- e) The Permittee must document the specific education program goals, and track and maintain records of public education and outreach activities in the SWMP document.

2. Public Involvement/Participation.

- a) The Permittee must comply with applicable federal, state and local public notice requirements when implementing a public involvement/participation program.
- b) Within six months of the effective date of this permit, and at a regular schedule at least annually thereafter, the Permittee must conduct at least one of the following activities within the permit area throughout the permit term:
- Convene meeting(s) with the Environmental Division Chief & Environmental Compliance Program Manager, and/or other JBLM organizations as appropriate, to discuss and coordinate effective SWMP implementation, or
 - Convene a JBLM Water Council or organize other means to provide opportunity for the military community to participate in development and implementation of SWMP activities.
- c) No later than one year from the permit effective date, and annually thereafter, the Permittee must make the updated SWMP document required by Part II.A.3 available to the public on the Permittee’s website.
- d) At least once per year, the Permittee must provide one or more on-going volunteer activities as practicable to help actively engage residents and personnel at JBLM in understanding water resources and how their activities can affect water quality. In the SWMP document, the Permittee must maintain a log of public participation activities performed.
- Volunteer activities may include, but are not limited to, storm drain stenciling or marking program; establishing a website, email address and/or hotline for citizens to report pollution concerns; establishing a pet waste management program at American Lake or other resource areas.

3. Illicit Discharge Detection and Elimination (IDDE).

An illicit discharge is any discharge to a MS4 that is not composed entirely of stormwater as defined in 40 CFR § 122.26(b)(2). The Permittee's SWMP must include an on-going program to detect and remove illicit connections and discharges into the MS4. The Permittee must include a written description of the program in the SWMP document. No later than 180 days prior to the expiration date of this permit, the Permittee must implement an IDDE program which fully addresses each of the following components:

- a) **Map of Cantonment Areas.** Within two years from the effective date of this permit, the Permittee must update and maintain a map of the MS4 located within the JBLM cantonment area. At a minimum, the cantonment area map must be periodically updated and include the following information:
 - jurisdictional boundaries;
 - known MS4 outfalls,
 - receiving waters, other than groundwater;
 - Tributary conveyances for all known MS4 outfalls. The following attributes must be mapped for all known outfalls:
 - (i) tributary conveyances (type, material and size where known);
 - (ii) associated drainage areas; and
 - (iii) land use;
 - Stormwater treatment and flow control BMPs/facilities owned, or operated, by the Permittee, including information about type, and design capacity.
 - Geographic areas served by the Permittee's MS4 that do not discharge stormwater to surface waters;
 - Points at which the Permittee's MS4 is interconnected with other MS4s or other storm/surface water conveyances; and
 - Locations of all Permittee owned or operated industrial facilities, maintenance/storage facilities and snow disposal sites that discharge directly to the Permittee's MS4, and/or waters of the State.

The Permittee must maintain updated cantonment area MS4 maps. As necessary the Permittee must add data regarding any new connections to the MS4 which are allowed by the Permittee after the effective date of this permit. A copy of the completed MS4 map, as both a report and as an electronic file via Arc GIS compatible format, must be submitted to EPA upon request and as part of the Permit renewal application required in Part IV.B.

Consistent with national security laws and directives, the Permittee must provide mapping information to operators of adjacent regulated MS4s upon request.

- b) **Map of Training Areas.** No later than 180 days prior to the expiration date of this permit, the Permittee must develop and submit to EPA a preliminary map identifying the presence of MS4 infrastructure located outside the cantonment area. The Permittee must prioritize the development of a training area MS4 map within the Muck Creek watershed/basin. The map must include the information items listed in Part II.B.3.a. A copy of the preliminary map, as both a report and as an electronic file via Arc GIS compatible format, must be submitted to EPA as part of the permit renewal application required in Part IV.B.
- c) **Ordinance.** The Permittee must effectively prohibit, through ordinance or other regulatory mechanism, all illicit discharges into the MS4 to the maximum extent allowable under the legal authorities of JBLM. The ordinance or regulatory mechanism must be adopted, or existing mechanism amended, to comply with this Permit no later than thirty months from the effective date of this Permit.

The Permittee must implement appropriate enforcement procedures and actions associated with the ordinance or regulatory mechanism, including a written policy of enforcement escalation procedures for recalcitrant or repeat offenders.

Allowable Discharges: The regulatory mechanism does not need to prohibit the following categories of non-stormwater discharges, consistent with Part I.C.1.d:

- Diverted stream flows;
- Rising ground waters;
- Uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20));
- Uncontaminated pumped ground water;
- Foundation drains;
- Air conditioning condensation;
- Irrigation water from agricultural sources that is commingled with urban stormwater;
- Springs;
- Uncontaminated water from crawl space pumps
- Footing drains;
- Flows from riparian habitats and wetlands;
- Non-stormwater discharges covered by another NPDES permit; and/or
- Discharges from emergency fire fighting activities in accordance with Part 1.C.b.

Conditionally Allowable Discharges: The regulatory mechanism may allow the following categories of non-stormwater discharges, only if the stated conditions are met:

- *Discharges from potable water sources, including but not limited to water line flushing, hyperchlorinated water line flushing, fire hydrant*

system flushing, and pipeline hydrostatic test water: Planned discharges must be dechlorinated to a total residual chlorine concentration of 0.1 parts per million (ppm) or less, pH-adjusted, if necessary, and volumetrically and velocity controlled to prevent resuspension of sediments in the MS4.

- *Discharges from lawn watering and other irrigation runoff:* These discharges must be minimized through, at a minimum, public education activities (see Part II.B.2.a) and water conservation efforts.
- *Dechlorinated swimming pool, spa, and hot tub discharges:* The discharges must be dechlorinated to a total residual chlorine concentration of 0.1 ppm or less, pH-adjusted and reoxygenated if necessary, and volumetrically and velocity controlled to prevent re-suspension of sediments in the MS4. Discharges must be thermally controlled to prevent an increase in temperature of the receiving waters. Swimming pool cleaning wastewater and filter backwash must not be discharged to the MS4.
- *Street and sidewalk wash water, water used to control dust, and routine external building wash down that does not use detergents:* The Permittee must reduce these discharges through, at a minimum, public education activities (see Part II.B.2.a) and/or water conservation efforts. To avoid washing pollutants into the MS4, the Permittee must minimize the amount of street wash and dust control water used. At active construction sites, street sweeping must be performed prior to washing the street.
- *Other non-stormwater discharges.* The discharges must be in compliance with the requirements of a pollution prevention plan reviewed by the Permittee which addresses control of such discharges.

d) **Detection and Elimination.** No later than thirty months from the effective date of this permit, the Permittee must develop and implement an on-going program to detect and address non-stormwater discharges, spills, and illicit connections into their MS4. This program must be described within the SWMP document and include:

- *Procedures for locating priority areas likely to have illicit discharges,* including areas where complaints have been recorded in the past, and areas with storage of large quantities of materials that could result in spills;
- *Field assessment activities,* including visual inspection of outfalls draining priority areas during dry weather and for the purposes of verifying outfall locations, identifying previously unknown outfalls, and detecting illicit discharges. The dry weather screening activities

may include field tests of parameters selected by the Permittee as being indicators of discharge sources. The Permittee may utilize less expensive "field test kits," and test methods not approved by EPA under 40 CFR Part 136, provided the manufacturer's published detection ranges are adequate for the illicit discharge detection purposes;

- i) No later than thirty months from the effective date of this permit, the Permittee must begin dry weather field screening for non-stormwater flows from stormwater outfalls.
 - ii) No later than 180 days prior to the permit expiration date, the Permittee must complete field screening of at least 75% of all MS4 outfalls located within the cantonment area;
 - iii) Screening for illicit connections may be conducted in accordance with *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments*, Center for Watershed Protection, October 2004, or another methodology of comparable effectiveness;
- *Procedures for characterizing the nature of, and potential public or environmental threat posed by, any illicit discharges which are found by or reported to the Permittee.* Procedures must address the evaluation of whether the discharge must be immediately contained and steps to be taken for containment of the discharge;
 - i) Compliance with this provision will be achieved by immediately responding to all illicit discharges including spills which are determined to be constitute a threat to human health or the environment; investigating (or referring to the appropriate agency), within seven (7) days, any complaints, reports or monitoring information that indicates a potential illicit discharge, including spills; and immediately investigating (or referring) problems and violations determined to be emergencies or otherwise judged to be urgent or severe;
 - *Procedures for tracing the source of an illicit discharge;* including visual inspections, and when necessary, opening manholes, using mobile cameras, collecting and analyzing water samples, and/or other detailed inspection procedures; and
 - *Procedures for eliminating the discharge;* including notification of appropriate authorities; notification of the responsible operator or organization; technical assistance; follow-up inspections; and escalating enforcement and legal actions if the discharge is not eliminated.
 - i) Compliance with this provision will be achieved by initiating an investigation within twenty one (21) days of a report or discovery of a

suspected illicit connection to determine the source of the connection, the nature and volume of discharge through the connection, and the party responsible for the connection. Upon confirmation of the illicit nature of a storm drain connection, the Permittee must take action in a documented effort to eliminate the illicit connection within forty five (45) days.

- e) **Tracking.** The Permittee must implement a means of program evaluation and assessment which tracks the number and type of illicit discharges identified, dry weather screening efforts, and the location and any remediation efforts to address identified illicit discharges.
 - f) **Education.** Within two years from the effective date of this permit, the Permittee must inform employees, businesses, and the general public within the permit area of hazards associated with illegal discharges and improper disposal of waste. This program must be conducted in concert with the public education requirements outlined in Part II.B.1.
 - No later than one year from the effective date of this permit, the Permittee must list and publicize a hotline or other local means for the public and JBLM personnel to report spills and other illicit discharges. The Permittee must maintain a record of calls received and follow-up actions taken in accordance with II.B.3.d above and include a summary in the Annual Report.
 - g) **Training.** Within two years of the effective date of this permit, the Permittee must ensure that all staff responsible for the identification, investigation, termination, clean up and reporting of illicit discharges, including spills and illicit connections, are trained to conduct these activities. Follow-up training must be provided as necessary to address changes in procedures, techniques or requirements. The Permittee must maintain records of relevant training provided or obtained, and the staff members trained. A summary of this training must be included in each Annual Report.
- 4. Construction Site Stormwater Runoff Control.** Throughout the permit area, the Permittee must implement and enforce a program to reduce pollutants in stormwater runoff to the MS4 from construction activities resulting in land disturbance of greater than or equal to 5,000 square feet or more. The Permittee must include a written description of the construction site runoff control program in the SWMP document. At a minimum the program must include the following components:
- a) **Oversight.** The Permittee must provide adequate direction and oversight to ensure that entities responsible for regulated construction activities within the permit area obtain authorization to discharge as necessary under the NPDES General Permit for Stormwater Discharges for Construction Activity for Federal Facilities in Washington, Permit #WAR12000F (Construction General Permit or CGP).

- b) **Ordinance.** The Permittee must use an ordinance or other regulatory mechanism available under the legal authorities of JBLM to require erosion and sediment controls, onsite materials management and sanctions to ensure compliance with the terms of the SWMP and the CGP.
- c) **Enforcement.** The Permittee must maintain a list of policies and procedures which can be used to enforce construction site compliance within JBLM independent of EPA staff directly enforcing the CGP. No later than two years from the effective date of this permit, the Permittee must include this list of policies and procedures in the SWMP document, and must update the list as necessary at least annually. The Permittee must summarize in each Annual Report any enforcement actions taken at construction sites during the previous reporting period.
- d) **Construction Site BMPs.** The Permittee must maintain (or incorporate by reference) a list of appropriate construction site BMPs in the SWMP document; such a list must include associated criteria for maintenance and installation of each specific practice.
- e) **Contractual Language.** The Permittee must work with other responsible organizations to ensure that all Requests For Proposal (RFPs) and construction contracts for new construction projects which will disturb 5,000 square feet or more within the permit area include specifications requiring compliance with the SWMP and, when applicable, the CGP. An example of such contract language must be included within the SWMP document.
- f) **Pre-construction Site Plan Review.** The Permittee must implement procedures for reviewing all pre-construction site plans for potential water quality impacts, appropriate erosion and sediment controls, and appropriate control of other construction site materials. These procedures must include provisions for receipt and consideration of information submitted by the public. Information summarizing the number of site plans reviewed during the previous reporting period must be submitted as part of the corresponding Annual Report.
- g) **Construction Site Inspection Plan.** Within six months of the permit effective date, the Permittee must develop and implement a construction site inspection plan. The construction site inspection plan must describe the criteria which triggers a site inspection, and must include a mandatory timeframe within which construction sites meeting the criteria will be inspected by the Permittee's staff or its representatives.
- The Permittee must develop methods for its staff or representatives to stop work on construction sites deemed to be in non-compliance with the construction site runoff control program.
 - The Permittee must develop and utilize a construction site inspection form to document all construction site inspections.
 - The written construction site inspection plan, and associated inspection form, must be included in the SWMP document.

- Information summarizing the site inspections conducted by the Permittee during the previous reporting period, including the location and total number of such inspections, must be submitted as part of the corresponding Annual Report.
- At a minimum, all sites addressed by plan must be inspected by the Permittee or their representatives at least quarterly.

h) **Training.** Throughout the permit term, the Permittee must ensure that all staff responsible for preconstruction site plan review, construction site inspections (or are otherwise implementing the construction site runoff control program) are adequately trained to conduct such activities. Follow-up training must be provided as necessary to address changes in procedures, techniques or requirements. The Permittee must maintain records of relevant training provided or obtained, and the staff members trained. A summary of this training occurring within the reporting period must be included in each Annual Report.

5. Stormwater Management for Areas of New Development and Redevelopment. Not later than one year from the effective date of this permit, the Permittee must implement a program to manage stormwater from developed areas in a manner that preserves and restores the area's predevelopment hydrology. The Permittee must use an ordinance (or other regulatory mechanism available under the legal authorities available to JBLM) to implement and enforce a program to control stormwater runoff from all public and private new development or redevelopment project sites that will disturb 5,000 square feet or more of land area.

The Permittee must include a written description of the program within the SWMP document. In each Annual Report, the Permittee must summarize the implementation status of these requirements for all new development and redevelopment project sites occurring during the relevant reporting period.

Certain projects may be exempt from specific provisions of this Part, as defined in Appendix C.

At a minimum, within one year of the permit effective date, the Permittee must implement the following program components as described in Part II.B.5.a through k.

- a) **Site Planning Procedures.** For all new development and redevelopment project sites disturbing 5,000 square feet or more, the Permittee must adopt and implement a project site planning process, including criteria for BMP selection and design; the site planning procedures must be implemented to protect water quality, and reduce the discharge of pollutants to the maximum extent practicable.
- b) **Preparation of a Stormwater Site Plan.** For all new development and redevelopment project sites disturbing 5,000 square feet or more, the Permittee must require a project-specific Stormwater Site Plan. Stormwater Site Plans must be prepared consistent with Chapter 3, Volume 1-*Minimum Technical*

Requirements and Site Planning of the 2012 Stormwater Management Manual for Western Washington; and with Chapter 3 of the Low Impact Development Technical Guidance Manual for the Puget Sound (2012). For new development or redevelopment sites disturbing 5,000 square feet or more within Airport Operations Areas (AOA), stormwater site plans must be prepared consistent with the Aviation Stormwater Design Manual (2008).

- c) **Source Control of Pollution.** The Permittee must require the use of available and reasonable source control BMPs at all new development and redevelopment project sites disturbing 5,000 square feet or more. Source control BMPs must be selected, designed, and maintained in accordance with Volume IV-*Source Control BMPs of the 2012 Stormwater Management Manual for Western Washington.*) For new development or redevelopment sites disturbing 5,000 square feet or more within Airport Operations Areas (AOA), source control BMPs must be selected, designed and maintained in accordance with the *Aviation Stormwater Design Manual (2008).*
- d) **New Development and Redevelopment Site Design to Minimize Impervious Areas, Preserve Vegetation, and Preserve Natural Drainage Systems.** For all new development and redevelopment project sites disturbing 5,000 square feet or more, the Permittee must ensure such projects are designed to minimize impervious surfaces, retain vegetation, restore native vegetation, and preserve natural drainage systems, to the maximum extent feasible.
- The Permittee must require site design that minimizes the project's roadway surfaces and parking areas, incorporates clustered development, and ensures that vegetated areas are designed to receive stormwater dispersion from all developed project areas.
 - To the maximum extent feasible, the Permittee must ensure that natural drainage patterns of the project site are maintained, and that discharge from the new development or redevelopment project site occurs at the natural location.
 - The Permittee must ensure that the manner by which runoff is discharged from the new development project site does not cause a significant adverse impact to downstream receiving waters and/or down gradient properties.
 - The Permittee must ensure that all outfalls utilize dissipation devices.
- e) **Hydrologic Performance Requirement for On-site Stormwater Management.** For all new development or redevelopment project sites disturbing 5,000 square feet or more, the Permittee must require the use of on-site stormwater management practices intended to infiltrate, disperse, retain, and/or harvest and reuse stormwater runoff to the maximum extent technically feasible.
- *For lawn and landscape areas on the new development or redevelopment project site, the Permittee must ensure the soil quality*

meets the specifications within BMP T5.13 (Post-Construction Soil Quality and Depth) in Chapter 5 of Volume V-*Runoff Treatment BMPs* of the 2012 *Stormwater Management Manual for Western Washington (2012)*. Lawn and landscape areas associated with project sites occurring within Airport Operations Areas must ensure the soil quality meets specifications of source control BMPs must be selected, designed and maintained in accordance with the *Aviation Stormwater Design Manual (2008)*.

- *For new or redevelopment project sites creating or replacing 2,000 \geq 4,999 square feet of hard surfaces*, the Permittee must ensure that stormwater dispersion or infiltration BMPs are used consistent with those specified in the 2012 *Stormwater Management Manual for Western Washington* and/or the *Low Impact Development Technical Guidance Manual for the Puget Sound (2012)*. Such project sites within Airport Operations Areas must ensure that stormwater dispersion or infiltration BMPs are used consistent with those specified in the *Aviation Stormwater Design Manual (2008)*.
- *For new development or redevelopment project sites creating or replacing 5,000 square feet or more of hard surfaces*, the Permittee must ensure stormwater controls are designed to retain on-site the volume of stormwater produced from the 95th percentile rainfall event.

As an alternative, the Permittee may instead comply with this requirement to manage stormwater runoff from new or replaced hard surfaces \geq 5,000 square feet by ensuring the post-development stormwater discharge flows from the project site do not exceed the pre-development discharge flows for the range of 8% of the 2-year peak flow to 50% of the 2-year peak flow, as calculated by using the Western Washington Hydrology Model (or other continuous runoff model).

- For the purposes of this permit, the modeled pre-development condition for all new development and redevelopment project sites must be “forested land cover” (with applicable soil and soil grade), unless reasonable historic information indicates the site was prairie prior to settlement (and may be modeled as “pasture” when using the Western Washington Hydrology Model).
- f) **Hydrologic Performance Requirement for Flow Control.** The Permittee must ensure that the following new development and redevelopment project sites are designed to control post development discharge flows: sites which create \geq 10,000 square feet effective impervious surface area; sites which convert $\frac{3}{4}$ acres or more from native vegetation to lawn/landscaping, and from which there is a surface discharge to a natural or manmade conveyance system; and, sites

which convert 2.5 acres or more of native vegetation to pasture, and from which there is a surface discharge to a natural or manmade conveyance system.

For these new development or redevelopment project sites, post-development stormwater discharge flows must not exceed the pre-development discharge flows for the range of 50% of the 2-year peak flow to 100% of the 50-year peak flow, as calculated by using the Western Washington Hydrology Model (or other continuous runoff model).

- For the purposes of this permit, the modeled pre-development condition for all new development and redevelopment project sites must be “forested land cover” (with applicable soil and soil grade), unless reasonable historic information indicates the site was prairie prior to settlement (and may be modeled as “pasture” when using the Western Washington Hydrology Model).
 - The Permittee must prioritize the use of small scale dispersion or infiltration practices, or other appropriate Low Impact Development practices to meet this flow control requirement. The Permittee may not design new development or redevelopment sites to meet this hydrologic performance requirement for flow control solely through the use of large scale retention or detention practices.
 - New development or redevelopment project sites that will discharge directly to the JBLM Canal, or indirectly through Outfalls #OF-4 or #OF-5, are exempt from this hydrologic performance requirement for flow control.
- g) **Runoff Treatment.** The Permittee must ensure the proper construction of stormwater treatment facilities for all new development or redevelopment sites in accordance with Appendix B of this permit.
- h) **Wetlands Protection.** The Permittee must ensure that discharges to wetlands from new development or redevelopment project sites maintain the hydrologic conditions, hydrophytic vegetation, and substrate characteristics necessary to support existing and designated uses. The hydrologic analysis must use the existing land cover condition to determine the existing hydrologic conditions, unless directed otherwise by a regulatory agency with jurisdiction.
- i) **Inspections.** Within 14 months of the permit effective date, the Permittee must develop an inspection program intended to verify that the permanent stormwater facilities used for onsite management, flow control and treatment as required by this Part are properly installed and operational. The inspection plan must describe the criteria which the Permittee will use to trigger a post-construction site inspection, timeframes within which sites meeting the criteria will be inspected, and the anticipated response to address any deficiencies identified.
- The Permittee must develop and utilize a site inspection form to document all post-construction site inspections required by this subpart.

- The written post-construction site inspection plan, and associated inspection form, must be included in the SWMP document no later than two years from the effective date of this permit.
 - Beginning with the 2nd Year Annual Report, and annually thereafter, information summarizing all inspections conducted by the Permittee during the previous reporting period, including the locations and total number of such site inspections, and resulting actions to address any deficiencies, must be submitted as part of the corresponding Annual Report.
- j) **Operation and Maintenance.** The Permittee must ensure long term operation and maintenance (O&M) of all permanent stormwater facilities used for onsite management, flow control, and treatment. No later than three years from the effective date of this permit, the Permittee must implement O&M standards (in the form of a manual or other specific reference[s]) to address all permanent stormwater facilities used for onsite stormwater management, flow control and treatment and which are installed at new development and redevelopment project sites after the effective date of this permit. The O&M standards for all permanent stormwater facilities must be consistent with Chapter 4, Volume V-*Runoff Treatment BMPs* of the 2012 *Stormwater Management Manual for Western Washington (2012)*
- To ensure long term O&M of stormwater facilities, the Permittee must require all entities responsible for such O&M to use the referenced maintenance standards/manual required in this Part.
 - The Permittee must maintain an inventory of all permanent stormwater facilities which are used for onsite stormwater management, flow control, and treatment, consistent with Part II.B.3.a of this permit, and must maintain records of all related maintenance activity.
 - A summary of anticipated annual maintenance activity, by type and number of facilities, must be included in the SWMP documentation.
 - A summary of facility maintenance activity accomplished during the previous reporting period must be included in the corresponding Annual Report
- k) **Training.** No later than one year from the effective date of this permit, the Permittee must ensure all staff responsible for plan review, hydrologic modeling, site inspections and enforcement necessary to implement the program outlined in Part II.B.5, are adequately trained to conduct these activities. Follow-up training must be provided as necessary to address changes in procedures, techniques or requirements. The Permittee must maintain records of relevant training provided, or obtained, and the staff members trained. A summary of this training occurring within the reporting period must be included in each Annual Report.

6. Pollution Prevention and Good Housekeeping for Municipal Operations & Maintenance.

Within two years from the effective date of this permit, the Permittee must update and implement its operations and maintenance (O&M) program to prevent or reduce pollutants in runoff from the Permittee's MS4 and from ongoing municipal operations. The written description of the program must be included in the SWMP document. At a minimum, the O&M program must address each of the following program components:

- a) **Maintenance Standards for Permanent Stormwater Facilities.** The Permittee must establish maintenance standards for its permanent stormwater facilities used for onsite management, flow control and treatment that are protective of facility function. The purpose of a maintenance standard is to determine if maintenance of a stormwater facility is required. The maintenance standard is not a measure of the facility's required condition at all times between inspections. Exceeding the maintenance standard between inspections is not a permit violation.

Unless there are circumstances beyond the Permittee's control, if an inspection required in Part II.B.6.b identifies that a facility's maintenance standard has been exceeded, the Permittee must perform appropriate maintenance as follows:

- Within 1 year for most facilities, except catch basins;
- Within 6 months for catch basins; and/or
- Within 2 years for maintenance that requires capital construction of less than \$25,000.

Where circumstances beyond the Permittee's control prevent the maintenance activity from occurring, the Permittee must document within the corresponding Annual Report the circumstances and how they were outside the Permittee's control. Circumstances beyond the Permittee's control may include, but are not limited to: denial or delay of access by property owners; denial or delay of necessary permit approvals; and unexpected reallocations of maintenance staff or resources to perform emergency work.

- b) **Inspection of Permanent Stormwater Facilities.** No later than two years from the effective date of this permit, the program must include annual inspection of all Permittee owned or operated permanent stormwater facilities used for flow control and treatment, other than catch basins. The Permittee must take appropriate maintenance actions in accordance with its adopted maintenance standards.

- The Permittee may reduce the inspection frequency based on maintenance records of double the length of time of the proposed inspection frequency. In the absence of maintenance records, the Permittee may substitute written statements to document a specific less frequent inspection schedule. Written statements shall be based on actual inspection and maintenance experience and shall be

included within the SWMP document and certified in accordance with Part VI.E.

- As part of the 2nd Year Annual Report, the Permittee must document the total number of Permittee-owned or operated permanent stormwater facilities used for flow control and treatment to be inspected in compliance with this Part. Subsequent Annual Reports must document summarize the Permittee's inspection and maintenance of those permanent stormwater facilities.
- c) **Spot Check Inspection of Permanent Stormwater Facilities.** The Permittee must conduct spot checks of potentially damaged permanent stormwater control facilities (other than catch basins) after major storm events. For the purposes of this permit, a major storm event is rainfall greater than the 24-hour, 10 year recurrence interval. The Permittee must conduct repairs or take appropriate maintenance action in accordance with maintenance standards established above, based on the results of the spot check inspections.
- d) **Inspections of Catch Basins.** The Permittee must inspect all catch basins and inlets owned or operated by the Permittee at least once before the end of the permit term. The Permittee must clean catch basins if inspection indicates cleaning is needed. Decant water and solids must be disposed of in accordance with Appendix A of this permit.
- As part of the 2nd Year Annual Report, the Permittee must report the total number of Permittee-owned or operated catchbasins to be inspected annually in compliance with this Part; subsequent Annual Reports must document the Permittee's progress toward inspecting and maintaining all catchbasins prior to the permit expiration date.
- e) **Compliance.** Compliance with the inspection requirements in Parts II.B.6.b, c, and d. above will be determined by evaluating Permittee records of an established stormwater facility inspection program. The Permittee must inspect at least 95% of the total universe of identified permanent stormwater facilities used for flow control and treatment, and 95% of all catchbasins, by the expiration date of the permit
- f) **Maintenance Practices.** The Permittee must document and implement maintenance practices to reduce stormwater impacts associated with runoff from streets, parking lots, roads or highways, parks, open space, road right-of- way, maintenance yards, stormwater facilities used for flow control and treatment and from road maintenance activities located or conducted within the permit area by the Permittee or other entities. The Permittee must ensure that the following activities are conducted in a manner that is protective of receiving water quality:
- Pipe cleaning;
 - Cleaning of culverts that convey stormwater in ditch systems;
 - Ditch maintenance;
 - Street cleaning;

- Road repair and resurfacing, including pavement grinding;
 - Snow and ice control;
 - Utility installation;
 - Pavement striping maintenance;
 - Maintaining roadside areas, including vegetation management; and
 - Dust control.
 - Application of fertilizer, pesticides, and herbicides, including the development of nutrient management and integrated pest management plans;
 - Sediment and erosion control;
 - Landscape maintenance and vegetation disposal;
 - Trash management; and
 - Building exterior cleaning and maintenance.
- g) **Training.** The Permittee must develop and implement an on-going training program for JBLM facility maintenance staff, contracted companies, environmental project officers, or other staff whose construction, operations or maintenance job functions may impact stormwater quality. The training program must address the importance of protecting water quality; the requirements of this permit; operation and maintenance standards, inspection procedures; selection of appropriate BMPs as required in this Part; ways to perform their job activities to prevent or minimize impacts to water quality; and procedures for reporting water quality concerns, including potential illicit discharges. Follow-up training must be provided as needed to address changes in procedures, techniques, or requirements. The Permittee must maintain records of relevant training provided or obtained, and the staff members trained. A summary of this training must be included in each Annual Report.
- h) **Stormwater Pollution Prevention Plans for Equipment Maintenance /Material Storage Yards.** Within two years of the effective date of this permit, the Permittee must develop and implement Stormwater Pollution Prevention Plans (SWPPP) for all heavy equipment maintenance or storage yards, and/or material storage facilities owned or operated by the Permittee within the permit area, which are not already regulated under the NPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activities, #WAR05-000F or another NPDES permit. Implementation of non-structural BMPs must begin immediately after the SWPPP is developed. A schedule for installation of any necessary structural BMPs must be included in the SWPPP. The Permittee may use generic SWPPPs that can be tailored to multiple similar activity sites to comply with this requirement. The SWPPP(s) must include a summary of BMPs expected to be utilized at the site and periodic visual observation of discharges from the facility by responsible staff to verify the effectiveness of BMPs used to reduce pollutants in runoff.

- i) **Documentation.** Records of all permanent stormwater facility inspections, catch basin inspections, maintenance, or repair activities conducted by the Permittee must be maintained in accordance with Part IV.C of this permit, and summarized for the preceding reporting period within the corresponding Annual Report.

C. Stormwater Retrofits to Reduce Discharges to Impaired and Degraded Receiving Waters.

1. The Permittee must conduct stormwater discharge, water quality and biological assessment monitoring as required in Part IV.
2. Within three years of the permit effective date, the Permittee must develop a stormwater retrofit plan to reduce flows and associated pollutant loadings from existing effective impervious surfaces into Clean Water Act Section 303(d) listed and other degraded water bodies. The retrofit plan must be consistent with the recommendations contained in the March 2007 *Murray/Sequalitchew Watershed Management Plan* and the 2008 *Chambers-Clover Creek Watershed Action Plan*.
 - a) At a minimum, the Permittee's retrofit plan must analyze potential locations to reduce both stormwater flow volume and pollutant loadings from cantonment area sub-basins draining to American Lake; Clover Creek; Murray Creek; and the Bell-McKay-Hamer Marshes near Sequalitchew Creek and the JBLM Canal.
 - b) For each potential location, the retrofit plan must evaluate the feasible use of low impact development techniques, and other controls that infiltrate, evapotranspire, harvest and re-use stormwater runoff, or which otherwise eliminate stormwater flow volume and pollutant loadings from existing surfaces discharging to waters listed in Part II.C.2.a.
 - c) The Permittee must evaluate and prioritize existing building locations where the disconnection of existing flows from rooftop downspouts into the MS4 and/or into waters of the United States could be accomplished. The Permittee must accomplish such retrofits as soon as practicable, with priority given to roof disconnection projects within the Clover Creek subbasin. The Permittee may consider using such techniques as full dispersion; downspout full infiltration systems; rain gardens; and/or other appropriate practices, as described in the 2012 *Stormwater Management Manual for Western Washington*.
 - d) The retrofit plan must include a prioritized list of potential projects and project locations for waterbodies listed in Part II.C.2.a. The Permittee must prioritize identified project locations through an evaluation and ranking process that includes the following considerations:
 - Efficacy of eliminating stormwater flows to the receiving water;
 - Feasibility;
 - Cost effectiveness;

- Pollutant removal effectiveness;
 - Effective impervious surface area potentially mitigated; and
 - Long term maintenance requirements.
- e) The Permittee must submit the retrofit plan to EPA as part of the 3rd Year Annual Report. In addition to the prioritized list of potential retrofit projects, the plan must include a summary of the Permittee's rooftop downspout disconnection evaluation and the total number of buildings/total square footage of rooftop disconnected from the MS4 or receiving waters after the Permit effective date.
- f) Prior to the expiration date of this permit, the Permittee must initiate or complete one or more structural retrofit project(s) sufficient to disconnect and infiltrate discharges from identified effective impervious surfaces equal to five (5) acres of cumulative area. Calculation of the cumulative total effective impervious surface area to be retrofitted may not include the amount of roof area mitigated through the roof downspout disconnection effort required in Part II.C.2.c. The Permittee must submit a comprehensive retrofit implementation status report to EPA with the 5th Year Annual Report.

D. Required Response to Violations of Water Quality Standards.

1. The Permittee must notify EPA in writing at the EPA address listed in Part IV.D within 30 days of becoming aware that, based on credible site-specific information, a discharge from the MS4 owned or operated by the Permittee is causing or contributing to a known or likely violation of water quality standards in the receiving water. Written notification provided under this Part must, at a minimum, identify the source of the site-specific information; describe the location, nature and extent of the known or likely water quality standard violation in the receiving water; and explain the reasons why the MS4 discharge is believed to be causing or contributing to the problem. For on-going or continuing violations, a single written notification to EPA will fulfill this requirement.
2. In the event that EPA determines, based on a notification from the Permittee as provided under Part II.D.1 or through any other means, that a discharge from the MS4 owned or operated by the Permittee is causing or contributing to a violation of water quality standards in a receiving water, EPA will notify the Permittee in writing that an adaptive management response outlined in Part II.D.4 below is required.
3. EPA may elect not to require an adaptive management response from the Permittee if:
 - a) EPA determines that the violation of water quality standards is already being addressed by a Total Maximum Daily Load (TMDL) implementation plan or other enforceable water quality cleanup plan; or

- b) EPA concludes the MS4 contribution to the violation will be eliminated through implementation of other permit requirements, regulatory requirements, or Permittee actions.

4. Adaptive Management Response:

- a) Within 60 days of receiving a notification under Part II.D.2, or by an alternative date established by EPA, the Permittee must review its Stormwater Management Program and submit a report to EPA. The Adaptive Management Response Report must include:
 - A description of the operational and/or structural BMPs that are currently being implemented at the location to prevent or reduce any pollutants that are causing or contributing to the violation of water quality standards, including a qualitative assessment of the effectiveness of each BMP.
 - A description of potential additional operational and/or structural BMPs that will or may be implemented in order to prevent or reduce to the maximum extent practicable any pollutants that are causing or contributing to the violation of water quality standards.
 - A description of the potential monitoring or other assessment and evaluation efforts that will or may be implemented to monitor, assess, or evaluate the effectiveness of the additional BMPs.
 - A schedule for implementing the additional BMPs including, as appropriate: funding, training, purchasing, construction, monitoring, and other assessment and evaluation components of implementation.
- b) EPA will, in writing, acknowledge receipt of the Adaptive Management Response Report within a reasonable time and notify the Permittee when it expects to complete its review of the report. EPA will either approve the additional BMPs and implementation schedule or require the Permittee to modify the report as needed. If modifications are required, EPA will specify a reasonable time frame in which the Permittee must submit and EPA will review the revised report.
- c) The Permittee must implement the additional BMPs, pursuant to the schedule approved by EPA, beginning immediately upon receipt of written notification of approval.
- d) The Permittee must include with each subsequent Annual Report a summary of the status of implementation and the results of any monitoring, assessment or evaluation efforts conducted during the reporting period. If, based on the information provided under this Part, EPA determines that modification of the BMPs or a specific implementation schedule is necessary EPA will notify the Permittee in accordance with Parts II.E.4, II.E.5 and/or VI.A.

E. Reviewing and Updating the SWMP

1. The Permittee must annually review their SWMP actions and activities as part of the preparation of the Annual Report required in Part IV.C
2. The Permittee may request changes to any SWMP action or activity specified in this permit in accordance with the following procedures:
 - a) Changes to delete or replace an action or activity specifically identified in this permit with an alternate action or activity may be requested at any time. Modification requests to EPA must include:
 - An analysis of why the original actions or activity is ineffective, infeasible, or cost prohibitive;
 - Expectations on the effectiveness of the replacement action or activity; and
 - An analysis of why the replacement action or activity is expected to better achieve the permit requirements.
 - b) Change requests must be made in writing and signed by the Permittee in accordance with Part VI.E.
3. The Permittee may request EPA review and approval of any existing program or document deemed to be equivalent to a specific SWMP program component required by this permit in accordance with Part II.A.7.
4. Documentation of any of the actions or activities required by this permit must be submitted to EPA upon request.
 - a) EPA may review and subsequently notify the Permittee that changes to the SWMP are necessary to:
 - Address discharges from the MS4 that are causing or contributing to adverse water quality impacts;
 - Include more stringent requirements necessary to comply with new federal or state statutory or regulatory requirements; or
 - Include other conditions deemed necessary by EPA to comply with water quality standards, and/or other goals and requirements of the CWA.
 - b) If EPA notifies the Permittee that changes to the SWMP are necessary pursuant to Part II.E.4.a, the notification will offer the Permittee an opportunity to propose alternative program changes to meet the objectives of the requested modification. Following this opportunity, the Permittee must implement any required changes according to the schedule set by EPA.
5. Any formal modifications to this permit will be accomplished according to Part VI.A of this permit.

- F. Transfer of Ownership, Operational Authority, or Responsibility for SWMP Implementation.** The Permittee must implement the actions and activities of the SWMP in all areas which are added or transferred to the Permittee's MS4 (or for which the Permittee becomes responsible for implementation of stormwater quality/quantity controls) as expeditiously as practicable, but not later than one year from the date upon which the new areas were added. A summary of areas added to the Permittee's MS4, and schedules for SWMP implementation, must be documented in the next Annual Report following the transfer.
- G. SWMP Resources.** The Permittee must provide adequate finances, staff, equipment and other support capabilities to implement the SWMP actions and activities outlined in this permit. Consistent with Part II.A.4.a, the Permittee must provide a summary of estimated SWMP implementation costs in each Annual Report. Provisions herein should not be interpreted to require obligations or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. § 1341.

III. Schedule for Implementation and Compliance. This table summarizes required compliance dates as contained in this permit. The Permittee must complete SWMP actions, and/or submit documentation to EPA, as summarized below. Annual Reports must document interim and completed status of required activities, and include program summary statistics, copies of interim or final documents, etc. relevant to the reporting period.

Table III. Schedule for Implementation and Compliance				
Permit Citation	Description of Action	Due Date	Include in the SWMP Document?	Include In Annual Report (AR)?
General Requirements				
II.A.3; IV.C.2	SWMP documentation	1 year from permit effective date	Yes, Update annually	Yes; Submit with each AR
II.A.4	Track SWMP info, costs & statistics	1 year from PED	Update SWMP annually	Submit w/each AR
II.A.7	Submit equivalent documents for EPA review & approval	6 months prior to required	Include EPA approvals in SWMP	
VI.B	Reapply for continued permit coverage	Not later than 180 days prior to permit expiration date		
II.E.1, IV.A.1, IV.C.2	Review SWMP actions for compliance with Permit	Annually		Document compliance in each AR
II.F	Implement SWMP in all newly acquired areas	1 year from date of acquisition		Summarize in subsequent AR
II.G	Summarize SWMP implementation costs	Annually		Summarize costs in each AR
Public Education and Outreach				
II.B.1	Conduct targeted education program; Document audience understanding & behavior adoption	2 years from permit effective date	Document goals, record education activities	Summarize activity in each AR
Public Involvement and Participation				
II.B.2.b	Convene coordination meetings to ensure effective SWMP implementation	6 months from permit effective date	Describe coordination activity	Summarize activity in each AR
II.B.2.c	Make SWMP available to public via website	1 year from permit effective date	Document website in SWMP	Document website in AR
II.B.2.d	Coordinate volunteer activities	At least 1x per year	Maintain log of activities	Summarize activity in AR
Illicit Discharge Detection and Elimination (IDDE)				
II.B.3	Implement comprehensive IDDE program	Not later than 180 days prior to permit expiration date	Describe program in SWMP	Summarize activity in each AR
II.B.3.a	Update & maintain MS4 map of cantonment areas	2 years from permit effective date	Include reference in SWMP	Submit upon request and/or w/ permit renewal application
II.B.3.b	Map the presence of any MS4 in the training area, particularly in Muck Creek watershed	180 days prior to permit expiration date		Submit map with renewal application
II.B.3.d	Detect & address illicit discharges into the MS4 through dry weather screening	30 months from permit effective date	Describe in SWMP	Summarize screening efforts in AR

Table III. Schedule for Implementation and Compliance				
Permit Citation	Description of Action	Due Date	Include in the SWMP Document?	Include In Annual Report (AR)?
Illicit Discharge Detection and Elimination (IDDE) continued				
II.B.3.d	Complete field screening of 75% of all MS4 outfalls	180 days prior to permit expiration date	Describe in SWMP	
II.B.3.d	Procedures to characterize illicit discharges	Respond to spills Immediately;& investigate complaints, reports within 7 days		Summarize efforts in AR
II.B.3.d	Procedures for source tracing, and elimination of illicit discharge	Initiate investigation within 21 days; take action to eliminate illicit connection within 45 days		
II.B.3.f	Educate employees businesses and public; publicize hotline/reporting	1 year from permit effective date		Summarize # of calls, follow-up action taken
II.B.3.g	Train responsible staff	2 years from permit effective date		Summarize training in AR
Construction Site Stormwater Runoff Control				
II.B.4	Construction Site Runoff Control Program	Ongoing	Describe in SWMP	
II.B.4.c	Maintain policies/ procedures used to enforce site controls	2 years from permit effective date	List policies and procedures	Summarize actions in AR
II.B.4.d	Maintain list of construction site BMPs to be used		Reference construction BMPs	
II.B.4.e	Include appropriate language in all contracts and requests for proposals		Provide example contract language in SWMP	
II.B.4.f	Conduct preconstruction review	Ongoing	Describe in SWMP	Summarize activity in AR
II.B.4.g	Construction site inspection plan; inspect prioritized sites at least quarterly	6 months from permit effective date	Include site inspection plan in SWMP	Summarize # of sites inspected and
II.B.4.h	Train responsible staff	Ongoing		Summarize in each AR
Stormwater Management for Areas of New Development and Redevelopment				
II.B.5	Manage SW from developed areas& new/redevelopment sites disturbing 5,00 sq feet or more	1 year from permit effective date	Describe in SWMP	Summarize status of required program
II.B.5.i	Develop site inspection program to verify proper installation of permanent SW facilities	14 months from permit effective date	Summarize inspection program in updated SWMP	Summarize inspections & actions beginning in 2 nd Year AR
II.B.5.j	Ensure long term operation and maintenance of new permanent SW facilities	3 years from permit effective date	Summarize anticipated annual maintenance activity in SWMP	Summarize activity in AR
II.B.5.k	Train responsible staff	1 year from permit effective date		Summarize training in AR
II.B.5.e, Appendix C	Notify EPA of sites exempted from hydrologic performance standards per Appendix C	Annually		Summarize projects in Annual Report
II.B.5.f, Appendix C	Notify EPA of sites exempted from the hydrologic flow control standard, per Appendix C	Within 15 days of decision to exempt site		

Table III. Schedule for Implementation and Compliance				
Permit Citation	Description of Action	Due Date	Include in the SWMP Document?	Include In Annual Report (AR)?
Pollution Prevention and Good Housekeeping for Municipal Operations & Maintenance				
II.B.6	Update and Implement O&M program	2 years from permit effective date	Describe O&M program in SWMP	Yes
II.B.6.a	Maintain SW facilities according to schedule established in permit	2 years from permit effective date	Document standards in SWMP	Yes; document circumstances preventing maintenance
II.B.6.b & c & d	Inspect 95% of permanent SW facilities/conduct spot checks after major storms; Inspect 95% all catch basins	No later than permit expiration date	Document schedules in SWMP document	Document # of facilities/catch basins in 2 nd year AR; Summarize activity
II.B.6.g	Train responsible staff	Ongoing	Describe training in SWMP	Summarize training in AR
II.B.6.h	Develop SW pollution prevention plans for equipment maintenance/material storage areas not addressed by other permits	2 years year from permit effective date	Document areas by type/locations in SWMP	Summarize activities in AR
Stormwater Retrofits to Reduce Discharges to Impaired and Degraded Receiving Waters				
II.C	Develop SW Retrofit Plan, including roof downspout disconnection opportunities	3 years from permit effective date	Summarize program plan in SWMP	Submit Retrofit Plan with 3 rd Year Annual Report
II.C.2.f	Initiate or complete retrofits from effective impervious surface of 5 acres cumulative area	No later than permit expiration date		Submit plan with 5 th Year AR
Required Response to Violations of Water Quality Standards				
II.D	Notify EPA when a discharge is causing or contributing to a violation of water quality standards	Within 30 days of Permittee knowledge		Summarize in each AR
Monitoring, Recordkeeping, and Reporting Requirements				
IV.A.2, IV.A.8	Develop monitoring and quality assurance plan	1 year from permit effective date	Describe monitoring plan in in SWMP	Submit plan with 1 st Year AR
IV.A.5, IV.C.1	Begin sampling stormwater discharge into American Lake	18 months from permit effective date		Submit data in 3 rd Year AR, annually thereafter
IV.A.6.a, IV.C.1	Begin water quality sampling in JBLM Canal	1 year from permit effective date		Submit data in 3 rd Year AR, annually thereafter
IV.A.6.b, IV.C.1	Begin water quality sampling in Clover and Murray Creeks	1 year from permit effective date		Submit data in 3 rd Year AR, annually thereafter
IV.A.7, IV.C.1	Collect two (2) benthic macroinvertebrate samples in Clover Creek / two (2) samples in Murray Creek	180 days prior to permit expiration date		Submit data in 5 th Year Annual Report
IV.A.9	Notify EPA regarding Permittee decision to monitor per the permit or participate in the RSMP	120 days from permit effective date		
IV.C.1, IV.C.2, IV.C.3	Submit Monitoring Reports and Annual Reports	Annually, on January 30 th of each year beginning in 2015		

IV. Monitoring, Recordkeeping, and Reporting Requirements

A. Monitoring

1. **Compliance Evaluation.** At least once per year, the Permittee must evaluate its compliance with these permit conditions and progress toward achieving the minimum control measures. This evaluation of permit compliance must be documented in each Annual Report required as described in Part IV.C.2.
2. **Monitoring Objectives.** The Permittee must monitor stormwater discharges, surface water quality and stream biology to assess the effectiveness of the SWMP to minimize the impacts from MS4 discharges. The Permittee must conduct monitoring to estimate phosphorus loading from its MS4 discharges into American Lake; characterize water quality discharging through the JBLM Canal; characterize water quality in Clover Creek and Murray Creek; and assess baseline biological conditions in Clover Creek and Murray Creek. Within one year from the effective date of this permit, the Permittee must develop a monitoring plan to address these objectives, including the quality assurance requirements as defined in Part IV.A.8. The monitoring plan must be submitted as part of the 1st year Annual Report.
3. **Representative Sampling.** Samples and measurements taken for the purpose of monitoring must be representative of the monitored activity.
4. **Monitoring Procedures.** Monitoring must be conducted according to test procedures approved under 40 CFR Part 136. Where an approved 40 CFR Part 136 method does not exist, and other test procedures have not been specified, any available method may be used after approval from EPA.
5. **Stormwater Discharge Monitoring.** No later than eighteen (18) months from the effective date of this permit, the Permittee must sample at least quarterly from at least one stormwater outfall discharging to American Lake. This monitoring must include stormwater flow measurements collected using automated or manual sampling methods. Samples must be analyzed for total phosphorus as summarized in Table IV.A. Beginning with the 3rd Year Annual Report, any data collected from the selected stormwater outfall(s) discharging to American Lake must be summarized and reported to EPA annually as part of the corresponding Annual Report. The Permittee may elect to opt out of this monitoring requirement, as described below in Part IV.A.9.

Table IV.A: Stormwater Discharge Monitoring For American Lake

Parameter	Monitoring requirements	
	Sample location ¹	Sample frequency ²
Flow (cfs)	See below	Quarterly
Total Phosphorus (mg/L)	See below	Quarterly

¹At least one (1) MS4 outfall discharging into American Lake, location(s) to be selected by Permittee.
²Samples must be collected at least quarterly during a storm event sufficient to produce a discharge.

6. Water Quality Monitoring.

- a) **Water Quality in the JBLM Canal.** No later than one year from the effective date of this permit, the Permittee must begin a water quality monitoring program within the JBLM Canal. Over a period of 24 consecutive months, the Permittee must collect water quality samples at least quarterly, for a total of eight (8) quarterly samples. In addition, the Permittee must also collect at least five (5) individual samples during “high flow” storm events, at a frequency to be determined by the Permittee. This monitoring must include flow measurement(s) using automated or manual sampling methods. All samples collected must be analyzed for the parameters listed in Table IV.B. All monitoring of water quality within the JBLM Canal, comprised of the minimum thirteen (13) sampling events described above, must be completed no later than 180 days prior to the expiration date of the permit. Beginning with the 3rd Year Annual Report, any monitoring data representing water quality discharging through the JBLM Canal must be summarized and reported to EPA annually as part of the corresponding Annual Report.

- b) **Water Quality in Clover Creek and Murray Creek.** No later than one year from the effective date of this permit, the Permittee must begin a water quality monitoring program in both Murray Creek and Clover Creek. This monitoring must include flow measurement(s) using automated or manual sampling methods. All samples must be analyzed for the parameters identified in Tables IV.C and IV.D, respectively. Beginning with the 3rd Year Annual Report, any monitoring data representing water quality in Clover Creek and Murray Creeks must be summarized and reported to EPA annually as part of the corresponding Annual Report

Table IV.B: Water Quality Monitoring Requirements for JBLM Canal

Parameter	Monitoring requirements	
	Sample location ¹	Sample frequency ²
Flow (cfs)	See below	See below
Temperature (C°)	See below	See below
Dissolved Oxygen (mg/L)	See below	See below
pH (s.u.)	See below	See below
Fecal coliform bacteria (cfu/100mL)	See below	See below
Total Nitrogen (mg/L)	See below	See below
Total Phosphorus (mg/L)	See below	See below
Total Suspended Solids (mg/L)	See below	See below
Turbidity (NTU)	See below	See below
Total and Dissolved Copper(µ/L)	See below	See below
Total and Dissolved Zinc(µ/L)	See below	See below
Hardness (mg/L)	See below	See below

¹ Samples must be collected from at least one (1) location within the JBLM Canal, downstream of all MS4 discharges/other flows entering the Canal, and prior to discharge into Puget Sound.

² Over a period of twenty four (24) consecutive months, the Permittee must collect samples quarterly, for a minimum of four samples per year, resulting in a minimum total of eight quarterly samples. An additional five (5) individual samples must be collected during “high flow” storm events, at a frequency to be determined by the Permittee.

Table IV.C: Water Quality Monitoring Requirements for Murray Creek

Parameter	Monitoring requirements	
	Sample location ¹	Sample frequency ²
Flow (cfs)	See below	Quarterly
Temperature (C°)	See below	Quarterly
Dissolved Oxygen (mg/L)	See below	Quarterly
pH (s.u.)	See below	Quarterly
Fecal coliform bacteria (cfu/100mL)	See below	Quarterly
Total Nitrogen (mg/L)	See below	Quarterly
Total Phosphorus (mg/L)	See below	Quarterly
Total Suspended Solids (mg/L)	See below	Quarterly
Turbidity (NTU)	See below	Quarterly
Total and Dissolved Copper(µ/L)	See below	Quarterly
Total and Dissolved Zinc(µ/L)	See below	Quarterly
Hardness (mg/L)	See below	Quarterly

¹ A minimum of one location in Murray Creek, to be selected by the Permittee.
² A minimum of four (4) samples must be collected in each calendar year.

Table IV.D: Water Quality Monitoring Requirements for Clover Creek

Parameter	Monitoring requirements	
	Sample location ¹	Sample frequency ²
Flow (cfs)	See below	Quarterly
Temperature (C°)	See below	Quarterly
Dissolved Oxygen (mg/L)	See below	Quarterly
pH (s.u.)	See below	Quarterly
Fecal coliform bacteria (cfu/100mL)	See below	Quarterly
Total Nitrogen (mg/L)	See below	Quarterly
Total Phosphorus (mg/L)	See below	Quarterly
Total Suspended Solids (mg/L)	See below	Quarterly
Turbidity (NTU)	See below	Quarterly
Total and Dissolved Copper(µ/L)	See below	Quarterly
Total and Dissolved Zinc(µ/L)	See below	Quarterly
Hardness (mg/L)	See below	Quarterly

¹ A minimum of one location in Clover Creek as it exits Permit Area, to be selected by the Permittee.
² A minimum of four (4) samples must be collected in each calendar year.

7. **Biological Monitoring.** No later than 180 days prior to the expiration date of this permit, the Permittee must collect at least two (2) benthic macroinvertebrate samples in Murray Creek and at least two (2) benthic macroinvertebrate samples in Clover Creek. One sampling event per waterbody must be conducted between the months August-October within any calendar year of the permit term. Sample locations should be in close proximity to the water quality monitoring locations identified by the Permittee to comply with Part IV.A.6.b. The Permittee must use benthic macroinvertebrate monitoring protocols which are consistent with the Pierce County Watershed Health

Monitoring Project, Thurston County's Water Resources Monitoring Program, and/or other contemporary Western Washington benthic macroinvertebrate monitoring programs. Each sample must be analyzed and scored using the Puget Sound Lowlands benthic index of biological integrity (B-IBI), as described at <http://pugetsoundstreambenthos.org/SiteMap.aspx>. The Permittee may elect to opt out of this monitoring requirement, as described below in Part IV.A.9.

8. Quality Assurance Requirements. The Permittee must develop a quality assurance plan (QAP) for all monitoring required in this Part. The QAP must be developed concurrent with the monitoring plan as described in Part IV.A.2. Any existing QAPs may be modified to meet the requirements of this section. Upon completion of the monitoring plan and QAP, the Permittee must submit the combined document to EPA with the 1st year Annual Report.

- a) The QAP must be designed to assist in planning for the collection and analysis of stormwater discharge, water quality and biological/benthic macroinvertebrate samples in support of the permit, and in explaining data anomalies when they occur.
- b) Throughout all sample collection and analysis activities, the Permittee must use the EPA-approved QA/QC and chain-of-custody procedures described in the following documents:
 - *EPA Requirements for Quality Assurance Project Plans EPA-QA/R-5* (EPA/240/B-01/003, March 2001). A copy of this document can be found electronically at: <http://www.epa.gov/quality/qs-docs/r5-final.pdf>
 - *Guidance for Quality Assurance Project Plans EPA-QA/G-5*, (EPA/600/R-98/018, February, 1998). A copy of this document can be found electronically at: <http://www.epa.gov/r10earth/offices/oea/epaqag5.pdf>
- c) At a minimum, the QAP must reflect the content specified in the EPA documents listed in Part IV.A.8.b, and include the following information:
 - Details on the number of samples, type of sample containers, preservation of samples, holding times, analytical methods, analytical detection and quantitation limits for each target compound, type and number of quality assurance field samples, precision and accuracy requirements, sample preparation requirements, sample shipping methods, and laboratory data delivery requirements;
 - Map(s) indicating the location of each sampling point;
 - Qualification and training of personnel; and
 - Name(s), address(es) and telephone number(s) of the laboratories, used by or proposed to be used by the Permittee.
- d) The Permittee must amend the QAP whenever there is a modification in sample collection, sample analysis, or other procedure addressed by the QAP.

- e) Copies of the QAP must be maintained by the Permittee and made available to EPA upon request.

9. Optional Participation in the Puget Sound Regional Stormwater Management Program (RSMP) Status and Trends Monitoring.

- a) The purpose of this part is to allow the Permittee the option to contribute to the Regional Stormwater Management Program (RSMP) Status and Trends Monitoring of small streams and marine nearshore in Puget Sound. The RSMP Status and Trends monitoring is described in Part S.8.b of the Washington Department of Ecology-issued *Western Washington Phase II Municipal Stormwater Permit* (effective August 1, 2013) through other sources.¹ The Permittee may elect to participate in the RSMP Status and Trends Monitoring program in lieu of the monitoring requirements specified in Part IV.B.5 and IV.B.7 of this permit. The Permittee's decision to participate in the RSMP will be considered binding through the duration of the permit term. The Permittee is solely responsible for discussing and arranging its potential in the RSMP with the program organizers prior to the EPA notification deadline in Part IV.A.9.c.
- b) This optional "participation in the RSMP" requires the Permittee to make a monetary payment, or series of annual payments, based on a per capita calculation to be assessed by the RSMP organizers in a manner similar to the calculated contributions from other municipal RSMP participants.
- c) Not later than 120 days from the effective date of this permit, the Permittee must inform EPA in writing of its decision to either conduct the monitoring described in Parts IV.A.5 and IV.A.7, or to participate in the Puget Sound RSMP. The notification letter must be submitted to the EPA address indicated in Part IV.D.

B. Recordkeeping

1. **Retention of Records.** The Permittee must retain records and copies of all information (including all monitoring, calibration and maintenance records and all original strip chart recordings for any continuous monitoring instrumentation, copies of all reports required by this permit, a copy of the NPDES permit, and records of all data used to complete the application for this permit) for a period of at least five years from the date of the sample, measurement, report or application, or for the term of this permit, whichever is longer. This period may be extended at the request of the EPA at any time. Records include all information used in the development of the SWMP, all monitoring data, copies of all reports, and all data used in the development of the permit application.

¹ See *Western Washington Phase II Municipal Stormwater Permit* available online at <http://www.ecy.wa.gov/programs/wq/stormwater/municipal/phaseIIww/wwphiipermit.html>; and the RSMP website at <http://www.ecy.wa.gov/programs/wq/stormwater/municipal/rsmp.html>

2. Availability of Records. The Permittee must submit the records referred to in Part IV.B.1 to EPA only when such information is requested. The Permittee must retain all records comprising the SWMP required by this permit (including a copy of the permit language and all Annual Reports) at a location accessible to the EPA. The Permittee must make records (including the permit application, Annual Reports and the SWMP document) available to the public if requested to do so in writing pursuant to the Freedom of Information Act. The public must be able to request and view the records during normal business hours, and the Permittee must make all reasonable efforts to comply with such requests. As allowed by the Freedom of Information Act, the Permittee may charge fees for copies of documents provided in response to written requests from the public.

C. Reporting Requirements

1. Stormwater Discharge, Water Quality and Biological Monitoring Reports.

Beginning two years from the effective date of this permit, and at least once per year thereafter, all available stormwater discharge and water quality monitoring data collected during the prior reporting period(s) must be submitted as part of the corresponding Annual Report. If the Permittee conducts more frequent monitoring than is required by this Permit, the results of such monitoring must also be submitted. All biological monitoring data and corresponding Puget Sound Lowlands I-IBI scores must be submitted as part of the subsequent Annual Report following the sample collection. At a minimum, this Report must include:

- a) Dates of sample collection and analyses;
- b) Results of analytical samples collected;
- c) Location of sample collection;
- d) Summary analysis of data collected.

2. Annual Report. No later than January 30, 2015, and annually thereafter, the Permittee must submit an Annual Report to EPA. The reporting periods and associated due dates for each Annual Report are specified in Table IV.E. Copies of all Annual Reports must be made available to the public, at a minimum, upon written request to the Permittee pursuant to the Freedom of Information Act.

Table IV.E - Annual Report Deadlines		
Annual Report	Reporting Period	Due Date
1 st Year Annual Report	October 1, 2013–September 30, 2014	January 30, 2015
2 nd Year Annual Report	October 1, 2014–September 30, 2015	January 30, 2016
3 rd Year Annual Report	October 1, 2015–September 30, 2016	January 30, 2017
4 th Year Annual Report	October 1, 2016–September 30, 2017	January 30, 2018
5 th Year Annual Report	October 1, 2017–September 30, 2018	January 30, 2019

- 3. Contents of the Annual Report.** The following information occurring during the relevant reporting period must be summarized or included within each Annual Report:
- a) An updated SWMP document, as required in Part II.A.3;
 - b) A report or assessment of compliance with this permit and progress towards achieving the identified actions and activities for each minimum control measure in Parts II.B and II.C. Status of each program area must be addressed, even if activity has previously been completed or has not yet been implemented;
 - c) Results of any information collected and analyzed during the previous 12 month reporting period, including summaries of program costs and descriptions of funding sources, information used to assess the success of the program at improving water quality to the maximum extent practicable, or other relevant information;
 - d) Stormwater Discharge, Water Quality and Biological Monitoring Reporting, as required in Part IV.C.1;
 - e) A summary of the number and nature of all inspections, formal enforcement actions, and/or other similar activities performed by the Permittee;
 - f) A summary of all public and private new development or redevelopment project sites that disturb 5,000 square feet or more of land area commencing during the reporting period, including project name, project location, total acreage of new development or redevelopment, and all documentation related to any project sites exempted by JBLM or its counterparts from the provisions of Part II.B.5 pursuant to Permit Appendix C;
 - g) A summary list of any water quality compliance-related enforcement actions received from regulatory agencies other than EPA. Such actions include, but are not limited to, formal warning letters, notices of violation, field citations, or similar actions. This summary should include dates, project synopsis, and actions taken to address the compliance issue(s);
 - h) Copies of completed or revised Monitoring & Quality Assurance Plan(s), retrofit plans, education materials, ordinances (or other regulatory mechanisms), equivalent documents or program materials, inventories, guidance materials, maps, or other products produced as required by this permit;
 - i) A general summary of the activities the Permittee plans to undertake during the next reporting cycle (including an implementation schedule) for each minimum control measure;
 - j) A description and schedule for implementation of additional BMPs that may be necessary, based on monitoring results, to ensure compliance with applicable water quality standards;
 - k) Notice if the Permittee is relying on another entity to satisfy any of the permit obligations, if applicable; and

- l) A description of the location, size, receiving water, and drainage area of any new MS4 outfall(s) owned or operated by the Permittee added to the system since the previous annual reporting period.

D. Addresses. Reports and other documents to be submitted as required by this permit must be signed and certified in accordance with Part VI.E.

- a) If EPA provides the Permittee of an alternative means of submitting reports during the permit term other than the manner described herein, the Permittee may use that alternative reporting mechanism in lieu of this provision.
- b) One hard copy and one electronic copy (on CD ROM, or through prearranged transmission by Email as indicated below) of any submittal must be provided the following address:

EPA Region 10: United States Environmental Protection Agency
 Region 10
 Attention: Municipal Stormwater Program Contact
 NPDES Compliance Unit
 1200 6th Avenue, Suite 900 (OCE-133)
 Seattle, WA 98101

- c) Prior to the electronic submittal of any required documents to EPA, the Permittee must contact the EPA Region 10 NPDES MS4 Permit Program Coordinator at (206) 553-6650 or (800) 424-4372, and obtain appropriate Email contact information.

V. Compliance Responsibilities

A. Duty to Comply. The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

B. Penalties for Violations of Permit Conditions

- 1. Civil and Administrative Penalties.** Pursuant to 40 CFR Part 19 and the Act, any person who violates Section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed the maximum amounts authorized by Section 309(d) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701) (currently \$37,500 per day for each violation).

- 2. Administrative Penalties.** Any person may be assessed an administrative penalty by the Administrator for violating Section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of this Act. Pursuant to 40 CFR Part 19 and the Act, administrative penalties for Class I violations are not to exceed the maximum amounts authorized by Section 309(g)(2)(A) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701) (currently \$16,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$37,500). Pursuant to 40 CFR Part 19 and the Act, penalties for Class II violations are not to exceed the maximum amounts authorized by Section 309(g)(2)(B) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701) (currently \$16,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$177,500).
- 3. Criminal Penalties.**
- a) **Negligent Violations.** The Act provides that any person who negligently violates Sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under Section 402 of the Act, or any requirement imposed in a pretreatment program approved under Section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than one year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than two years, or both.
- b) **Knowing Violations.** Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than three years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than six years, or both.
- c) **Knowing Endangerment.** Any person who knowingly violates Section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in Section 309(c)(3)(B)(iii) of the Act, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions.

- d) **False Statements.** The Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than two years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than four years, or both. The Act further provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

C. Need to Halt or Reduce Activity not a Defense. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this permit.

D. Duty to Mitigate. The Permittee must take all reasonable steps to minimize or prevent any discharge or disposal in violation of this Permit that has a reasonable likelihood of adversely affecting human health or the environment.

E. Proper Operation and Maintenance. The Permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the Permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

F. Bypass of Treatment Facilities.

1. Bypass not exceeding limitations. The Permittee may allow any bypass to occur that does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 2 and 3 of this Part.

2. Notice.

- a) Anticipated bypass. If the Permittee knows in advance of the need for a bypass, it must submit prior written notice, if possible at least 10 days before the date of the bypass.
- b) Unanticipated bypass. The Permittee must submit notice of an unanticipated bypass as required under Part V.K of this Permit.

3. Prohibition of bypass. The intentional bypass of stormwater from all or any portion of a stormwater treatment BMP whenever the design capacity of the treatment BMP is not

exceeded is prohibited, and the Director of the Office of Compliance and Enforcement may take enforcement action against the Permittee for such bypass, unless:

- a) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated stormwater, or maintenance during normal dry weather. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of dry weather or preventive maintenance; and
 - c) The Permittee submitted notices as required under paragraph 2 of this Part.
4. EPA's Director of the Office of Compliance and Enforcement may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph 3.a. of this Part.

G. Upset Conditions

1. **Effect of an upset.** An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the Permittee meets the requirements of G.2 of this Part. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
2. **Conditions necessary for a demonstration of upset.** To establish the affirmative defense of upset, the Permittee must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a) An upset occurred and that the Permittee can identify the cause(s) of the upset;
 - b) The permitted facility was at the time being properly operated;
 - c) The Permittee submitted notice of the upset as required under Part V.K; and
 - d) The Permittee complied with any remedial measures required under Part V.D.
3. **Burden of proof.** In any enforcement proceeding, the Permittee seeking to establish the occurrence of an upset has the burden of proof.

H. Toxic Pollutants. The Permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

I. Planned Changes. The Permittee must give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility whenever:

1.The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source as determined in 40 CFR §122.29(b);
or

2.The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in the permit.

J. Anticipated Noncompliance. The Permittee must give advance notice to the Director of any planned changes in the permitted facility or activity that may result in noncompliance with this permit.

K. Twenty-Four Hour Reporting.

1. The Permittee must report the following occurrences of noncompliance by telephone within 24 hours from the time the Permittee becomes aware of the circumstances:
 - a) any discharge to or from the MS4 which could result in noncompliance that endangers health or the environment;
 - b) any unanticipated bypass that exceeds any effluent limitation in the permit (See Part V.F);
 - c) any upset that exceeds any effluent limitation in the permit (See Part V.G);
2. A written submission must also be provided within five days of the time you become aware of the circumstances. The written submission must contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
3. The following shall be included as information which must be reported within 24 hours under this paragraph.
 - a) Any unanticipated bypass which exceeds any effluent limitation in the permit. (See 40 CFR §122.41(g).)
 - b) Any upset which exceeds any effluent limitation in the permit (See 40 CFR 122.41(n)(1).)
4. The Director of the Office of Compliance and Enforcement may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the NPDES Compliance Hotline in Seattle, Washington, by telephone, (206) 553-1846.
5. Reports must be submitted to the addresses in Part IV.D.

L. Other Noncompliance. The Permittee must report all instances of noncompliance, not required to be reported within 24 hours, as part of each Annual Report as required in Part IV.C.2. Noncompliance reports must contain the information listed in Part V.K. of this permit

VI. General Provisions

A. Permit Actions. This permit may be modified, revoked and reissued, or terminated for cause as specified in 40 CFR §§ 122.62, 122.64, or 124.5. The filing of a request by the Permittee for a permit modification, revocation and reissuance, termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

B. Duty to Reapply. If the Permittee intends to continue an activity regulated by this permit after the expiration date of this permit, the Permittee must apply for and obtain a new permit. In accordance with 40 CFR §122.21(d), and unless permission for the application to be submitted at a later date has been granted by the Director, the Permittee must submit a new application at least 180 days before the expiration date of the permit, or in conjunction with the fourth Annual Report. The reapplication package must contain the information required by 40 CFR §122.21(f) which includes: name and mailing address(es) of the Permittee(s) that operate the MS4(s), and names and titles of the primary administrative and technical contacts for the municipal Permittee(s). In addition, the Permittee must identify the identification number of the existing NPDES MS4 permit; any previously unidentified water bodies that receive discharges from the MS4; a summary of any known water quality impacts on the newly identified receiving waters; a description of any changes to the number of applicants; and any changes or modifications to the Stormwater Management Program. The re-application package may incorporate by reference the fourth Annual Report when the reapplication requirements have been addressed within that report.

C. Duty to Provide Information. The Permittee must furnish to the Director, within the time specified in the request, any information that the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee must also furnish to the Director, upon request, copies of records required to be kept by this permit.

D. Other Information. When the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or that it submitted incorrect information in a permit application or any report to the Director, the Permittee must promptly submit the omitted facts or corrected information.

E. Signatory Requirements. All applications, reports or information submitted to the Director must be signed and certified as follows.

1. All permit applications must be signed as follows:
 - a) For a corporation: by a responsible corporate officer.

- b) or a partnership or sole proprietorship: by a general partner or the proprietor, respectively.
 - c) For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official.
2. All reports required by the permit and other information requested by the Director must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
- a) The authorization is made in writing by a person described above;
 - b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the organization; and
 - c) The written authorization is submitted to the Director.
3. **Changes to authorization.** If an authorization under Part VI.E.2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part VI.E.2 must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.

4. **Certification.** Any person signing a document under this Part must make the following certification:

"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."

F. Availability of Reports. In accordance with 40 CFR Part 2, information submitted to EPA pursuant to this permit may be claimed as confidential by the Permittee. In accordance with the Act, permit applications, permits and effluent data are not considered confidential. Any confidentiality claim must be asserted at the time of submission by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice to the Permittee. If a claim is asserted, the information will be treated in accordance with the procedures in 40 CFR Part 2, Subpart B (Public Information) and 41 Fed. Reg. 36902 through 36924 (September 1, 1976), as amended.

G. Inspection and Entry. The Permittee must allow the Director or an authorized representative (including an authorized contractor acting as a representative of the Director), upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.

H. Property Rights. The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, nor any infringement of state or local laws or regulations.

I. Transfers. This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the Permittee and incorporate such other requirements as may be necessary under the Act. (See 40 CFR §122.61; in some cases, modification or revocation and reissuance is mandatory.)

J. State/Tribal Environmental Laws

1. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State/Tribal law or regulation under authority preserved by Section 510 of the Act.
2. No condition of this permit releases the Permittee from any responsibility or requirements under other environmental statutes or regulations.

K. Oil and Hazardous Substance Liability. Nothing in this permit shall be constructed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties to which the Permittee is or may be subject under Section 311 of the CWA or Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA).

L. Severability. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to the circumstances, and the remainder of this permit shall not be affected thereby.

VII. Definitions and Acronyms

All definitions contained in Section 502 of the Act and 40 CFR Part 122 apply to this permit and are incorporated herein by reference. For convenience, simplified explanations of some regulatory/statutory definitions have been provided but, in the event of a conflict, the definition found in the statute or regulation takes precedence.

“Administrator” means the Administrator of the EPA, or an authorized representative.

“Air Operations Areas” or AOAs, is defined in the *Aviation Stormwater Design Manual - Managing Wildlife Hazards Near Airports* (December 2008). For the purposes of this Permit, the term AOA means any area of an airport used or intended to be used for landing, takeoff, or surface maneuvering of aircraft. This includes such paved or unpaved areas that are used or intended to be used for the unobstructed movement of aircraft in addition to associated runways, taxiways, or aprons. For the purposes of this permit, the term AOA also includes the following unique subareas as defined in the *Aviation Stormwater Design Manual - Managing Wildlife Hazards Near Airports* (December 2008) and described in this Part: Clearway, Object-Free Area, Runway Protection Zone, Runway Safety Area, and Taxiway Safety Areas. See: <http://www.wsdot.wa.gov/aviation/AirportStormwaterGuidanceManual.htm>

“AKART” means all known, available and reasonable methods of prevention, control and treatment, and refers to the State of Washington Water Pollution Control Act, Chapter 90.48.010 and 90.48.520 RCW.

“Best Management Practices (BMPs)” means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States and waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. See “stormwater control measure (SCM).”

“Bioretention” is the water quality and water quantity stormwater management practice using the chemical, biological and physical properties of plants, microbes and soils for the removal of pollution from stormwater runoff. Bioretention, for the purpose of this permit, means engineered facilities that store and treat stormwater by passing it through a specified soil profile, and either retain or detain the treated stormwater for flow attenuation. Refer to the 2012 *Stormwater Management Manual for Western Washington*, Chapter 7 of Volume V – *Runoff Treatment BMPs* for Bioretention BMP types and design specifications.

“Bypass” means the intentional diversion of waste streams from any portion of a treatment facility. See 40 CFR §122.41(m)(1)(i).

“Canopy Interception” is the interception of precipitation, by leaves and branches of trees and vegetation that does not reach the soil.

“Clearway,” as defined in the *Aviation Stormwater Design Manual - Managing Wildlife Hazards Near Airports* (December 2008), means a defined rectangular area beyond the end of a runway cleared or suitable for use in lieu of runway to satisfy takeoff distance requirements. This is the region of space above an inclined plane that leaves the ground at the end of the runway. See: <http://www.wsdot.wa.gov/aviation/AirportStormwaterGuidanceManual.htm>

“Construction General Permit or CGP” means the current version of the U.S. Environmental Protection Agency’s *NPDES General Permit for Stormwater Discharges from Construction Activities in Washington, Permit No. WAR12-000F*. The permit is posted on EPA’s website at www.epa.gov/npdes/stormwater/cgp.

“Common Plan of Development” is a contiguous construction project where multiple separate and distinct construction activities may be taking place at different times on different schedules but under one plan. The “plan” is broadly defined as any announcement or piece of documentation or physical demarcation indicating construction activities may occur on a specific plot; included in this definition are most subdivisions and industrial parks.

“Construction Activity” includes, but is not limited to, clearing, grading, excavation, and other site preparation work related to construction of residential buildings and non-residential buildings, and heavy construction (e.g., highways, streets, bridges, tunnels, pipelines, transmission lines and industrial non-building structures). See “Stormwater Discharge Associated with Construction Activity.”

“Control Measure” as used in this permit, refers to any Best Management Practice or other method used to prevent or reduce the discharge of pollutants to waters of the United States and waters of the State.

“Converted vegetation” or converted vegetation areas, means the surfaces on a project site where native vegetation, pasture, scrub/shrub, or unmaintained non-native vegetation (e.g., himalayan blackberry, scotch broom) are converted to lawn or landscaped areas, or where native vegetation is converted to pasture.

“CWA” or “The Act” means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub.L. 92-500, as amended by Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483 and Pub. L. 97-117, 33 U.S.C. 1251 et seq.

“Director” means the Environmental Protection Agency Region 10 Regional Administrator, the Director of the Office of Water and Watersheds, the Director of the Office of Compliance and Enforcement, or an authorized representative.

“Discharge” when used without a qualifier, refers to “discharge of a pollutant” as defined at 40 CFR §122.2.

“Discharge of a pollutant” means (a) any addition of any “pollutant” or combination of pollutants to “waters of the United States” from any “point source,” or (b) any addition of any pollutant or combination of pollutants to the waters of the “contiguous zone” or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. This definition includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. This term does not include an addition of pollutants by any “indirect discharger.”

“Discharge-related Activities” include: activities which cause, contribute to, or result in stormwater point source pollutant discharges, and measures to control such stormwater discharges, including the siting, construction, and operation of best management practices to control, reduce or prevent stormwater pollution.

“Discharge Monitoring Report or DMR” means the EPA uniform national form, including any subsequent additions, revisions or modification for the reporting of self monitoring results by the Permittee. See 40 CFR §122.2.

“Disconnect” for the purposes of this permit, means the change from a direct discharge into receiving waters to one in which the discharged water flows across a vegetated surface, through a constructed water or wetlands feature, through a vegetated swale, or other attenuation or infiltration device before reaching the receiving water.

“Effective impervious surfaces” are those impervious surfaces that are connected via sheet flow or discrete conveyance to a drainage system. (Impervious surfaces are considered ineffective if: 1) the runoff is dispersed through at least one hundred feet of native vegetation in accordance with BMT T55.30 – “Full Dispersion” as described in Chapter 5 of Volume V of the 2012 *Stormwater Management Manual for Western Washington*; or 2) residential roof runoff is infiltrated in accordance with Downspout Full Infiltration Systems in BMP T5.10A in Volume III –*Hydrologic Analysis and Flow Control BMPs* of the 2012 *Stormwater Management Manual for Western Washington*; or 3) approved continuous runoff modeling methods indicate that the entire runoff file is infiltrated.

“Engineered Infiltration” is an underground device or system designed to accept stormwater and slowly exfiltrates it into the underlying soil. This device or system is designed based on soil tests that define the infiltration rate.

“Erodible or leachable materials” means wastes, chemicals, or other substances that measurably alter the physical or chemical characteristics of runoff when exposed to rainfall. Examples include erodible soils that are stockpiled, uncovered process wastes, manure, fertilizers, oily substances, ashes, kiln dust, and garbage dumpster leakage.

“Erosion” means the process of carrying away soil particles by the action of water.

”Evaporation” means rainfall that is changed or converted into a vapor.

“Evapotranspiration” means the sum of evaporation and transpiration of water from the earth’s surface to the atmosphere. It includes evaporation of liquid or solid water plus the transpiration from plants.

“Extended Filtration” is a structural stormwater device which filters stormwater runoff through a soil media and collects it in an under drain which slowly releases it after the storm is over.

“EPA” means the Environmental Protection Agency Regional Administrator, the Director of the Office of Water and Watersheds, or an authorized representative.

“Facility or Activity” means any NPDES “point source” or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the NPDES program.

“Green infrastructure” means runoff management approaches and technologies that utilize, enhance and/or mimic the natural hydrologic cycle processes of infiltration, evapotranspiration and reuse.

“Hard surface” means an impervious surface, a permeable pavement, or a vegetated roof.

“Hydromodification” means changes to the stormwater runoff characteristics of a watershed caused by changes in land use.

“Hyperchlorinated” means water that contains more than 10 mg/Liter chlorine.

“Illicit Connection” means any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.

“Illicit Discharge” is defined at 40 CFR §122.26(b)(2) and means any discharge to a municipal separate storm sewer that is not entirely composed of stormwater, except discharges authorized under an NPDES permit (other than the NPDES permit for discharges from the MS4) and discharges resulting from fire fighting activities.

“Impaired Water” (or “Water Quality Impaired Water”) for purposes of this permit means any water body identified by the State of Washington or EPA pursuant to Section 303(d) of the Clean Water Act as not meeting applicable State water quality standards. Impaired waters include both waters with approved or established Total Maximum Daily Loads (TMDLs), and those for which a TMDL has not yet been approved or established.

“Impervious surface” means a non-vegetated surface area that either prevents or retards the entry of water into the soil mantle as under natural conditions prior to development. “Impervious surface” also means a non-vegetated surface area which causes water to run off the surface in greater quantities (or at an increased rate of flow) than the flow present under natural conditions prior to development. Common impervious surfaces include, but are not limited to: roof tops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, and

oiled, macadam or other surfaces which similarly impede the natural infiltration of stormwater. Open, uncovered retention/detention facilities must be considered impervious surfaces for purposes of runoff modeling.

“Industrial Activity” as used in this permit refers to the eleven categories of industrial activities included in the definition of discharges of stormwater associated with industrial activity at 40 CFR §122.26(b)(14).

“Industrial Stormwater” as used in this permit refers to stormwater runoff from industrial activities, such as those defined in 40 CFR 122.26(b)(14)(i-xi).

“Infiltration” is the process by which stormwater penetrates into soil.

“Low Impact Development” or “LID” means a stormwater and land use management strategy that strives to mimic pre-development hydrologic processes of infiltration, filtration, storage, evaporation, and transpiration by emphasizing conservation, use of onsite natural features, site planning, and distributed stormwater management practices that integrated into a project design.

“LID Best Management Practices” or “LID practices,” means the distributed stormwater management practices, integrated into a project design, that emphasize pre-disturbance hydrologic processes of infiltration, filtration, storage, evaporation and transpiration. LID BMPs include, but are not limited to, bioretention/rain gardens, permeable pavements, roof downspout controls, dispersion, soil quality and depth, minimal excavation foundations, vegetated roofs, and water re-use.

“LID Principles” means the land use management strategies that emphasize conservation, use of on-site natural features, and site planning to minimize impervious surfaces, native vegetation loss, and stormwater runoff.

“Major storm event” as used in this permit, refers to rainfall greater than the 24 hour- 10 year-recurrence interval.

“Maintenance” means the repair and maintenance includes activities conducted on currently serviceable structures, facilities, and equipment that involves no expansion or use beyond that previously existing and results in no significant adverse hydrologic impact. It includes those usual activities taken to prevent a decline, lapse, or cessation in the use of structures and systems. Those usual activities may include replacement of dysfunctional facilities, including cases where environmental permits require replacing an existing structure with a different type structure, as long as the functioning characteristics of the original structure are not changed. One example is the replacement of a collapsed, fish blocking, round culvert with a new box culvert under the same span, or width, of roadway. In regard to stormwater facilities, maintenance includes assessment to ensure ongoing proper operation, removal of built up pollutants (i.e. sediments), replacement of failed or failing treatment media, and other actions taken to correct defects as identified in the maintenance standards of Chapter 4, Volume V- *Runoff Treatment BMPs* of the 2012 *Stormwater*

Management Manual for Western Washington. See also Road Pavement Maintenance exemptions in Appendix C of this Permit.

“MEP” or "maximum extent practicable," means the technology-based discharge standard for municipal separate storm sewer systems to reduce pollutants in stormwater discharges that was established by CWA Section 402(p). EPA’s discussion of MEP as it applies to regulated small MS4s is found at 40 CFR §122.34.

“Measurable Goal” means a quantitative measure of progress in implementing a component of a stormwater management program.

“Minimize” means to reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.

“MS4” means "municipal separate storm sewer system" and is used to refer to a Large, Medium, or Small Municipal Separate Storm Sewer System regulated under the federal NPDES permit program. The term, as used within the context of this permit, refers to separate storm sewer system owned or operated within the permit area by JBLM. See “municipal separate storm sewer” below and definitions at 40 CFR 122.26(b)(18), (19)

“Municipality” means a city, town, borough, county, parish, district, association, or other public body created by or under State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under Section 208 of the CWA.

“Municipal Separate Storm Sewer” is defined at 40 CFR 122.26(b)(8) and means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under Section 208 of the CWA that discharges to waters of the United States; (ii) Designed or used for collecting or conveying stormwater; (iii) Which is not a combined sewer; and (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR §122.2.

“Seattle Urbanized Area” means the greater Seattle, Washington, area delineated by the Year 2000 Census by the U.S. Bureau of the Census according to the criteria defined by the Bureau on March 15, 2002 (67 FR 11663) namely, the area consisting of contiguous, densely settled census block groups and census blocks that meet minimum population density requirements, along with adjacent densely settled census blocks that together encompass a population of at least 50,000 people.

“National Pollutant Discharge Elimination System” or “NPDES” means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318 and 405 of the CWA. The term includes an “approved program” delegated to a State agency.

“Native vegetation” means vegetation comprised of plant species, other than noxious weeds, that are indigenous to the coastal region of the Pacific Northwest and which reasonably could have been expected to naturally occur on the site. Examples include trees such as Douglas Fir, western hemlock, western red cedar, alder, big-leaf maple, and vine maple; shrubs such as willow, elderberry, salmonberry, and salal; and herbaceous plants such as sword fern, foam flower, and fireweed.

“Object-Free Area,” as defined in the *Aviation Stormwater Design Manual - Managing Wildlife Hazards Near Airports* (December 2008), means an area on the ground centered on a runway, taxiway, or taxilane centerline provided to enhance the safety of aircraft operations by having the area free of aboveground objects protruding above the Runway Safety Area (RSA, defined below) edge elevation, except for objects that need to be located in the OFA for air navigation or aircraft ground maneuvering purposes. See:

<http://www.wsdot.wa.gov/aviation/AirportStormwaterGuidanceManual.htm>

“On-site Stormwater Management BMPs” as used in this Permit, means Low Impact Development BMPs or practices.

“Outfall” means a point source (defined below) at the point where a municipal separate storm sewer discharges to waters of the United States and does not include open conveyances connecting two municipal separate storm sewers or pipes, tunnels, or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States.

“Owner or operator” means the owner or operator of any “facility or activity” subject to regulation under the NPDES program.

“Permitting Authority” means U.S. Environmental Protection Agency, or EPA.

“Permeable pavement” means pervious concrete, porous asphalt, permeable pavers or other forms of pervious or porous paving material intended to allow passage of water through the pavement section. It often includes an aggregate base that provides structural support and acts as a stormwater reservoir.

“Pervious Surface” means any surface material that allows stormwater to infiltrate into the ground. Examples include lawn, landscape, pasture, native vegetation areas, and permeable pavements.

“Permeable pavement” or “permeable paving” means surfaces which are designed to accommodate pedestrian, bicycle, and vehicle traffic while allowing infiltration, treatment, and storage of stormwater. General categories of permeable paving systems include: open-graded concrete or hot-

mix asphalt pavement; aggregate or plastic pavers; and plastic grid systems, as discussed in the *Low Impact Development Technical Guidance Manual for Puget Sound* (December 2012).

“Permanent stormwater management controls” see “post-construction stormwater management controls.”

“Point Source” means 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, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff.

"Pollutant" is defined at 40 CFR §122.2. A partial listing from this definition includes: dredged spoil, solid waste, sewage, garbage, sewage sludge, chemical wastes, biological materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial or municipal waste.

“Pollutant(s) of concern" includes any pollutant identified as a cause of impairment of any water body that will receive a discharge from a MS4 authorized under this permit.

“Pollution-generating hard surface (PGHS)” means those hard surfaces considered to be a significant source of pollutants in stormwater runoff. See the listing of surfaces under “pollution-generating impervious surface.”

“Pollution-generating impervious surface (PGIS)” means those hard surfaces or impervious surfaces considered to be a significant source of pollutants in stormwater runoff. Such surfaces include those which are subject to: vehicular use; industrial activities; or storage of erodible or leachable materials, wastes, or chemicals, and which receive direct rainfall or the run-on or blow-in of rainfall. Metal roofs unless they are coated with an inert, non-leachable material (e.g., baked-on enamel coating); or .roofs that are subject to venting significant amounts of dusts, mists, or fumes from of manufacturing, commercial, or other indoor activities.

“Pollution-generating pervious surface (PGPS)” means any non-impervious surface subject to use vehicle use, industrial activities; or storage of erodible or leachable materials, wastes, or chemicals, and that receive direct rainfall or run-on or blow-in of rainfall, of pesticides and fertilizers or loss of soil. Typical PGPS include permeable pavement subject to vehicular use, lawns and landscaped areas, including golf courses, parks, cemeteries, and sports fields (natural and artificial turf). .

“Post-construction stormwater management controls” or “permanent stormwater management controls” means those controls designed to treat or control runoff on a permanent basis once construction is complete, including stormwater treatment and flow control BMPs /facilities, including detention facilities, bioretention, vegetated roofs, permeable pavements, etc.

“Predevelopment hydrologic condition” and/or “predevelopment hydrology” means the combination of runoff, infiltration and evapotranspiration rates and volumes that typically existed on a site before original development on the site, i.e., a natural stable hydrologic condition.

“QA/QC” means quality assurance/quality control.

“QAP” means Quality Assurance Plan, or Quality Assurance Project Plan.

“Rainfall and Rainwater Harvesting” is the collection, conveyance, and storage of rainwater. The scope, method, technologies, system complexity, purpose, and end uses vary from rain barrels for garden irrigation in urban areas, to large-scale collection of rainwater for all domestic uses.

“Rain Garden” means a non-engineered shallow landscaped depression, with compost-amended native soils and adapted plants. The depression is designed to pond and temporarily store stormwater runoff from adjacent areas, and to allow stormwater to pass through the amended soil profile. Refer to the Rain Garden Handbook for Western Washington Homeowners (WSU 2007 or as revised) for rain garden specifications and construction guidance.

“Receiving waters” means bodies of water or surface water systems to which surface runoff is discharged via a point source of stormwater or via sheet flow. Ground water to which surface runoff is directed by infiltration. See also “waters of the state” and “waters of the United States.”

“Redevelopment” for the purposes of this permit, means the alteration, renewal or restoration of any developed land or property that results in the land disturbance of 5,000 square feet or more, and that has one of the following characteristics: land that currently has an existing structure, such as buildings or houses; or land that is currently covered with an impervious surface, such as a parking lot or roof; or land that is currently degraded and is covered with sand, gravel, stones, or other non-vegetative covering.

“Regional Administrator” means the Regional Administrator of Region 10 of the EPA, or the authorized representative of the Regional Administrator.

“Regulated Construction Activities” include clearing, grading or excavation that results in a land disturbance of greater than or equal to one acre, or that disturbs less than one acre if part of a larger common plan of development or sale that would disturb one acre or more. See “Stormwater Discharge Associated with Construction Activity.”

“Road maintenance” and/or “Repair of Public Streets, Roads and Parking Lots” means repair work on Permittee-owned or Permittee managed streets and parking lots that involves land disturbance including asphalt removal or re-grading of 5,000 square feet or more. This definition excludes the following activities: pot hole and square cut patching; overlaying existing asphalt or concrete paving with asphalt or concrete without expanding the area of coverage; shoulder grading; reshaping or regrading drainage ditches; crack or chip sealing; resurfacing with in-kind material without expanding the road prism, and vegetative maintenance.

“Runoff” see “stormwater.”

“Runoff Reduction Techniques” means the collective assortment of stormwater practices that reduce the volume of stormwater from discharging off site.

“Runway Protection Zone,” as defined in the *Aviation Stormwater Design Manual - Managing Wildlife Hazards Near Airports* (December 2008), means an area off the runway end to enhance the protection of people and property on the ground. See:

<http://www.wsdot.wa.gov/aviation/AirportStormwaterGuidanceManual.htm>

“Runway Safety Area,” as defined in the *Aviation Stormwater Design Manual - Managing Wildlife Hazards Near Airports* (December 2008), means a defined surface surrounding the runway prepared or suitable for reducing the risk of damage to aircraft in the event of an undershoot, overshoot, or excursion from the runway. See:

<http://www.wsdot.wa.gov/aviation/AirportStormwaterGuidanceManual.htm>

“Severe property damage” means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. See 40 CFR §122.41(m)(1)(ii).

“Sewershed” means, for the purposes of this permit, all the land area that is drained by a network of municipal storm sewer system conveyances to a single point of discharge to a water of the United States

“Significant contributor of pollutants” means any discharge that causes or could cause or contribute to an excursion above any Washington water quality standard.

“Small Municipal Separate Storm Sewer System” is defined at 40 CFR §122.26(b)(16) and refers to all separate storm sewers that are owned or operated by the United States, a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under Section 208 of the CWA that discharges to waters of the United States, but is not defined as “large” or “medium” municipal separate storm sewer system. This term includes systems similar to separate storm sewer systems in municipalities such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas such as individual buildings.

“Snow management” means the plowing, relocation and collection of snow and ice.

“Soil amendments” are components added *in situ* or native soils to increase the spacing between soil particles so that the soil can absorb and hold more moisture. The amendment of soils changes various other physical, chemical and biological characteristics so that the soils become more effective in maintaining water quality.

“Source control” means stormwater management practices that control stormwater *before* pollutants have been introduced into stormwater; a structure or operation that is intended to prevent pollutants from coming into contact with stormwater through physical separation of areas or careful management of activities that are sources of pollutants. The 2012 *Stormwater Management Manual for Western Washington* separates source control BMPs into two types. *Structural Source Control BMPs* are physical, structural, or mechanical devices, or facilities that are intended to prevent pollutants from entering stormwater. *Operational BMPs* are non-structural practices that prevent or reduce pollutants from entering stormwater. See Volume IV-*Source Control BMPs* of the 2012 *Stormwater Management Manual for Western Washington* for details.

“Storm event” or “measurable storm event” for the purposes of this permit means a precipitation event that results in an actual discharge from the outfall and which follows the preceding measurable storm event by at least 48 hours (2 days).

“Storm water,” “stormwater” and “stormwater runoff” as used in this permit means runoff during and following precipitation and snow melt events, including surface runoff and drainage, as defined at 40 CFR §122.26(b)(13). Stormwater means that portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, channels, or pipes into a defined surface water channel or a constructed infiltration facility.

“Stormwater Control Measure” means physical, structural, and/or managerial measures that, when used singly or in combination, reduce the downstream quality and quantity impacts of stormwater. Also, SCM means a permit condition used in place of or in conjunction with effluent limitations to prevent or control the discharge of pollutants. This may include a schedule of activities, prohibition of practices, maintenance procedures, or other management practices. SCMs may include, but are not limited to, treatment requirements; operating procedures; practices to control plant site runoff, spillage, leaks, sludge, or waste disposal; or drainage from raw material storage. See “best management practices (BMPs).”

“Stormwater Discharge Associated with Construction Activity” as used in this permit, refers to a discharge of pollutants in stormwater runoff from areas where soil disturbing activities (*e.g.*, clearing, grading, or excavation), construction materials or equipment storage or maintenance (*e.g.*, fill piles, borrow areas, concrete truck washout, fueling) or other industrial stormwater directly related to the construction process are located. (See 40 CFR §122.26(b)(14)(x) and 40 CFR §122.26(b)(15) for the two regulatory definitions of stormwater associated with construction sites.)

“Stormwater Discharge Associated with Industrial Activity” as used in this permit, refers to the discharge from any conveyance that is used for collecting and conveying stormwater and that is directly related to manufacturing, processing or raw materials storage areas at an industrial activity included in the regulatory definition at 40 CFR §122.26(b)(14).

“Stormwater Facility” means a constructed component of a stormwater drainage system, designed or constructed to perform a particular function or multiple functions. Stormwater facilities include, but are not limited to, pipes, swales, ditches, culverts, street gutters, detention basins, retention basins, constructed wetlands, infiltration devices, catch basins, oil/water separators, sediment

basins, and modular pavement. See also “permanent stormwater management controls” and/or “post-construction stormwater management controls.”

“Stormwater Management Practice” or “Storm Water Management Control” means practices that manage stormwater, including structural and vegetative components of a stormwater system.

“Stormwater Management Program (SWMP)” refers to a comprehensive program to manage the quality of stormwater discharged from the municipal separate storm sewer system.

“Stormwater Pollution Prevention Plan (SWPPP)” means a site specific plan designed to describe the control of soil or other materials to prevent pollutants in stormwater runoff, generally developed for a construction site, or an industrial facility. For the purposes of this permit, a SWPPP means a written document that identifies potential sources of pollution, describes practices to reduce pollutants in stormwater discharges from the site, and identifies procedures that the operator will implement to comply with applicable permit requirements.

“Taxiway Safety Area,” as defined in the *Aviation Stormwater Design Manual - Managing Wildlife Hazards Near Airports* (December 2008), means a defined surface alongside the taxiway prepared or suitable for reducing the risk of damage to an aircraft unintentionally departing the taxiway. See: <http://www.wsdot.wa.gov/aviation/AirportStormwaterGuidanceManual.htm>

“TMDL” means Total Maximum Daily Load, an analysis of pollutant loading to a body of water detailing the sum of the individual waste load allocations for point sources and load allocations for non-point sources and natural background. See 40 CFR §130.2.

“Treatment” means storm water management practices that ‘treat’ storm water after pollutants have been incorporated into the stormwater.

“Upset” means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. See 40 CFR §122.42(n)(1)

“Waters of the State” includes those waters as defined as "waters of the United States" in 40 CFR § 122.2 within the geographic boundaries of Washington State and "waters of the state" as defined in Chapter 90.48 RCW which includes lakes, rivers, ponds, streams, inland waters, underground waters, salt waters and all other surface waters and water courses within the jurisdiction of the State of Washington. See also “receiving waters.”

“Waters of the United States” means:

1. All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

2. All interstate waters, including interstate "wetlands";
3. All other waters such as interstate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:
 - a. Which are or could be used by interstate or foreign travelers for recreational or other purposes;
 - b. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
 - c. Which are used or could be used for industrial purposes by industries in interstate commerce;
4. All impoundments of waters otherwise defined as waters of the United States under this definition;
5. Tributaries of waters identified in paragraphs 1 through 4 of this definition;
6. The territorial sea; and
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs 1 through 6 of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA (other than cooling ponds for steam electric generation stations per 40 CFR Part 423) which also meet the criteria of this definition are not waters of the United States. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

“Watershed” is defined as all the land area that is drained by a water body and its tributaries.

“Wetlands” means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Appendix A – Street Waste Disposal (Part II.B.6.d)

Street Waste Solids

Soils generated from maintenance of the MS4 may be reclaimed, recycled or reused when allowed by local codes and ordinances. Soils that are identified as contaminated pursuant to Washington Administrative Code (WAC) Chapter 173-350 shall be disposed at a qualified solid waste disposal facility.

Street Waste Liquids

General Procedures:

Street waste collection should emphasize retention of solids in preference to liquids.

Street waste solids are the principal objective in street waste collection and are substantially easier to store and treat than liquids.

Street waste liquids require treatment before their discharge. Street waste liquids usually contain high amounts of suspended and total solids and adsorbed metals. Treatment requirements depend on the discharge location.

Discharges to sanitary sewer and storm sewer systems must be approved by the entity responsible for operation and maintenance of the system. Neither Washington Department of Ecology nor EPA will generally require waste discharge permits for discharge of stormwater decant to sanitary sewers or to stormwater treatment BMPs that are constructed and maintained in accordance with Department of Ecology's 2012 *Stormwater Management Manual for Western Washington*.

For disposal of catch basin decant liquid and water removed from stormwater treatment facilities, EPA recommends the following, in order of preference:

1. **Discharge of catch basin decant liquids to a municipal sanitary sewer connected to a Public Owned Treatment Works (POTW) is the preferred disposal option.** Discharge to a municipal sanitary sewer requires the approval of the sewer authority. Approvals for discharge to a POTW will likely contain pretreatment, quantity and location conditions to protect the POTW.
2. **Discharge of catch basin decant liquids may be allowed into a Basic or Enhanced Stormwater Treatment BMP, if option 1 is not available.** Decant liquid collected from cleaning catch basins and stormwater treatment wet vaults may be discharged back into the storm sewer system under the following conditions:
 - The preferred disposal option of discharge to sanitary sewer is not reasonably available; and

- The discharge is to a Basic or Enhanced Stormwater Treatment Facility as described by Department of Ecology's 2012 *Stormwater Management Manual For Western Washington*. If pretreatment does not remove visible sheen from oils, the treatment facility must be able to prevent the discharge of oils causing a sheen; and
- The discharge is as near to the treatment facility as is practical, to minimize contamination or recontamination of the collection system; and
- The storm sewer system owner/operator has granted approval and has determined that the stormwater treatment facility will accommodate the increased loading. Pretreatment conditions to protect the stormwater treatment BMP may be issued as part of the approval process. Following local pretreatment conditions is a requirement of this permit.
- Flocculants for the pretreatment of catch basin decant liquids must be non-toxic under the circumstances of use and must be approved in advance by EPA Region 10.

The reasonable availability of sanitary sewer discharge will be determined by the Permittee, by evaluating such factors as distance, time of travel, load restrictions, and capacity of the stormwater treatment facility.

3. **Water removed from stormwater ponds, vaults and oversized catch basins may be returned to the storm sewer system.** Stormwater ponds, vaults and oversized catch basins contain substantial amounts of liquid, which hampers the collection of solids and pose problems if the removed waste must be hauled away from the site. Water removed from these facilities may be discharged back into the pond, vault or catch basin provided:

- Clear water removed from a stormwater treatment structure may be discharged directly to a down gradient cell of a treatment pond or into the storm sewer system.
- Turbid water may be discharged back into the structure it was removed from if
 - the removed water has been stored in a clean container (eductor truck, Baker tank or other appropriate container used specifically for handling stormwater or clean water); and
 - There will be no discharge from the treatment structure for at least 24 hours. If discharging to a pond, vault or catch basin that is not owned or operated by the Permittee,
- The discharge must be approved by the storm sewer system owner/operator.

Appendix B - Runoff Treatment Requirements for New Development and Redevelopment Project Sites (Part II.B.5.g)

Project Thresholds

The following projects require the construction of stormwater treatment facilities:

- Projects in which the total area of pollution-generating hard surface (PGHS) is 5,000 square feet or more, or
- Projects in which the total area of pollution-generating pervious surfaces (PGPS) - not including permeable pavements - is three-quarters (3/4) of an acre or more; and from which there will be a surface discharge in a natural or man-made conveyance system from the site.

Treatment-Type Thresholds

1. Oil Control:

Treatment to achieve Oil Control applies to projects that have “high-use sites.” High-use sites are those that typically generate high concentrations of oil due to high traffic turnover or the frequent transfer of oil. High-use sites include:

- a. An area of a commercial or industrial site subject to an expected average daily traffic (ADT) count equal to or greater than 100 vehicles per 1,000 square feet of gross building area;
- b. An area of a commercial or industrial site subject to petroleum storage and transfer in excess of 1,500 gallons per year, not including routinely delivered heating oil;
- c. An area of a commercial or industrial site subject to parking, storage or maintenance of 25 or more vehicles that are over 10 tons gross weight (trucks, buses, trains, heavy equipment, etc.);
- d. A road intersection with a measured ADT count of 25,000 vehicles or more on the main roadway and 15,000 vehicles or more on any intersecting roadway, excluding projects proposing primarily pedestrian or bicycle use improvements.

2. Phosphorus Treatment:

The requirement to provide phosphorous control is determined by the Department of Ecology (for example, through a waste load allocation as part of an EPA approved Total Maximum Daily Load [TMDL] analysis). There is currently no EPA approved TMDL for American Lake, although it is a water body reported under section 305(b) of the Clean Water Act, and is designated by the State of Washington as not supporting beneficial uses due to phosphorous. The Permittee should consider phosphorus treatment for any

discharges from new development or redevelopment projects that will discharge to American Lake.

3. Enhanced Treatment:

Except where specified under Appendix B4, *Basic Treatment*, enhanced treatment for reduction in dissolved metals is required for the following project sites that 1) discharge directly to freshwaters or conveyance systems tributary to freshwaters designated for aquatic life use or that have an existing aquatic life use; or 2) use infiltration strictly for flow control – not treatment- and the discharge is within ¼ mile of a freshwater designated for aquatic life use or that has an existing aquatic life use:

Industrial project sites,
Commercial project sites,
Multi-family project sites, and
High AADT roads as follows:

- Roads with an AADT of 15,000 or greater unless discharging to a 4th Strahler order stream or larger;
- Roads with an AADT of 30,000 or greater if discharging to a 4th Strahler order stream or larger (as determined using 1:24,000 scale maps to delineate stream order).

Any areas of the above-listed project sites that are identified as being subject to Basic Treatment requirements (below) are not also subject to Enhanced Treatment requirements. For developments with a mix of land use types, the Enhanced Treatment requirement shall apply when the runoff from the areas subject to the Enhanced Treatment requirement comprise 50% or more of the total runoff.

4. Basic Treatment:

Basic Treatment is required for each of the following circumstances:

- Project sites that discharge to the ground, UNLESS:
 - 1) The soil suitability criteria for infiltration treatment are met; (see Chapter 3 of Volume III-*Hydrologic Analysis and Flow Control BMPs* of the 2012 *Stormwater Management Manual for Western Washington*) and alternative pretreatment is provided (see Chapter 6, Volume V-*Runoff Treatment BMPs* of the 2012 *Stormwater Management Manual for Western Washington*) or
 - 2) The project site uses infiltration strictly for flow control – not treatment - and the discharge is within ¼-mile of a phosphorus sensitive lake (use a Phosphorus Treatment facility), or

3) The project site is industrial, commercial, multi-family residential, or a high AADT road (consistent with the Enhanced Treatment-type thresholds listed above) and is within ¼ mile of a fresh water designated for aquatic life use or that has an existing aquatic life use.(use an Enhanced Treatment facility).

- Residential projects not otherwise needing phosphorus control as designated by USEPA, the Department of Ecology, or by the Permittee;
- Project sites discharging directly (or indirectly through a MS4) to Basic Treatment Receiving Waters (Appendix I-C of the 2012 *Western Washington Stormwater Management Manual*)
- Project sites that drain to freshwater that is not designated for aquatic life use, and does not have an existing aquatic life use; and project sites that drain to waters not tributary to waters designated for aquatic use or that have an existing aquatic life use;
- Landscaped areas of industrial, commercial, and multi-family project sites, and parking lots of industrial and commercial project sites that do not involve pollution-generating sources (e.g., industrial activities, customer parking, storage of erodible or leachable material, wastes or chemicals) other than parking of employees' private vehicles. For developments with a mix of land use types, the Basic Treatment requirement shall apply when the runoff from the areas subject to the Basic Treatment requirement comprise 50% or more of the total runoff.

Treatment Facility Sizing

Size all stormwater treatment facilities for the entire area that drains to them, even if some of those areas are not pollution-generating.

Water Quality Design Storm Volume: The volume of runoff predicted from a 24-hour storm with a 6-month return frequency (a.k.a., 6-month, 24-hour storm). Wetpool facilities are sized based upon the volume of runoff predicted through use of the Natural Resource Conservation Service curve number equations in Chapter 2 of Volume III-*Hydrologic Analysis and Flow Control BMPs* of the 2012 *Stormwater Management Manual for Western Washington*, for the 6-month, 24-hour storm. Alternatively, when using an approved continuous runoff model, the water quality design storm volume shall be equal to the simulated daily volume that represents the upper limit of the range of daily volumes that accounts for 91% of the entire runoff volume over a multi-decade period of record.

Water Quality Design Flow Rate

1. Preceding Detention Facilities or when Detention Facilities are not required:

The flow rate at or below which 91% of the runoff volume, (as estimated by an approved continuous runoff model) will be treated. Design criteria for treatment facilities are assigned to achieve the applicable performance goal (e.g., 80% TSS removal) at the water quality design flow rate. At a minimum, 91% of the total runoff volume, as estimated by an approved continuous runoff model, must pass through the treatment facility(ies) at or below the approved hydraulic loading rate for the facility(ies).

2. Downstream of Detention Facilities:

The water quality design flow rate must be the full 2-year release rate from the detention facility.

Treatment Facility Selection, Design, and Maintenance

Stormwater treatment facilities must be:

- Selected in accordance with the process identified in Chapter 4 of Volume I, and Chapter 2 of Volume V-*Runoff Treatment BMPs* of the 2012 *Stormwater Management Manual for Western Washington* ,
- Designed in accordance with the design criteria in Volume V- *Runoff Treatment BMPs* of the 2012 *Stormwater Management Manual for Western Washington*, and
- Maintained in accordance with the maintenance schedule in Volume V- *Runoff Treatment BMPs* of the 2012 *Stormwater Management Manual for Western Washington*.

Additional Requirements

The discharge of untreated stormwater from pollution-generating hard surfaces to ground water must not be authorized by the Permittee, except for the discharge achieved by infiltration or dispersion of runoff through use of On-site Stormwater Management BMPs in accordance with Chapter 5, and Chapter 7, Volume V-*Runoff Treatment BMPs* of the 2012 *Stormwater Management Manual for Western Washington*; or by infiltration through soils meeting the soil suitability criteria in Chapter 3 of Volume III-*Hydrologic Analysis and Flow Control BMPs* of the 2012 *Stormwater Management Manual for Western Washington*.

Appendix C - Exemptions from the New Development and Redevelopment Requirements of Part II.B.5

Unless otherwise indicated in this Appendix the practices described in this Appendix are exempt from the New Development and Redevelopment Requirements of Part II.B.5, even if such practices meet the definition of new development or redevelopment site disturbance thresholds.

1. Forest practices:

Forest practices regulated under Title 222 WAC, except for Class IV General forest practices that are conversions from timber land to other uses, are exempt from the provisions of Part II.B.5.

2. Commercial agriculture:

Commercial agriculture practices involving working the land for production are generally exempt. However, the conversion from timberland to agriculture, and the construction of impervious surfaces are not exempt. *Commercial Agriculture* means those activities conducted on lands defined in Revised Code of Washington (RCW) 84.34.020(2) and activities involved in the production of crops or livestock for commercial trade. An activity ceases to be considered commercial agriculture when the area on which it is conducted is proposed for conversion to a nonagricultural use or has lain idle for more than five years, unless the idle land is registered in a federal or state soils conservation program, or unless the activity is maintenance of irrigation ditches, laterals, canals, or drainage ditches related to an existing and ongoing agricultural activity.

3. Oil and Gas Field Activities or Operations:

Construction of drilling sites, waste management pits, and access roads, as well as construction of transportation and treatment infrastructure such as pipelines natural gas treatment plants, natural gas pipeline compressor stations, and crude oil pumping stations are exempt.

4. Pavement Maintenance:

The following pavement maintenance practices are exempt: pothole and square cut patching, overlaying existing asphalt or concrete pavement with asphalt or concrete without expanding the area of coverage, shoulder grading, reshaping/regrading drainage systems, crack sealing, resurfacing with in-kind material without expanding the road prism, pavement preservation activities that do not expand the road prism, and vegetation maintenance.

The following pavement maintenance practices are not categorically exempt – they are considered redevelopment. The extent to which Part II.B.5 applies is explained for each circumstance.

- *Removing and replacing a paved surface to base course or lower, or repairing the pavement base:* If impervious areas are not expanded, the requirements of Part II.B.5.a through B.5.e apply.
- *Extending the pavement edge without increasing the size of the road prism, or paving graveled shoulders:* These are considered new impervious surfaces and are subject to the requirements of Part II.B.5.

- *Resurfacing by upgrading from dirt to gravel, asphalt, or concrete; upgrading from gravel to asphalt, or concrete; or upgrading from a bituminous surface treatment (“chip seal”) to asphalt or concrete:* These are considered new impervious surfaces and are subject to the requirements of Part II.B.5.

5. Underground utility projects:

Underground utility projects that replace the ground surface with in-kind material or materials with similar runoff characteristics are not subject to the requirements of Part II.B.5.

6. Exemptions from the Hydrologic Performance Standard for Onsite Stormwater Management (Part II.B.5.e):

The Permittee may exempt a new development or redevelopment project site from retaining the total volume of runoff calculated to meet the hydrologic performance standard for onsite stormwater management in Part II.B.5.e , provided the Permittee fully documents its determination that compliance with the performance standard is not technically feasible.

The Permittee must keep written records of all exempt project determinations. The following information regarding each exempt project identified during an annual reporting period must be included in the corresponding Annual Report.

- Name, location and identifying project description.
- For projects where the Permittee determines it is technically infeasible to use stormwater management strategies to fully infiltrate, evapotranspire, and/or harvest and reuse 100% of the runoff volumes calculated to meet the performance standard in Part II.B.5.e, the Permittee must document the reasons for such conclusion.
- The Permittee must use all reasonably available stormwater management techniques. to the maximum extent practicable, and must document both the estimated annual runoff volume that can/will be successfully managed on site and the remaining annual runoff volume for which it is deemed technically infeasible to successfully manage onsite.

Documentation supporting the Permittee’s determination of technical infeasibility must include, but is not limited to, reference to the infeasibility criteria for onsite stormwater management practices contained in Volume V- *Runoff Treatment BMPs of Ecology’s 2012 Stormwater Management Manual for Western Washington*;; and all relevant engineering calculations, geologic reports, and/or hydrologic analysis. Examples of site conditions which may be recognized by the Permittee as preventing management of 100% of the runoff volumes calculated to meet the performance standard in Part II.B.5.e may include, but are not limited to: low soil infiltration capacity; high groundwater; contaminated soils; non-potable water demand is too small to warrant harvest and reuse systems; downgradient erosion; steep slopes and/or slope failure; or flooding.

7. Exemptions from the Hydrologic Performance Requirement for Flow Control (Part II.B.5.f):

The Permittee may exempt a new development or redevelopment project from managing the total runoff flow volume calculated to meet the hydrologic performance standard in Part II.B.5.f, provided the Permittee fully documents its determination that compliance with the hydrologic performance requirement for flow control cannot be attained due to severe economic project costs.

The Permittee must manage as much of the calculated flow volume as possible, and must keep written records of all such project determinations.

No later than 15 days from the date the Permittee makes a determination that a project should be exempt from the hydrologic performance requirement for flow control due to severe economic costs, the Permittee must provide a written summary of the following information describing each new development and/or redevelopment project site exempted from the flow control requirement, and submit such information to EPA via certified mail and via electronic mail to the EPA Region 10 address listed in Part IV.D of this permit:

- Name, location and identifying project description, including a brief synopsis of the project purpose, and a detailed description of the underlying facts supporting the Permittee's determination.
- For projects where managing the total runoff flow volume calculated to meet the hydrologic performance requirement for flow control in Part II.B.5. f. is deemed by the Permittee to be unattainable due to severe economic costs, the Permittee must document, and quantify that appropriate stormwater control strategies will be deployed to manage as much of the calculated flow volume as possible; the marginal cost of full attainment must be documented along with a justification on why full attainment of the flow control requirement at the site would result in severe economic cost.

Appendix D - Vicinity Map of JBLM Installation



ATTACHMENT 3

NPDES Permit No. DC0000221

**AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
MUNICIPAL SEPARATE STORM SEWER SYSTEM PERMIT**

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §§ 1251 *et seq.*

Government of the District of Columbia
The John A. Wilson Building
1350 Pennsylvania Avenue, N.W.
Washington, D.C. 20004

is authorized to discharge from all portions of the municipal separate storm sewer system owned and operated by the District of Columbia to receiving waters named:

Potomac River, Anacostia River, Rock Creek and stream segments
tributary to each such water body

in accordance with the Stormwater Management Program(s) dated February 19, 2009,
subsequent updates, and related reports, strategies, effluent limitations, monitoring requirements
and other conditions set forth in Parts I through IX herein.

The effective issuance date of this permit is: October 7, 2011.

This permit and the authorization to discharge shall expire at midnight, on: October 7, 2016.

Signed this 30th day of September, 2011.



Jon M. Capacasa, Director
Water Protection Division
U.S. Environmental Protection Agency
Region III

PERMIT FOR THE DISTRICT OF COLUMBIA
MUNICIPAL SEPARATE STORM SEWER SYSTEM

TABLE OF CONTENTS

1. DISCHARGES AUTHORIZED UNDER THIS PERMIT
 - 1.1 Permit Area
 - 1.2 Authorized Discharges
 - 1.3 Limitations on Coverage
 - 1.3.1. Non-stormwater Discharges
 - 1.3.2. Waivers and Exemptions
 - 1.4 Discharge Limitations

2. LEGAL AUTHORITY, RESOURCES, AND STORMWATER PROGRAM ADMINISTRATION
 - 2.1 Legal Authority
 - 2.2 Fiscal Resources
 - 2.3 Stormwater Management Program Administration/Permittee Responsibilities

3. STORMWATER MANAGEMENT PROGRAM (SWMP) PLAN
 - Table 1: Elements Requiring EPA Review and Approval
 - Table 2: Legal Authority for Selected Required Stormwater Program Elements

4. IMPLEMENTATION OF STORMWATER CONTROL MEASURES
 - 4.1 Standard for Long-Term Stormwater Management
 - 4.1.1 Standard for Stormwater Discharges from Development
 - 4.1.2 Code and Policy Consistency, Site Plan Review, Verification and Tracking
 - 4.1.3 Off-Site Mitigation and/or Fee-in-Lieu
 - 4.1.4 Green Landscaping Incentives Program
 - 4.1.5 Retrofit Program for Existing Discharges
 - 4.1.6 Tree Canopy
 - 4.1.7 Green Roof Projects
 - 4.2 Operation and Maintenance of Retention Practices
 - 4.2.1 District Owned and Operated Practices
 - 4.2.2 Non-District Owned and Operated Practices
 - 4.2.3 Stormwater Management Guidebook and Training
 - 4.3 Management of District Government Areas
 - 4.3.1 Sanitary Sewage System Maintenance Overflow and Spill Prevention Response
 - 4.3.2 Public Construction Activities Management.
 - 4.3.3 Vehicle Maintenance/Material Storage Facilities/Municipal Operations
 - 4.3.4 Landscape and Recreational Facilities Management, Pesticide, Herbicide, Fertilizer and Landscape Irrigation
 - 4.3.5 Storm Drain System Operation and Management and Solids and Floatables Reduction

- 4.3.6 Streets, Alleys and Roadways
 - Table 3: Street Sweeping
- 4.3.7 Infrastructure Maintenance/Pollution Source Control
 - Maintenance
- 4.3.8 Public Industrial Activities Management/Municipal and Hazardous
 - Facilities
- 4.3.9 Emergency Procedures
- 4.3.10 Municipal Official Training
- 4.4 Management of Commercial and Institutional Areas
 - 4.4.1 Inventory of Critical Sources and Source Controls
 - 4.4.2. Inspection of Critical Sources
 - 4.4.3. Compliance Assurance
- 4.5 Management of Industrial Facilities and Spill Prevention
- 4.6 Management of Construction Activities
- 4.7 Management of Illicit Discharges and Improper Disposal
- 4.8 Flood Control Projects
- 4.9 Public Education and Participation
 - 4.9.1. Education and Outreach
 - 4.9.2. Measurement of Impacts
 - 4.9.3. Recordkeeping
 - 4.9.4. Public Involvement and Participation
- 4.10. Total Maximum Daily Load (TMDL) Wasteload Allocation (WLA) Planning and
 - Implementation
 - 4.10.1 Anacostia River Watershed Trash TMDL Implementation
 - 4.10.2 Hickey Run TMDL Implementation
 - 4.10.3 Consolidated TMDL Implementation Plan
 - 4.10.4 Adjustments to TMDL Implementation Strategies
- 4.11 Additional Pollutant Sources

5. MONITORING AND ASSESSMENT OF CONTROLS

- 5.1 Revised Monitoring Program
 - 5.1.1 Design of the Revised Monitoring Program
 - Table 4: Monitoring Parameters
 - 5.1.2 Utilization of the Revised Monitoring Program
- 5.2. Interim Monitoring
 - 5.2.1. Wet Weather Discharge Monitoring
 - Table 5: Monitoring Stations
 - 5.2.2 Storm Event Data
 - 5.2.3 Sample Type, Collection, and Analysis
 - 5.2.4 Sampling Waiver
- 5.3 Dry Weather Monitoring
 - 5.3.1 Dry Weather Screening Program
 - 5.3.2 Screening Procedures
 - 5.3.3 Follow-up on Dry Weather Screening Results
- 5.4 Area and/or Source Identification Program
- 5.5 Flow Measurements

- 5.6 Monitoring and Analysis Procedures
- 5.7 Reporting of Monitoring Results
- 5.8 Additional Monitoring by the permittee
- 5.9 Retention of Monitoring Information
- 5.10 Record Contents

- 6. REPORTING REQUIREMENTS
 - Table 6: Reporting Requirements
 - 6.1 Discharge Monitoring Reports
 - 6.2 Annual Reporting
 - 6.2.1 Annual Report
 - 6.2.2 Annual Report Meeting
 - 6.2.3 Annual Report Revisions
 - 6.2.4 Signature and Certification
 - 6.2.5 EPA Approval
 - 6.3 MS4 Permit Application

- 7. STORMWATER MODEL

- 8. STANDARD PERMIT CONDITIONS FOR NPDES PERMITS
 - 8.1 Duty to Comply
 - 8.2 Inspection and Entry
 - 8.3 Civil and Criminal Penalties for Violations of Permit Conditions
 - 8.4 Duty to Mitigate
 - 8.5 Permit Actions
 - 8.6 Retention of Records
 - 8.7 Signatory Requirements
 - 8.8 Oil and Hazardous Substances Liability
 - 8.9 District Laws, Regulations and Ordinances
 - 8.10 Property Rights
 - 8.11 Severability
 - 8.12 Transfer of Permit
 - 8.13 Construction Authorization
 - 8.14 Historic Preservation
 - 8.15 Endangered Species
 - 8.16 Toxic Pollutants
 - 8.17 Bypass
 - 8.17.1 Bypass not exceeding limitations
 - 8.17.2 Notice
 - 8.17.3 Prohibition of bypass
 - 8.18 Upset
 - 8.19 Reopener Clause for Permits
 - 8.20 Duty to Reapply

- 9. PERMIT DEFINITIONS

1. DISCHARGES AUTHORIZED UNDER THIS PERMIT

1.1 Permit Area

This permit covers all areas within the jurisdictional boundary of the District of Columbia served by, or otherwise contributing to discharges from, the Municipal Separate Storm Sewer System (MS4) owned or operated by the District of Columbia. This permit also covers all areas served by or contributing to discharges from MS4s owned or operated by other entities within the jurisdictional boundaries of the District of Columbia unless those areas have separate NPDES MS4 permit coverage or are specifically excluded herein from authorization under the District's stormwater program. Hereinafter these areas collectively are referred to as "MS4 Permit Area".

1.2 Authorized Discharges

This permit authorizes all stormwater point source discharges to waters of the United States from the District of Columbia's MS4 that comply with the requirements of this permit. This permit also authorizes the discharge of stormwater commingled with flows contributed by process wastewater, non-process wastewater, or stormwater associated with industrial activity provided such discharges are authorized under separate NPDES permits.

This permit authorizes the following non-stormwater discharges to the MS4 when appropriate stormwater activities and controls required through this permit have been applied and which are: (1) discharges resulting from clear water flows, roof drainage, dechlorinated water line flushing, landscape irrigation, ornamental fountains, diverted stream flows, rising ground waters, uncontaminated ground water infiltration to separate storm sewers, uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation waters, springs, footing drains, lawn watering, individual resident car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, wash water, fire fighting activities, and similar types of activities; and (2) which are managed so that water quality is not further impaired and that the requirements of the federal Clean Water Act, 33 U.S.C. §§ 1251 *et seq.*, and EPA regulations are met.

1.3 Limitations to Coverage

1.3.1 Non-stormwater Discharges

The permittee, as defined herein, shall effectively prohibit non-stormwater discharges into the MS4, except to the extent such discharges are regulated with an NPDES permit.

1.3.2 Waivers and Exemptions

This permit does not authorize the discharge of any pollutant from the MS4 which arises from or is based on any existing waivers and exemptions that may otherwise apply and are not consistent with the Federal Clean Water Act and other pertinent guidance, policies, and regulations. This narrative prohibition on the applicability of such waivers and exemptions extends to any activity that would otherwise be authorized under District law, regulations or

ordinance but which impedes the reduction or control of pollutants through the use of stormwater control measures and/or prevents compliance with the narrative /numeric effluent limits of this permit. Any such discharge not otherwise authorized may constitute a violation of this permit.

1.4 Discharge Limitations

The permittee must manage, implement and enforce a stormwater management program (SWMP) in accordance with the Clean Water Act and corresponding stormwater NPDES regulations, 40 C.F.R. Part 122, to meet the following requirements:

1.4.1. Effectively prohibit pollutants in stormwater discharges or other unauthorized discharges into the MS4 as necessary to comply with existing District of Columbia Water Quality Standards (DCWQS);

1.4.2. Attain applicable wasteload allocations (WLAs) for each established or approved Total Maximum Daily Load (TMDL) for each receiving water body, consistent with 33 U.S.C. § 1342(p)(3)(B)(iii); 40 C.F.R. § 122.44(k)(2) and (3); and

1.4.3. Comply with all other provisions and requirements contained in this permit, and in plans and schedules developed in fulfillment of this permit.

Compliance with the performance standards and provisions contained in Parts 2 through 8 of this permit shall constitute adequate progress toward compliance with DCWQS and WLAs for this permit term.

2. LEGAL AUTHORITY, RESOURCES AND STORMWATER PROGRAM ADMINISTRATION

2.1 Legal Authority

2.1.1 The permittee shall use its existing legal authority to control discharges to and from the Municipal Separate Storm Sewer System in order to prevent or reduce the discharge of pollutants to achieve water quality objectives, including but not limited to applicable water quality standards. To the extent deficiencies can be addressed through regulation or other Executive Branch action, the permittee shall remedy such deficiencies within 120 days. Deficiencies that can only be addressed through legislative action shall be remedied within 2 years of the effective date of this permit, except where otherwise stipulated, in accordance with the District's legislative process. Any changes to or deficiencies in the legal authority shall be explained in each Annual Report.

2.1.2 No later than 18 months following the effective date of this permit, the District shall update and implement Chapter 5 of Title 21 of District of Columbia Municipal Regulations (Water Quality and Pollution) ("updated DC Stormwater Regulations"), to address the control of stormwater throughout the MS4 Permit Area. Such regulations shall be consistent with this

permit, and shall be at least as protective of water quality as the federal Clean Water Act and its implementing regulations require.

2.1.3 The permittee shall ensure that the above legal authority in no way restricts its ability to enter into inter-jurisdictional agreements with other District agencies and/or other jurisdictions affected through this permit.

2.1.4 Review and revise, where applicable, building, health, road and transportation, and other codes and regulations to remove barriers to, and facilitate the implementation of the following standards: (1) standards resulting from issuance of District stormwater regulations required by Section 2.1, paragraph 1 herein; and (2) performance standards required by this permit.

2.2 Fiscal Resources

The permittee, including all agencies and departments of the District as specified in section 2.3 below, shall provide adequate finances, staff, equipment and support capabilities to implement the existing Stormwater Management Program (SWMP) and the provisions of this permit. For the core program the District shall provide a dedicated funding source. Each annual report under Part 6 of this permit shall include a demonstration of adequate fiscal capacity to meet the requirements of this permit.

2.3 Stormwater Management Program Administration/Permittee Responsibilities

2.3.1 The Government of the District of Columbia is the permittee, and all activities of all agencies, departments, offices and authorities of the District must comply with the requirements of this permit. The permittee has designated the District Department of the Environment (DDOE) as the agency responsible for managing the MS4 Stormwater Management Program and all activities necessary to comply with the requirements of this permit and the Comprehensive Stormwater Management Enhancement Amendment Act of 2008 by coordinating and facilitating a collaborative effort among other city agencies and departments including but not limited to departments designated as "Stormwater Agencies" by the Comprehensive Stormwater Management Enhancement Amendment Act of 2008:

District Department of Transportation (DDOT);
Department of Public Works (DPW);
Office of Planning (OP);
Office of Public Education Facilities Modernization (OPEFM);
Department of Real Estate Services (DRES);
Department of Parks and Recreation; and
DC Water and Sewer Authority (also known as and hereinafter referred to as DC Water).

Each named entity is responsible for complying with those elements of the permit within its jurisdictional scope and authorities.

2.3.2 DDOE shall coordinate, and all agencies, offices, departments and authorities shall implement provisions of the existing MS4 Task Force Memorandum of Understanding (MOU) dated 2000, updated matrix of responsibilities (January 2008), any subsequent updates, and other institutional agreements to coordinate compliance activities among agency partners to implement the provisions of this permit. DDOE's major responsibilities under these MOUs and institutional agreements shall include:

1. Convening regular meetings and communication with MS4 Task Force agencies and other committees established to implement this permit to budget, assign and implement projects, and monitor, inspect and enforce all activities required by the MS4 permit.
2. Providing technical and administrative support for the MS4 Task Force and other committees established to implement this permit
3. Evaluating, assessing, and synthesizing results of the monitoring and assessment programs and the effectiveness of the implementation of management practices and coordinating necessary adjustments to the stormwater management program in order to ensure compliance.
4. Coordinating the completion and submission of all deliverables required by the MS4 Permit.
5. Projecting revenue needs to meet MS4 Permit requirements, overseeing the District's stormwater fees to fulfill revenue needs, and coordinating with DC Water to ensure the District's stormwater fee is collected.
6. Making available to the public and other interested and affected parties, the opportunity to comment on the MS4 stormwater management program.

2.3.3 Within 180 days of permit issuance, the permittee shall complete an assessment of additional governmental agencies and departments, non-governmental organizations, watershed groups or other community organizations in the District and adjacent states to partner with to administer required elements of the permit. Intra- and inter-agency agreements between relevant governmental and nongovernmental organizations shall be established to ensure successful coordination and implementation of stormwater management activities in accordance with the requirements of this permit. Additional government and nongovernmental organizations and programs to consider include; land use planning, brownfields redevelopment, fire department, building and safety, public health, parks and recreation, and federal departments and agencies, including but not limited to, the National Park Service, Department of Agriculture, Department of Defense, and General Services Administration, responsible for facilities in the District.

3. STORMWATER MANAGEMENT PROGRAM (SWMP) PLAN

The permittee shall continue to implement, assess and upgrade all of the controls, procedures and management practices, described in this permit, and in the SWMP dated

February 19, 2009, and any subsequent updates. This Program has been determined to reduce the discharge of pollutants to the maximum extent practicable. The Stormwater Management Program is comprised of all requirements in this permit. All existing and new strategies, elements, initiatives, schedules or programs required by this permit must be documented in the SWMP Plan, which shall be the consolidated document of all stormwater program elements. Updates to the plan shall be consistent with all compliance deadlines in this permit. A current plan shall be posted on the District's website at an easily accessible location at all times.

New Stormwater Management Program strategies, elements, initiatives and plans required to be submitted to EPA for review and approval are included in Table 1.

TABLE 1
Elements Requiring EPA Review and/or Approval

Element	Submittal Date (from effective date of this permit)
Anacostia River Watershed Trash Reduction Calculation Methodology (4.10)	1 year
Catch Basin Operation and Maintenance Plan (4.3.5.1)	18 months
Outfall Repair Schedule (4.3.5.3)	18 months
Off-site Mitigation/Payment-in-Lieu Program (4.1.3)	18 months
Retrofit Program (4.1.6)	2 years
Consolidated TMDL Implementation Plan (4.10.3)	2 years
Revised Monitoring Program (5.1)	2 years
Revised Stormwater Management Program Plan (3)	4 years

No later than 3 years from the issuance date of this permit the permittee shall public notice a fully updated Plan including all of the elements required in this permit. No later than 4 years from the issuance date of this permit the permittee shall submit to EPA the fully updated plan for review and approval, as part of the application for permit renewal.

The measures required herein are terms of this permit. These permit requirements do not prohibit the use of 319(h) funds for other related activities that go beyond the requirements of this permit, nor do they prohibit other sources of funding and/or other programs where legal or contractual requirements preclude direct use for stormwater permitting activities.

TABLE 2
Legal Authority for Selected Required Program Stormwater Elements

Required Program Application Element	Regulatory References
Adequate Legal Authority	40 C.F.R. § 122.26(d)(2)(I)(C)-(F)

Green technology stormwater management practices, which incorporate technologies and practices across District activities.	Chapter 5 of Title 21 of District of Columbia Municipal Regulations (Water Quality and Pollution)
Existing Structural and Source Controls	40 C.F.R. § 122.26(d)(2)(iv)(A)(1)
Roadways	40 C.F.R. § 122.26(d)(2)(iv)(A)(3)
Pesticides, Herbicides, and Fertilizers Application	40 C.F.R. § 122.26(d)(2)(iv)(A)(6)
Municipal Waste Sites	40 C.F.R. § 122.26(d)(2)(iv)(A)(5)
Spill Prevention and Response	40 C.F.R. § 122.26(d)(2)(iv)(B)(4)
Infiltration of Seepage	40 C.F.R. § 122.26(d)(2)(iv)(B)(7)
Stormwater Management Program for Commercial and Residential Areas	40 C.F.R. § 122.26(d)(2)(iv)(A)
Manage Critical Source Areas	40 C.F.R. § 122.26(d)(iii)(B)(6)
Stormwater Management for Industrial Facilities	40 C.F.R. § 122.26(d)(2)(iv)(C)
Industrial and High Risk Runoff	40 C.F.R. § 122.26(d)(2)(iv)(C), (iv)(A)(5)
Identify Priority Industrial Facilities	40 C.F.R. § 122.26(d)(2)(iv)(C)(1)
Illicit Discharges and Improper Disposal	40 C.F.R. § 122.26(d)(2)(iv)(B)(1)-(5), (iv)(B)(7)
Flood Control Projects	40 C.F.R. § 122.26(d)(2)(iv)(A)(4)
Public Education and Participation	40 C.F.R. § 122.26(d)(2)(iv)(A)(6), (iv)(B)(5), (iv)(B)(6)

Monitoring and Assessment and Reporting	40 C.F.R. § 122.26(d)(2)(iv)(D)(v)
Monitoring Program	40 C.F.R. § 122.26(d)(2)(iv)(B)(2), (iii), iv(A), (iv)(C)(2)
Characterization Data	40 C.F.R. § 122.26(d)(2)(iii)(B)-(D), 40 C.F.R. § 122.21(g)(7)
Reporting	40 C.F.R. § 122.41(l)

4. IMPLEMENTATION OF STORMWATER CONTROL MEASURES

4.1 Standard for Long-Term Stormwater Management

The permittee shall continue to develop, implement, and enforce a program in accordance with this permit and the permittee's updated SWMP Plan that integrates stormwater management practices at the site, neighborhood and watershed levels that shall be designed to mimic pre-development site hydrology through the use of on-site stormwater retention measures (e.g., harvest and use, infiltration and evapotranspiration), through policies, regulations, ordinances and incentive programs

4.1.1 Standard for Stormwater Discharges from Development

No later than 18 months following issuance of this permit, the permittee shall, through its Updated DC Stormwater Regulations or other permitting or regulatory mechanisms, implement one or more enforceable mechanism(s) that will adopt and implement the following performance standard for all projects undertaking development that disturbs land greater than or equal to 5,000 square feet:

Require the design, construction and maintenance of stormwater controls to 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 and use for all development greater than or equal to 5,000 square feet.

The District may allow a portion of the 1.2" volume to be compensated for in a program consistent with the terms and requirements of Part 4.1.3.

4.1.2 Code and Policy Consistency, Site Plan Review, Verification and Tracking

By the end of this permit term the District must review and revise, as applicable, stormwater, building, health, road and transportation, and other codes and regulations to remove barriers to, and facilitate the implementation of the retention performance standard required in

Section 4.1.1. The District must also establish/update and maintain a formal process for site plan reviews and a post-construction verification process (e.g., inspections, submittal of as-builts) to ensure that standards are appropriately implemented. The District must also track the on-site retention performance of each project subject to this regulatory requirement.

4.1.3 Off-Site Mitigation and/or Fee-in Lieu for all Facilities

Within 18 months of the effective date of this permit the District shall develop, public notice, and submit to EPA for review and comment an off-site mitigation and/or fee-in-lieu program to be utilized when projects will not meet stormwater management performance standard as defined in Section 4.1.1. The District has the option of implementing an off-site mitigation program, a fee-in-lieu program, or both. Any allowance for adjustments to the retention standard shall be defined in the permittee's regulations. The program shall include at a minimum:

1. Establishment of baseline requirements for on-site retention and for mitigation projects. On-site volume plus off-site volume (or fee-in-lieu equivalent or other relevant credits) must equal no less than the relevant volume in Section 4.1.1;
2. Specific criteria for determining when compliance with the performance standard requirement for on-site retention cannot technically be met based on physical site constraints, or a rationale for why this is not necessary;
3. For a fee-in-lieu program, establishment of a system or process to assign monetary values at least equivalent to the cost of implementation of controls to account for the difference in the performance standard, and the alternative reduced value calculated; and
4. The necessary tracking and accounting systems to implement this section, including policies and mechanisms to ensure and verify that the required stormwater practices on the original site and appropriate required off-site practices stay in place and are adequately maintained.

The program may also include incentives for achieving other important environmental objectives such as ongoing measurable carbon sequestration, energy savings, air quality reductions in green house gases, or other environmental benefits for which the program can develop methods for quantifying and documenting those outcomes. Controls implemented to achieve those outcomes are subject to the same level of site plan review, inspection, and operation and maintenance requirements as stormwater controls.

District-owned transportation right-of-way projects are subject to a similarly stringent process for determining an alternate performance volume, but for the duration of this permit term need not conduct off-site mitigation or pay into a fee-in-lieu program to compensate for the difference.

4.1.4 Green Landscaping Incentives Program

No later than one year following permit issuance, the permittee shall develop an incentive program to increase the quantity and quality of planted areas in the District while allowing flexibility for developers and designers to meet development standards. The Incentive Program

shall use such methods as a scoring system to encourage green technology practices such as larger plants, permeable paving, green roofs, vegetated walls, preservation of existing trees, and layering of vegetation along streets and other areas visible to the public.

4.1.5 Retrofit Program for Existing Discharges

4.1.5.1 Within two years of the effective date of this permit the District shall develop, public notice, and submit to EPA for review and approval a program that establishes performance metrics for retrofit projects. The District shall fully implement the program upon EPA approval. The starting point for the performance metrics shall be the standard in Section 4.1.1. Performance metrics may be established generally for all retrofit projects, or for categories of projects, e.g., roads, sidewalks, parking lots, campuses. Specific site conditions may constitute justifications for setting a performance standard at something less than the standard in Section 4.1.1, and a similar calculator or algorithm process may be used in conjunction with a specific site analysis.

4.1.5.2 The District, with facilitation assistance from EPA Region III, will also work with major Federal landholders, such as the General Services Administration and the Department of Defense, with the objective of identifying retrofit opportunities, documenting federal commitments, and tracking pollutant reductions from relevant federal actions.

4.1.5.3 For each retrofit project estimate the potential pollutant load and volume reductions achieved through the DC Retrofit program by major waterbody (Rock Creek, Potomac, Anacostia) for the following pollutants: Bacteria (E. coli), Total Nitrogen, Total Phosphorus, Total Suspended Solids, Cadmium, Copper, Lead, Zinc, and Trash. These estimates shall be included in the annual report following implementation of the project.

4.1.5.4 The DC Retrofit Program shall implement retrofits for stormwater discharges from a minimum of 18,000,000 square feet of impervious surfaces during the permit term. A minimum of 1,500,000 square feet of this objective must be in transportation rights-of-way.

4.1.5.5 No later than 18 months following issuance of this permit, the permittee shall, through its Updated DC Stormwater Regulations or other permitting or regulatory mechanisms, implement an enforceable mechanism that will adopt and implement stormwater retention requirements for properties where less than 5,000 square feet of soil is being disturbed but where the buildings or structures have a footprint that is greater than or equal to 5,000 square feet and are undergoing substantial improvement. Substantial improvement, as consistent with District regulations at 12J DCMR § 202, is any repair, alteration, addition, or improvement of a building or structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the improvement or repair is started. The characteristics of these types of projects may constitute justifications for setting a performance standard at something less than the standard in Section 4.1.1.

4.1.5.6 The permittee shall ensure that every major renovation/rehabilitation project for District-owned properties within the inventory of DRES and OPEFM (e.g., schools and school administration buildings) includes on-site stormwater retention measures, including but not

limited to green roofs, stormwater harvest/reuse, and/or other practices that can achieve the retention performance standard.

4.1.6 Tree Canopy

4.1.6.1 No later than one year following issuance of this permit, the District shall develop and public notice a strategy to reduce the discharge of stormwater pollutants by expanding tree canopy throughout the city. The strategy shall identify locations throughout the District where tree plantings and expanded tree boxes are technically feasible and commit to specific schedules for implementation at locations throughout the District, with highest priority given to projects that offer the greatest stormwater retention potential. The strategy shall also include the necessary elements to achieve the requirements of Section 4.1.6.2.

4.1.6.2 The District shall achieve a minimum net annual tree planting rate of 4,150 plantings annually within the District MS4 area, with the objective of a District-wide urban tree canopy coverage of 40% by 2035. The annual total tree planting shall be calculated as a net increase, such that annual mortality is also included in the estimate. The District shall ensure that trees are planted and maintained, including requirements for adequately designed and sized tree boxes, to achieve optimal stormwater retention and tree survival rate. Trees shall be planted in accordance with the Planting Specifications issued by the International Society of Arboriculture as appropriate to the site conditions.

4.1.6.3 The District shall annually document the total trees planted and make an annual estimate of the volume of stormwater that is being removed from the MS4 (and combined system, as relevant) in a typical year of rainfall as a result of the maturing tree canopy over the life of the MS4 permit. Also report annually on the status of achieving 40% canopy District-wide.

4.1.7 Green Roof Projects

4.1.7.1 Complete a structural assessment of all District properties maintained by DRES and slated for redevelopment to determine current roof conditions and the feasibility for green roof installation. These assessments shall be performed on an ongoing basis for all properties as they are considered for redevelopment. Based on the structural assessment and other factors, identify all District-owned properties where green roof projects are technically feasible and commit to specific schedules for implementing these projects. Highest priority shall be given to projects that offer the greatest stormwater capture potential.

4.1.7.2 The permittee shall install at a minimum 350,000 square feet of green roofs on District properties during the term of the permit (including schools and school administration buildings).

4.1.7.3 Document the square footage of green roof coverage in the District, whether publicly or privately owned, report any incentive programs implemented during the permit term, and estimate the volume of stormwater that is being removed from the MS4 (and combined

system, as relevant) in a typical year of rainfall as a result of the combined total green roof facilities in the District.

4.2 Operation and Maintenance of Stormwater Capture Practices

4.2.1 District Owned and Operated Practices.

Within two years of the effective date of this permit, develop and implement operation and maintenance protocols and guidance for District-owned and operated on-site retention practices (development and retrofits) to include maintenance needs, inspection frequencies, estimated maintenance frequencies, and a tracking system to document relevant information. Provide training to all relevant municipal employees and contractors, with regular refreshers, as necessary.

4.2.2 Non-District Owned and Operated Practices.

In conjunction with updating of relevant ordinances and policies, develop accountability mechanisms to ensure maintenance of stormwater control measures on non-District property. Those mechanisms may include combinations of deed restrictions, ordinances, maintenance agreements, or other policies deemed appropriate by the District. The District must also include a long-term verification process of O&M, which may include municipal inspections, 3rd party inspections, owner/operator certification on a frequency deemed appropriate by the District, and/or other mechanisms. The District must continue to maintain an electronic inventory of practices on private property to include this information.

4.2.3 Stormwater Management Guidebook and Training

4.2.3.1 No later than 18 months from the permit issuance date, the permittee shall finalize a Stormwater Management Guidebook to be available for wide-spread use by land use planners and developers. The Stormwater Management Guidebook shall provide regular updates, as applicable, in a format that facilitates such regular updates, and shall include objectives and specifications for integration of stormwater management technologies, including on site retention practices, in the areas of:

- a. Site Assessment.
- b. Site Planning and Layout.
- c. Vegetative Protection, Revegetation, and Maintenance.
- d. Techniques to Minimize Land Disturbance.
- e. Techniques to Implement Measures at Various Scales.
- f. Integrated Water Resources Management Practices.
- g. Designing to meet the required performance standard(s).
- h. Flow Modeling Guidance.
- i. Hydrologic Analysis.
- j. Construction Considerations.
- k. Operation and Maintenance

4.2.3.2 The permittee shall continue to provide key industry, regulatory, and other stakeholders with information regarding objectives and specifications of green infrastructure practices contained in the Stormwater Management Guidebook through a training program. The Stormwater Management training program will include at a minimum the following:

- a. Stormwater management/green technology practices targeted sessions and materials for builders, design professionals, regulators, resource agencies, and stakeholders.
- b. Materials and data from stormwater management/green technology practices pilot projects and demonstration projects including case studies.
- c. Design and construction methods for integration of stormwater management/green technology practices measures at various project scales.
- d. Guidance on performance and cost of various types of stormwater management/green technology practices measures in the District.

4.3 Management of for District Government Areas

Procedures to reduce the discharge of pollutants in stormwater runoff shall include, but not be limited to:

4.3.1 Sanitary Sewage System Maintenance Overflow and Spill Prevention Response

The permittee shall coordinate with DC Water to implement an effective response protocol for overflows of the sanitary sewer system into the MS4. The response protocol shall clearly identify agencies responsible and telephone numbers and e-mail for any contact and shall contain at a minimum, procedures for:

1. Investigating any complaints received within 24 hours of the incident report.
2. Responding within two hours to overflows for containment.
3. Notifying appropriate sewer, public health agencies and the public within 24 hours when the sanitary sewer overflows to the MS4.

This provision in no way authorizes sanitary sewer overflow discharges either directly or via the MS4.

4.3.2 Public Construction Activities Management

The permittee shall implement and comply with the Development and Redevelopment and the Construction requirements in Part 4.6 of this permit at all permittee-owned or operated public construction projects.

The permittee shall obtain discharge authorization under the applicable EPA Construction General permit for construction activities and comply with provisions therein.

4.3.3 Vehicle Maintenance/Material Storage Facilities/ Municipal Operations.

The permittee shall implement stormwater pollution prevention measures at all permittee-owned, leased facilities and job sites including but not limited to vehicle/ equipment maintenance facilities, and material storage facilities.

For vehicle and equipment wash areas and municipal facilities constructed, redeveloped, or replaced, the permittee shall eliminate discharges of wash waters from vehicle and equipment washing into the MS4 by implementing any of the following measures at existing facilities with vehicle or equipment wash areas:

1. Self-contain, and haul off-site for disposal;
2. Equip with a clarifier; or
3. Equip with an alternative pre-treatment device.

4.3.4 Landscape and Recreational Facilities Management, Pesticide, Herbicide, Fertilizer and Landscape Irrigation

4.3.4.1 The permittee shall further reduce pollutants and pollutant discharges associated with the storage and application of pesticides, fertilizers, herbicides, the use of other toxic substances and landscape irrigation according to an integrated pest management program (IPM). The IPM shall be an ecosystem based strategy that focuses on long-term prevention of pests or their damage through a combination of techniques such as biological control, habitat manipulation, modification of cultural practices, use of resistant varieties, and use of low or no chemical and irrigation input landscapes, in accordance with the provisions of this permit, procedures and practices described in the SWMP and regulations.

The permittee shall further utilize IPM controls to reduce pollutants related to the storage and application of pesticides, herbicides, and fertilizers applied by employees or contractors, to public rights-of-way, parks, and other District property to ensure that:

- a. Pesticides are used only if monitoring indicates they are needed according to established guidelines;
- b. Fertilizers are used only when soil tests indicate that they are necessary, and only in minimum amounts and for needed purposes (e.g., seed germination).
- c. Treatments are made with the purpose of removing only the target organism;
- d. Pest controls are selected and applied in a manner that minimizes risks to human health, beneficial, non-target organisms, and the environment;
- e. No pesticides or fertilizers are applied to an area immediately prior to an expected rain event, or during or immediately following a rain event, or when water is flowing off the area;
- f. No banned or unregistered pesticides are stored or applied;

- g. All staff applying pesticides are certified or are under the direct supervision of a pesticide applicator certified in the appropriate category;
- h. Procedures are implemented to encourage the retention and planting of native and/or non-invasive, naturalized vegetation to reduce water, pesticide and fertilizer needs;
- i. Pesticides and fertilizers are stored indoors or under cover on paved surfaces or enclosed in secondary containment and storage areas inspected regularly to reduce the potential for spills; and
- j. Landscapes that maximize on-site retention of stormwater, while minimizing mowing, chemical inputs and irrigation are given preference for all new landscape installation.

4.3.4.2 The District shall coordinate internally among departments for the purpose of ensuring that pesticide and fertilizer use within its jurisdiction does not threaten water quality.

4.3.4.3 The District shall partner with other organizations to ensure that pesticide and fertilizer use within their jurisdiction does not threaten water quality.

4.3.4.4 The District shall continue to conduct education and outreach, as well as provide incentives, to curtail the use of turf-grass fertilizers for the purpose of reducing nitrogen and phosphorous discharges to surface waters. The program shall incentivize the use of vegetative landscapes other than turf grass and other measures to restrict the use of turf grass fertilizers.

4.3.4.5 The District shall use GIS layers of public land and sewersheds, as well as background data, to identify priority areas for a targeted strategy to reduce the sources of pesticides, herbicides, and fertilizers that contaminate the stormwater runoff, and report progress toward completing the screening characterization in the next Updated SWMP.

4.3.4.6 The District shall include in each Annual Report a report on the implementation of the above application procedures, a history of the improvements in the control of these materials, and an explanation on how these procedures will meet the requirements of this permit.

4.3.5 Storm Drain System Operation and Management and Solids and Floatables Reduction

4.3.5.1 Within 18 months of the effective date of this permit, the District shall complete, public notice and submit to EPA for review and approval a plan for optimal catch basin inspections, cleaning and repairs. The District shall fully implement the plan upon EPA approval.

4.3.5.2 Until such time as the catch basin maintenance study has been completed and approved, the permittee shall ensure that each catch basin within the DC MS4 Permit Area is cleaned at least once annually during the life of the permit. The permittee shall continue to use strategies for coordinated catch basin cleaning and street-sweeping that will optimize reduction of stormwater pollutants.

4.3.5.3 Within 18 months of the effective date of this permit, and consistent with the 2006 Outfall Survey, the District shall complete, public notice and submit to EPA for review and approval an outfall repair schedule to ensure that approximately 10% of all outfalls needing repair are repaired annually, with the overall objective of having all outfalls in good repair by 2022. This schedule may be combined with the catch basin maintenance study outlined in 4.3.5.1. The repair schedule shall be fully implemented upon EPA approval.

4.3.5.4 The permittee shall comply with the Anacostia River Trash TMDL implementation provisions in Part 4.10 of this permit and apply the technologies and other activities developed in the Anacostia River Watershed Trash TMDL throughout the entire MS4 Permit Area. The permittee shall continue to report the progress of trash reduction in the Consolidated Annual Report.

4.3.6 Streets, Alleys and Roadways

4.3.6.1 Street sweeping shall be conducted on no less than 641 acres of roadway in the MS4 area annually in accordance with the following schedule:

TABLE 3
Street Sweeping

Area/Street Classification	Frequency
Arterials-heavily developed commercial and central business districts with considerable vehicular and pedestrian traffic	At least nine (9) times per year
Industrial areas	At least six (6) times per year
Residential-residential areas with limited throughway and pedestrian traffic AND neighborhood streets which are used for local purposes only	At least four (4) times per year
Central Business District/Commercial-neighborhood business districts and main streets with moderate vehicular and pedestrian traffic	At least one (1) time every two weeks
Environmental hot spots in the	At least two (2) times per month

4.3.6.2 Standard road repair practices shall include limiting the amount of soil disturbance to the immediate area under repair. Stormwater conveyances which are denuded shall be resodded, reseeded and mulched, or otherwise stabilized for rapid revegetation, and these areas should have effective erosion control until stabilized.

4.3.6.3 The permittee shall continue to evaluate and update the use, application and removal of anti-icers, chemical deicers, salt, sand, and/or sand/deicer mixtures in an effort to minimize the impact of these materials on water quality. The permittee shall investigate and implement techniques available for reducing pollution from deicing salts in snowmelt runoff and runoff from salt storage facilities. The permittee shall evaluate and implement the use of porous/permeable surfaces that require less use of deicing materials and activities. This evaluation shall be made a part of an overall investigation of ways to meet the requirements of the Clean Water Act and reported in each Annual Report.

4.3.6.4 The permittee shall continue to implement and update a program to ensure that excessive quantities of snow and ice control materials do not enter the District's water bodies. The permittee shall report its progress in implementing the program in each Annual Report. Except during a declared Snow Emergency when the permittee determines that the foremost concern of snow removal activities is public health and safety, it shall avoid snow dumping or storage in areas adjacent to water bodies, wetlands, and areas near public or private drinking water wells which would ultimately reenter the MS4.

4.3.7 Infrastructure Maintenance/Pollution Source Control Maintenance

The permittee shall continue to implement an operation and maintenance program that incorporates good housekeeping components at all municipal facilities located in the DC MS4 Permit Area, including but not limited to; municipal waste water treatment facility, potable drinking water facility, municipal fleet operations, maintenance garages, parks and recreation, street and infrastructure maintenance, and grounds maintenance operations, libraries and schools. The permittee shall document the program in the Annual Report, as required at Section 6.2 herein. The permittee shall, at a minimum:

1. Continue to implement maintenance standards at all municipal facilities that will protect the physical, chemical and biological integrity of receiving waters.
2. Continue to implement an inspection schedule in which to perform inspections to determine if maintenance standards are being met. Inspections shall be performed no less than once per calendar year and shall provide guidance in Stormwater Pollution Prevention Plan development and implementation, where needed.
3. Continue to implement procedures for record keeping and tracking inspections and maintenance at all municipal facilities.

4. Continue to implement an inspection and maintenance program for all permittee-owned management practices, including post-construction measures.
5. Continue to ensure proper operation of all treatment management practices and maintain them as necessary for proper operation, including all post-construction measures.
6. Ensure that any residual water following infrastructure maintenance shall be self-contained and disposed of legally in accordance with the Clean Water Act.

4.3.8 Public Industrial Activities Management/Municipal and Hazardous Facilities

For any municipal activity associated with industrial activity, as defined by 40 C.F.R. § 122.26, which discharges stormwater to, from and through the DC MS4, the permittee shall obtain separate coverage under either: (1) the EPA Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP) (As modified May 27, 2009); or (2) an individual permit.

4.3.9 Emergency Procedures

The permittee may conduct repairs of essential public service systems and infrastructure in emergency situations. An emergency includes only those situations included as conditions necessary for demonstration of an upset at 40 C.F.R. 122.41(n). For each claimed emergency, the permittee shall submit to the Permitting Authority a statement of the occurrence of the emergency, an explanation of the circumstances, and the measures that were implemented to reduce the threat to water quality, no later than required by applicable Clean Water Act regulations.

4.3.10 Municipal Official Training

The permittee shall continue to implement an on-going training program for those employees specified below, and any other employees whose job functions may impact stormwater program implementation. The training program shall address the importance of protecting water quality, the requirements of this permit, design, performance, operation and maintenance standards, inspection procedures, selecting appropriate management practices, ways to perform their job activities to prevent or minimize impacts to receiving waters, and procedures for tracking, inspecting and reporting, including potential illicit discharges. The permittee shall provide follow-up and refresher training at a minimum of once every twelve months, and shall include any changes in procedures, techniques or requirements.

The training program shall include, but is not limited to, those employees who work in the following areas:

1. Municipal Planning
2. Site plan review

3. Design
4. Construction
5. Transportation planning and engineering
6. Street/sewer and right-of-way construction and maintenance
7. Water and sewer departments
8. Parks and recreation department
9. Municipal water treatment and waste water treatment
10. Fleet maintenance
11. Fire and police departments
12. Building maintenance and janitorial
13. Garage and mechanic crew
14. Contractors and subcontractors who may be contracted to work in the above described
15. areas
16. Personnel responsible for answering questions about the permittee's stormwater program,
17. including persons who may take phone calls about the program
18. Any other department of the permittee that may impact stormwater runoff

4.4 Management of Commercial and Institutional Areas

The District shall establish and implement policies and procedures to reduce the discharge of pollutants in stormwater runoff from all commercial and institutional (including federal) areas covered by this permit.

The permittee shall ensure maintenance of all stormwater management controls in commercial and institutional land areas in accordance with the following provisions:

1. Tracking all controls;
2. Inspecting all controls on a regular basis, according to an inspection schedule;
3. Ensure compliance with the MS4 permit and municipal ordinances at commercial and institutional facilities.

4.4.1 Inventory of Critical Sources and Source Controls

4.4.1.1 The permittee shall continue to maintain a watershed-based inventory or database of all facilities within its jurisdiction that are critical sources of stormwater pollution. Critical sources to be tracked shall include the following:

- a. Automotive service facilities, *e.g.*, service, fueling and salvage facilities;
- b. Industrial activities, as defined at 40 C.F.R. §§ 122.26(b)(14); and
- c. Construction sites exceeding one acre, or sites under one acre that are part of a larger common plan of development.
- d. Dry cleaners
- e. Any other facility the District has identified as a Critical Source

4.4.1.2 The permittee shall include the following minimum fields of information for each industrial and commercial facility identified as a critical source:

- a. Name of facility and name of owner/ operator;
- b. Address of facility;
- c. Size of facility; and
- d. Activities conducted at the facility that could impact stormwater.
- e. Practices and/or measures to control pollutants.
- f. Inspection and maintenance schedules, dates and findings.

4.4.1.3 The permittee shall update its inventory of critical sources at least annually. The update may be accomplished through collection of new information obtained through field activities or through other readily available inter and intra-agency informational databases (*e.g.*, business licenses, pretreatment permits, sanitary sewer hook-up permits, and similar information).

4.4.2 Inspection of Critical Sources

The permittee shall continue to inspect all commercial facilities identified in Part 4.4.1. herein and any others found to be critical sources twice during the five-year term of the permit. A minimum interval of six months between the first and the second mandatory compliance inspection is required, unless a follow-up inspection to ensure compliance must occur sooner.

4.4.3 Compliance Assurance.

At each facility identified as a critical source, the permittee's inspector(s) shall verify that the operator is implementing a control strategy necessary to protect water quality. Where the permittee determines that existing measures are not adequate to protect water quality, the permittee shall require additional site-specific controls sufficient to protect water quality.

4.5 Management of Industrial Facilities and Spill Prevention

4.5.1 The District shall continue to implement a program to monitor and control pollutants in stormwater discharged from Industrial Facilities located within the MS4 Permit Area, as defined herein, pursuant to the requirements in 40 C.F.R. § 122.26(d)(2)(iv)(C). These facilities shall include, but are not limited to:

- a. Private Solid Waste Transfer Stations
- b. Hazardous Waste Treatment, Disposal, and/or Recovery Plants
- c. Industrial Facilities subject to SARA or EPCRA Title III
- d. Industrial Facilities with NPDES Permits
- e. Industrial facilities with a discharge to the MS4

4.5.2 The District shall continue to maintain and update the industrial facilities database.

4.5.3 The District shall continue to perform or provide on-site assistance/inspections and outreach focused on the development of stormwater pollution prevention plans and NPDES permit compliance.

4.5.4 The District shall continue to refine and implement procedures to govern the investigation of facilities suspected of contributing pollutants to the MS4, including at a minimum: (i) a review, if applicable, of monitoring data collected by the facility pursuant to its NPDES permit; and (ii) wet weather screening as required by Part 5.2.1 herein (including collecting data on discharges from industrial sites). These procedures shall be submitted as part of each Annual Report required by Part 6.2 herein.

4.5.5 The District shall continue to implement the prohibition against illicit discharges, control spills, and prohibit dumping. Continue to implement a program to prevent, contain, and respond to spills that may discharge to the MS4, and report on such implementation submitted in each Annual Report. The spill response program may include a combination of spill response actions by the permittee and/or another public or private entity.

4.5.6 The District shall report progress in developing and carrying out industrial-related programs in each Annual Report required by Section 6 herein. Provide an explanation as to how the implementation of these procedures will meet the requirements of the Clean Water Act.

4.6 Stormwater Management for Construction Sites

4.6.1 Continue implementation of the Program that reduces the discharge of pollutants from construction sites. In each Annual Report, the permittee shall evaluate and report to determine if the existing practices meet the requirements of 40 C.F.R. § 122.26(d)(2)(iv)(A) and (D).

4.6.2 Continue the review and approval process of the sediment and erosion control plans under this program. Also, the permittee shall ensure that all construction projects impacting one acre or greater, or less than one acre when part of a larger common plan of development or sale equal to or larger than one acre, are not authorized until documentation is provided that they have received EPA NPDES Construction General Permit Coverage.

4.6.3 Continue to implement inspection and enforcement procedures, including but not limited to inspection of permitted construction sites that disturb more than 5,000 square feet of soil as follows:

1. First inspection prior to ground disturbing activities to review planned sediment and erosion control measures;
2. Second inspection to verify proper installation and maintenance of sediment and erosion control measures;
3. Third inspection to review planned installation and maintenance of stormwater BMPs;

4. Fourth inspection to verify proper installation of stormwater management practices following final stabilization of the project site; and
5. Other inspections as necessary to ensure compliance with relevant standards and requirements.

4.6.4 When a violation of local erosion and sediment control ordinances occurs, the permittee shall follow existing enforcement procedures and practices using standardized reports as part of the inspection process to provide accurate record keeping of inspections of construction sites. The permittee shall use a listing of all violations and enforcement actions to assess the effectiveness of the Enforcement Program in each Annual Report.

4.6.5 Continue with educational measures for construction site operators (Section 4.9 of this permit) that consist, at a minimum, of providing guidance manuals and technical publications.

4.6.6 Report progress in developing and carrying out the above construction-related programs in each Annual Report required by Parts 6.2 herein, including: (i) an explanation as to how the implementation of these procedures will meet the requirements of the Clean Water Act; (ii) an explanation as to how the implementation of these procedures, particularly with regard to District "waivers and exemptions", will meet the requirements of the Clean Water Act; and (iii) discussion of progress toward meeting TMDL and the District Watershed Implementation Plan deadlines.

4.7 Illicit Discharges and Improper Disposal.

4.7.1 The District shall continue to implement an ongoing program to detect illicit discharges, pursuant to the SWMP, and Part 4 of this permit, and to prevent improper disposal into the storm sewer system, pursuant to 40 C.F.R. § 122.26(d)(2)(iv)(B)(1). Such program shall include, at a minimum the following:

- a. An updated schedule of procedures and practices to prevent illicit discharges, as defined at 40 C.F.R. § 122.26(b)(2), and, pursuant to 40 C.F.R. § 122.26(d)(2)(iv)(B)(1), to detect and remove illicit discharges as defined herein;
- b. An updated inventory (organized by watershed) of all outfalls that discharge through the MS4 including any changes to the identification and mapping of existing permitted outfalls. Such inventory shall include, but not be limited to, the name and address, and a description (such as SIC code) which best reflects the principal products or services provided by each facility which may discharge to the MS4;
- c. Continue to implement an illicit connection detection and enforcement program to perform dry weather flow inspections in target areas;
- d. Visual inspections of targeted areas;

- e. Issuance of fines, tracking and reporting illicit discharges, and reporting progress on stopping targeted illicit discharges, and in appropriate cases, chemical testing immediately after discovery of an illicit discharge;
- f. Enforcement procedures for illicit discharges set forth in Part 4 herein;
- g. All necessary inspection, surveillance, and monitoring procedures to remedy and prevent illicit discharges. The permittee shall submit an inspection schedule, inspection criteria, documentation regarding protocols and parameters of field screening, and allocation of resources as a part of each Annual Report.
- h. The permittee shall continue to implement procedures to prevent, contain, and respond to spills that may discharge into the MS4. The permittee shall provide for the training of appropriate personnel in spill prevention and response procedures.
- i. The permittee shall report the accomplishments of this program in each Annual Report.

4.7.2 The District shall continue to ensure the implementation of a program to further reduce the discharge of floatables (e.g. litter and other human-generated solid refuse). The floatables program shall include source controls and, where necessary, structural controls.

4.7.3 The District shall continue to implement the prohibition against the discharge or disposal of used motor vehicle fluids, household hazardous wastes, grass clippings, leaf litter, and animal waste into separate storm sewers. The permittee shall ensure the implementation of programs to collect used motor vehicle fluids (at a minimum oil and anti-freeze) for recycle, reuse, and proper disposal and to collect household hazardous waste materials (including paint, solvents, pesticides, herbicides, and other hazardous materials) for recycle, reuse, or proper disposal. The permittee shall ensure that such programs are readily available within the District, and that they are publicized and promoted on a regular basis, pursuant to Public Education provisions in this permit at Part 4.9 herein.

4.7.4 The District shall continue to work with members of the Metropolitan Police Department to enhance illegal dumping enforcement.

4.7.5 The District shall implement the District's ban on coal tar pavement products, including conducting outreach and enforcement activities.

4.7.6 The District shall implement the Anacostia Clean Up and Protection Act of 2009, to ban the use of disposable non-recyclable plastic carryout bags and restrict the use on disposable carryout bags in certain food establishments.

4.8 Flood Control Projects

4.8.1 The District shall update the impervious surface analysis of floodplains six months after the approval of the revised Flood Insurance Rate Maps by the Federal Emergency Management Agency.

4.8.2 The District shall assess potential impacts on the water quality and the ability of the receiving water to support beneficial uses for all flood management projects. Evaluate the feasibility of retrofitting existing flood control devices to provide additional pollutant and volume removal from stormwater. Report results of such assessment, mapping program, and feasibility studies in the Annual Report (Part 6.2 herein).

4.8.3 The District shall review all development proposed in flood plain areas to ensure that the impacts on the water quality of receiving water bodies have been properly addressed. Information regarding impervious surface area located in the flood plains shall be used (in conjunction with other environmental indicators) as a planning tool. The permittee shall collect data on the percentage of impervious surface area located in flood plain boundaries for all proposed development beginning six months after the effective date of this permit. The permittee shall collect similar data for existing development in flood plain areas, in accordance with the mapping program and other activities designed to improve water quality. Critical unmapped areas shall be prioritized by the permittee with an emphasis on developed and developing acreage. Reports of this work shall be summarized in the Annual Report.

4.9 Public Education and Public Participation

The District shall continue to implement a public education program including but not limited to an education program aimed at residents, businesses, industries, elected officials, policy makers, planning staff and other employees of the permittee. The purpose of education is to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts. Education initiatives may be developed locally or regionally.

4.9.1 Education and Outreach.

4.9.1.1 The District shall continue to implement its education and outreach program for the area served by the MS4 that was established during the previous permit cycle. The outreach program shall be designed to achieve measurable improvements in the target audience's understanding of stormwater pollution and steps they can take to reduce their impacts.

4.9.1.2 The permittee shall assess current education and outreach efforts and identify areas where additional outreach and education are needed. Audiences and subject areas to be considered include:

a. General public

- 1) General impacts of stormwater flows into surface waters
- 2) Impacts from impervious surfaces
- 3) Source control practices and environmental stewardship actions and opportunities in the areas of pet waste, vehicle maintenance, landscaping, and rain water reuse.

- 4) A household hazardous waste educational and outreach program to control illicit discharges to the MS4 as required herein
- 5) Information and education on proper management and disposal of used oil, other automotive fluids, and household chemicals
- 6) Businesses, including home-based and mobile businesses
- 7) Management practices for use and storage of automotive chemicals, hazardous cleaning supplies, carwash soaps and other hazardous materials
- 8) Impacts of illicit discharges and how to report them including information for industries about stormwater permitting and pollution prevention plans and the requirement that they develop structural and non-structural control systems

b. Homeowners, landscapers and property managers

- 1) Use of low or no phosphorus fertilizers, alternatives to fertilizers, alternative landscaping requiring no fertilizers
- 2) Landscape designs to reduce runoff and pollutant loadings
- 3) Car washing alternatives with the objective of eliminating phosphorus detergent discharges
- 4) Yard care techniques that protect water quality
- 5) Management practices for use and storage of pesticides and fertilizers
- 6) Management practices for carpet cleaning and auto repair and maintenance
- 7) Runoff Reduction techniques, including site design, on-site retention, pervious paving, retention of forests and mature trees
- 8) Stormwater pond maintenance

c. Engineers, contractors, developers, review staff and land use planners

- 1) Technical standards for construction site sediment and erosion control
- 2) Runoff Reduction techniques, including site design, on-site reduction, pervious pavement, alternative parking lot design, retention of forests and mature trees
- 3) Stormwater treatment and flow control controls
- 4) Impacts of increased stormwater flows into receiving water bodies

4.9.2 Measurement of Impacts.

The permittee shall continue to measure the understanding and adoption of selected targeted behaviors among the targeted audiences. The resulting measurements shall be used to direct education and outreach resources most effectively, as well as to evaluate changes in adoption of the targeted behaviors.

4.9.3 Recordkeeping.

The permittee shall track and maintain records of public education and outreach activities.

4.9.4 Public Involvement and Participation.

The permittee shall continue to include ongoing opportunities for public involvement through advisory councils, watershed associations and/or committees, participation in developing updates to the stormwater fee system, stewardship programs, environmental activities or other similar activities. The permittee shall facilitate opportunities for direct action, educational, and volunteer programs such as riparian planting, volunteer monitoring programs, storm drain marking or stream clean up programs.

4.9.4.1 The permittee shall continue to create opportunities for the public to participate in the decision making processes involving the implementation and update of the permittee's SWMP. The permittee shall continue to implement its process for consideration of public comments on their SWMP.

4.9.4.2 The permittee shall continue to establish a method of routine communication to groups such as watershed associations and environmental organizations that are located in the same watershed(s) as the permittee, or organizations that conduct environmental stewardship projects located in the same watershed(s) or in close proximity to the permittee. This is to make these groups aware of opportunities for their direct involvement and assistance in stormwater activities that are in their watershed.

4.9.4.3 The permittee shall make all draft and approved MS4 documents required under this permit available to the public for comment. The current draft and approved SWMP and the MS4 annual reports deliverable documents required under this permit shall be posted on the permittee's website.

4.9.4.4 The permittee shall continue to develop public educational and participation materials in cooperation and coordination with other agencies and organizations in the District with similar responsibilities and objectives. Progress reports on public education shall be included in the Annual Report. An explanation shall be provided as to how this effort will reduce pollution loadings to meet the requirements of this permit.

4.9.4.5 The permittee shall periodically, and at least annually, update its website.

4.10 Total Maximum Daily Load (TMDL) Wasteload Allocation (WLA) Planning and Implementation

4.10.1 Anacostia River Watershed Trash TMDL Implementation

The permittee shall attain removal of 103,188 pounds of trash annually, as determined in the Anacostia River Watershed Trash TMDL, as a specific single-year measure by the fifth year of this permit term.

Reductions must be made through a combination of the following approaches:

1. Direct removal from waterbodies, e.g., stream clean-ups, skimmers
2. Direct removal from the MS4, e.g., catch basin clean-out, trash racks

3. Direct removal prior to entry to the MS4, e.g., street sweeping
4. Prevention through additional disposal alternatives, e.g., public trash/recycling collection
5. Prevention through waste reduction practices, regulations and/or incentives, e.g., bag fees

At the end of the first year the permittee must submit the trash reduction calculation methodology with Annual Report to EPA for review and approval. The methodology should accurately account for trash prevention/removal methods beyond those already established when the TMDL was approved, which may mean crediting a percentage of certain approaches. The calculation methodology must be consistent with assumptions for weights and other characteristics of trash, as described in the 2010 Anacostia River Watershed Trash TMDL.

Annual reports must include the trash prevention/removal approaches utilized, as well as the overall total weight (in pounds) of trash captured for each type of approach.

The requirements of this Section, and related elements as appropriate, shall be included in the Consolidated TMDL Implementation Plan (Section 4.10.3).

4.10.2 Hickey Run TMDL Implementation

The permittee shall implement and complete the proposed replacement/rehabilitation, inspection and enforcement, and public education aspects of the strategy for Hickey Run as described in the updated Plan to satisfy the requirements of the oil and grease wasteload allocations for Hickey Run. If monitoring or other assessment determine it to be necessary, the permittee shall install or implement appropriate controls to address oil & grease in Hickey Run no later than the end of this permit term. As appropriate, any requirement of this Section not completed prior to finalization of the Consolidated TMDL Implementation Plan (Section 4.10.3) shall be included in that Plan.

4.10.3 Consolidated TMDL Implementation Plan

For all TMDL wasteload allocations assigned to District MS4 discharges, the District shall develop, public notice and submit to EPA for review and approval a consolidated TMDL Implementation Plan within 2 years of the effective date of this permit. This Plan shall include, at a minimum, the following TMDLs and any subsequent updates:

1. TMDL for Biochemical Oxygen Demand (BOD) in the Upper and Lower Anacostia River (2001)
2. TMDL for Total Suspended Solids (TSS) in the Upper and Lower Anacostia River (2002)
3. TMDL for Fecal Coliform Bacteria in the Upper and Lower Anacostia River (2003)
4. TMDL for Organics and Metals in the Anacostia River and Tributaries (2003)
5. TMDL for Fecal Coliform Bacteria in Kingman Lake (2003)
6. TMDL for Total Suspended Solids, Oil and Grease and Biochemical Oxygen Demand in Kingman Lake (2003)

7. TMDL for Fecal Coliform Bacteria in Rock Creek (2004)
8. TMDL for Organics and Metals in the Tributaries to Rock Creek (2004)
9. TMDL for Fecal Coliform Bacteria in the Upper, Middle and Lower Potomac River and Tributaries (2004)
10. TMDL for Organics, Metals and Bacteria in Oxon Run (2004)
11. TMDL for Organics in the Tidal Basin and Washington Ship Channel (2004)
12. TMDL for Sediment/Total Suspended Solids for the Anacostia River Basin in Maryland and the District (2007) [pending resolution of court vacature, *Anacostia Riverkeeper, Inc. v. Jackson*, No. 09-cv-97 (RCL)]
13. TMDL for PCBs for Tidal Portions of the Potomac and Anacostia Rivers in the District of Columbia, Maryland and Virginia (2007)
14. TMDL for Nutrients/Biochemical Oxygen Demand for the Anacostia River Basin in Maryland and the District (2008)
15. TMDL for Trash for the Anacostia River Watershed, Montgomery and Prince George's Counties, Maryland and the District of Columbia (2010)
16. TMDL for Nitrogen, Phosphorus and Sediment for the Chesapeake Bay Watershed (2010)

This Plan shall place particular emphasis on the pollutants in Table 4, but shall also evaluate other pollutants of concern for which relevant WLAs exist. The District shall fully implement the Plan upon EPA approval. This Plan shall preempt any existing TMDL implementation plans for the relevant WLAs. For any new or revised TMDL approved during the permit term with wasteload allocations assigned to District MS4 discharges, the District shall update this Plan within six months and include a description of revisions in the next regularly scheduled annual report. The Plan shall include:

1. A specified schedule for compliance with each TMDL that includes numeric benchmarks that specify annual pollutant load reductions and the extent of control actions to achieve these numeric benchmarks.
2. Interim numeric milestones for TMDLs where final attainment of applicable waste load allocations requires more than one permit cycle. These milestones shall originate with the third year of this permit term and every five years thereafter.
3. Demonstration using modeling of how each applicable WLA will be attained using the chosen controls, by the date for ultimate attainment.
4. The Consolidated TMDL Implementation Plan elements required in this section will become enforceable permit terms upon approval of such Plans, including the interim and final dates in this section for attainment of applicable WLAs.
5. Where data demonstrate that existing TMDLs are no longer appropriate or accurate, the Plan shall include recommended solutions, including, if appropriate, revising or withdrawing TMDLs.

4.10.4 Adjustments to TMDL Implementation Strategies

If evaluation data, as outlined in the monitoring strategy being developed per Part 5.1, indicate insufficient progress towards attaining any WLA covered in 4.10.1, 4.10.2 or 4.10.3, the

permittee shall adjust its management programs within 6 months to address the deficiencies, and document the modifications in the Consolidated TMDL Implementation Plan. The Plan modification shall include a reasonable assurance demonstration of the additional controls to achieve the necessary reductions. Annual reports must include a description of progress as evaluated against all implementation objectives, milestones and benchmarks, as relevant, outlined in Part 4.10.

4.11 Additional Pollutant Sources

For any additional pollutant sources not addressed in sections 4.1 through 4.9, the permittee shall continue to compile pertinent information on known or potential pollution sources, including significant changes in:

1. land use activities,
2. population estimates,
3. runoff characteristics,
4. major structural controls,
5. landfills,
6. publicly owned lands, and
7. industries impacting the MS4.

For purposes of this section, “significant changes” are changes that have the potential to revise, enhance, modify or otherwise affect the physical, legal, institutional, or administrative characteristics of the above-listed potential pollution sources. This information shall be submitted in each of the Annual Reports submitted to EPA pursuant to the procedures in Part 6.2 herein. For the Stormwater Model, analysis of data for these pollution sources shall be reported according to Part 7 herein.

The permittee shall implement controls to minimize and prevent discharges of pollutants from additional pollutant sources, including but not limited to Bacteria (*E. coli*), Total Nitrogen, Total Phosphorus, Total Suspended Solids, Cadmium, Copper, Lead, Zinc, and Trash, to receiving waters. Controls shall be designed to prevent and restrict priority pollutants from coming into contact with stormwater, *e.g.*, restricting the use of lawn fertilizers rather than end-of-pipe treatment. These strategies shall include program priorities and a schedule of activities to address those priorities and an outline of which agencies will be responsible for implementing those strategies. The strategies used to reduce or eliminate these pollutants shall be documented in updates to the Stormwater Management Program Plan.

5. **MONITORING AND ASSESSMENT OF CONTROLS**

5.1 Revised monitoring program

5.1.1 Design of the Revised Monitoring Program

Within two years of the effective date of this permit the District shall develop, public notice and submit to EPA for review and approval a revised monitoring program. The District shall fully implement the program upon EPA approval. The revised monitoring program shall meet the following objectives:

1. Make wet weather loading estimates of the parameters in Table 4 from the MS4 to receiving waters. Number of samples, sampling frequencies and number and locations of sampling stations must be adequate to ensure data are statistically significant and interpretable.
2. Evaluate the health of the receiving waters, to include biological and physical indicators such as macroinvertebrates and geomorphologic factors. Number of samples, frequencies and locations must be adequate to ensure data are statistically significant and interpretable for long-term trend purposes (not variation among individual years or seasons).
3. Include any additional necessary monitoring for purposes of source identification and wasteload allocation tracking. This strategy must align with the Consolidated TMDL Implementation Plan required in Part 4.10.3 For all pollutants in Table 4 monitoring must be adequate to determine if relevant WLAs are being attained within specified timeframes in order to make modifications to relevant management programs, as necessary.

Table 4
Monitoring Parameters

Parameter
<i>E. coli</i>
Total nitrogen
Total phosphorus
Total Suspended Solids
Cadmium
Copper
Lead
Zinc
Trash

4. All chemical analyses shall be performed in accordance with analytical methods approved under 40 C.F.R. Part 136. When there is not an approved analytical method, the applicant may use any suitable method as described in Section 5.7 herein, but must provide a description of the method.

5.1.2 Utilization of the Revised Monitoring Program

The permittee must use the information to evaluate the quality of the stormwater program and the health of the receiving waters at a minimum to include:

1. The permittee shall estimate annual cumulative pollutant loadings for pollutants listed in Table 4. Pollutant loadings and, as appropriate, event mean concentrations, will be reported in DMRs and annual reports on TMDL implementation for pollutants listed in Table 4 in discharges from the monitoring stations in Table 5.
2. The permittee shall perform the following activities at least once during the permit term, but no later than the fourth year of this permit:
 - a. Identify and prioritize additional efforts needed to address water quality exceedances, and receiving stream impairments and threats;
 - b. Identify water quality improvements or degradation

Upon approval of the Revised Monitoring Program by EPA Region III, or 2 years from the effective date of this permit, whichever comes first, the permittee shall begin implementation of the Revised Monitoring Program.

5.2 Interim Monitoring

Until such time as EPA has approved the Revised Monitoring Program, the permittee shall implement the following monitoring program:

5.2.1 Wet Weather Discharge Monitoring

The permittee shall monitor for the parameters identified in Table 4 herein, at the locations listed in Table 5 herein. Monitoring frequency for chemical/physical parameters shall be taken by at least three times per year at a minimum. This does not include a geomorphologic assessment and/or physical habitat assessment. The permittee shall conduct sampling as provided in 40 C.F.R. § 122.21(g)(7).

The permittee shall monitor and provide an annual Discharge Monitoring Report for the period of interim monitoring.

TABLE 5
Monitoring Stations

A. Anacostia River Sub Watershed Monitoring Sites
1. Gallatin Street & 14 th Street N.E. across from the intersection of 14 th St. and Gallatin St. in

an outfall (MS-2)
2. Anacostia High School/Anacostia Recreation Center – Corner of 17 th St and Minnesota Ave SE
B. Rock Creek Subwatershed Monitoring Sites
1. Walter Reed -- Fort Stevens Drive -- 16 th Street and Fort Stevens Road, N.W. at an outfall (MS-6)
2. Soapstone Creek -- Connecticut Avenue and Ablemarle Street N.W. at an outfall (MS-5)
C. Potomac River Subwatershed Monitoring Sites
1. Battery Kemble Creek-49th and Hawthorne Streets, N.W. at an outfall (MS-4)
2. Oxon Run-Mississippi Avenue and 15 th Street, S.E. into Oxon Run via an outfall (MS-1)

The District may revise this list of sites in accordance with its revised monitoring program in Section 5.1 herein. Otherwise, changes to the above MS4 monitoring stations and/or sites for any reason shall be considered a major modification to the permit subject to the reopening clause.

During the interim monitoring period for the pollutants listed in Table 4, demonstration of compliance will be calculated using the procedures identified in the SWMP, the approved Anacostia River TMDL Implementation Plan, and/or other appropriate modeling tools and data on management practices efficiencies. The annual report will provide all monitoring data, and a brief synthesis of whether the data indicate that relevant wasteload allocations and other relevant targets are being achieved.

5.2.2 Storm Event Data

In addition to the parameters listed above, the permittee shall continue to maintain records of the date and duration (in hours) of the storm events sampled; rainfall measurements or estimates (in inches) of the storm event which generated the sampled runoff; the duration (in hours) between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event; and a calculated flow estimate of the total volume (in gallons) and nature of the discharge sampled.

5.2.3 Sample Type, Collection, and Analysis

The following requirements apply only to samples collected for Part 5.2.1, Representative Monitoring.

1. For discharges from holding ponds or other impoundments with a retention period greater than 24 hours, (estimated by dividing the volume of the detention pond by the estimated volume of water discharged during the 24 hours previous to the time that the sample is collected) a minimum of one sample shall be taken for pollutants listed in Table 4 including temperature, DO, pH and specific conductivity. For all parameters, data shall be reported for the entire event of the discharge pursuant to 40 C.F.R. § 122.26(d)(2)(iii).
2. All such samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. Samples may be taken with a continuous sampler or as a combination of a minimum of three sample aliquots taken in each hour of discharge for the entire discharge, with each aliquot being separated by a minimum period of fifteen minutes.
3. Analysis and collection of samples shall be done in accordance with the most recent EPA approved laboratory methods and procedures specified at 40 C.F.R. Part 136 and its subsequent amendments.

5.2.4 Sampling Waiver

When a discharger is unable to collect samples due to adverse climatic conditions, the discharger must submit in lieu of sampling data a description of why samples could not be collected, including available documentation of the event.

Adverse climatic conditions which may prohibit the collection of samples includes weather conditions that create dangerous conditions for personnel (such as local flooding, high winds, hurricane, tornadoes, electrical storms, etc.).

5.3 Dry Weather Monitoring

5.3.1 Dry Weather Screening Program

The permittee shall continue with ongoing efforts to detect the presence of illicit connections and improper discharges to the MS4 pursuant to the District SWMP. The permittee shall perform the following: (1) continue to screen known problem sewersheds within the District based on past screening activities; (2) continue to inventory all MS4 outfalls in the District and inspect all outfalls by the end of the permit term; and (3) ensure that the dry weather screening program has addressed all watersheds within the permit term. The screening shall be sufficient to estimate the frequency and volume of dry weather discharges and their environmental impact.

5.3.2 Screening Procedures

Screening may be developed and/or modified based on experience gained during actual field screening activities. The permittee shall establish a protocol which requires screening to ensure that such procedures are occurring, but such protocol need not conform to the procedures published at 40 C.F.R. § 122.26(d)(1)(iv)(D). The permittee shall describe the protocol actually used in each Annual Report with a justification for its use. The procedures described in the SWMP shall be used as guidance.

5.3.3 Follow-up on Dry Weather Screening Results

The permittee shall continue to implement its enforcement program for locating and ensuring elimination of all suspected sources of illicit connections and improper disposal identified during dry weather screening activities. The permittee shall report the results of such implementation in each Annual Report.

5.4. Area and/or Source Identification Program

The permittee shall continue to implement a program to identify, investigate, and address areas and/or sources within its jurisdiction that may be contributing excessive levels of pollutants to the MS4 and receiving waters, including but not limited to those pollutants identified in Table 4 herein.

5.5 Flow Measurements

The permittee shall continue to select and use appropriate flow measurement devices and methods consistent with accepted scientific practices to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device.

5.6 Monitoring and Analysis Procedures

5.6.1 Monitoring must be conducted according to laboratory and test procedures approved under 40 C.F.R. Part 136 and subsequent amendments, unless other test procedures have been specified in the permit.

5.6.2 The permittee is authorized to use a more current or sensitive (i.e., lower) detection method than the one identified in 40 C.F.R. Part 136 exists for a particular parameter, including but not limited to PCBs (Method 1668B) and mercury (Method 1631E). If used, the permittee shall report using the more current and/or more sensitive method for compliance reporting and monitoring purposes.

5.6.3 EPA reserves the right to modify the permit in order to require a more sensitive method for measuring compliance with any pollutant contamination levels, consistent with 40 CFR, Part 136, should it become necessary.

5.7 Reporting of Monitoring Results

The permittee shall continue to report monitoring results annually in a Discharge Monitoring Report. If NetDMR (<http://www.epa.gov/netdmr/>) is unavailable to any of the following then the original and one copy of the Report are to be submitted at the following addresses:

NPDES Permits Branch
(3WP41)

U.S. EPA Region III
Water Protection Division
1650 Arch Street
Philadelphia, PA 19103-2029

National Marine Fisheries Service/Northeast Region
Protected Resource Division
55 Great Republic Drive

Gloucester, Massachusetts
01930-2276

Monitoring results obtained during the previous year shall be summarized and reported in the Annual Report.

5.8 Additional Monitoring by the Permittee

If the permittee monitors (for the purposes of this permit) any pollutant more frequently than required by this permit, using laboratory and test procedures approved under 40 C.F.R. Part 136 and subsequent amendments or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the annual Discharge Monitoring Report. Such frequency shall also be indicated.

5.9 Retention of Monitoring Information

The permittee shall continue to retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation for a period of at least five(5) years from the date of the sample, measurement or report. This period may be extended by request of EPA at any time.

5.10 Record Content

Records of monitoring information shall include:

1. The date, exact location, time and methods of sampling or measurements;
2. The individual(s) who performed the sampling or measurements;
3. The date(s) analyses were performed;
4. The individual(s) who performed the analyses;
5. The analytical techniques or methods used; and

6. The results of such analyses.

6. **REPORTING REQUIREMENTS**

The permittee shall comply with the reporting requirements identified in this section, including but not limited to the deliverables identified in Table 6 below.

TABLE 6
Reporting Requirements

Submittal	Deadline
Discharge Monitoring Report	Each year on the anniversary of the effective date of the permit (AEDOP)
Annual Report	Each year on the AEDOP.
MS4 Permit Application	Six months prior to the permit expiration date.

6.1 **Discharge Monitoring Reports**

The permittee shall provide discharge monitoring reports per Part 5.7 of this permit on the quality of stormwater discharges from the MS4 for all analytical chemical monitoring stipulated in Part 5 of this permit.

6.2 **Annual Reporting**

The permittee shall submit an Annual Report to EPA on or by the effective yearly date of the permit for the duration of the permitting cycle. At the same time the Annual Report it submitted to EPA it shall also be posted on the District's website at an easily accessible location. If the annual report is subsequently modified per EPA approval (part 6.2.3 of this permit) the updated report shall be posted on the District's website.

6.2.1 **Annual Report.**

The Annual Report shall follow the format of the permit as written, address each permit requirement, and also include the following elements:

- a. A review of the status of program implementation and compliance (or non-compliance) with all provisions and schedules of compliance contained in this permit, including documentation as to compliance with performance standards and other provisions and deliverables contained in Section 4 herein;
- b. A review of monitoring data and any trends in estimated cumulative annual pollutant loadings, including TMDL WLAs and TMDL implementation activities;

- c. An assessment of the effectiveness of controls established by the SWMP;
- d. An assessment of the projected cost of SWMP implementation for the upcoming year (or longer) and a description of the permittee's budget for existing stormwater programs, including: (i) an overview of the permittee's financial resources and budget, (ii) overall indebtedness and assets, (iii) sources for funds for stormwater programs; and (iv) a demonstration of adequate fiscal capacity to meet the requirements of this permit, subject to the (a) the federal Anti-Deficiency Act, 31 U.S.C. §§ 1341, 1342, 1349, 1351, (b) the District of Columbia Anti-Deficiency Act, D.C. Official Code §§ 47-355.01-355.08 (2001), (c) D.C. Official Code § 47-105 (2001), and (d) D.C. Official Code § 1-204.46 (2006 Supp.), as the foregoing statutes may be amended from time to time;
- e. A summary describing the number and nature of enforcement actions, inspections, and public education programs and installation of control systems;
- f. Identification of water quality improvements or degradation through application of a measurable performance standard as stated throughout this permit;
- g. Results of storm and water quality modeling and its use in planning installation of control systems and maintenance and other activities;
- h. An assessment of any SWMP modifications needed to meet the requirements of this permit;
- i. Revisions, if necessary, to the assessments of controls and the fiscal analysis reported in the permit application under 40 C.F.R. § 122.26(d)(2)(iv) and (v);
- j. Methodology to assess the effects of the Stormwater Management Program (SWMP);
- k. Annual expenditures and budget for the year following each annual report;
- l. A summary of commitments for the next year and evaluation of the commitments from the previous year;
- m. A summary of the monitoring data for stormwater and ambient sampling that is collected in the previous year and the plan, including identification of monitoring locations, to collect additional data for the next year;
- n. The amount of impervious cover within the District, and within the three major watersheds in the District (Anacostia, Potomac and Rock Creek);
- o. The percentage of effective impervious cover reduced annually, including but not limited to the number and square footage of green roofs installed in the District, including the square footage of drainage managed by practices that meet the performance standard in 4.1.1; and
- p. An analysis of the work to be performed in the next successive year, including performance measures for those tasks. In the following year, progress with those performance measures shall be part of the Annual Report. The basis for each of the performance standards, which will be used as tools for evaluating environmental results and determining the success of each MS4 activity, shall be described incorporating an integrated program approach that considers all programs and projects which have a direct as well as an indirect affect on stormwater management quantity and quality within the District. The report shall also provide an update of the fiscal analysis for each year of the permit as required by 40 C.F.R. § 122.26(d)(2)(vi).

6.2.2 Annual Report Meeting

Within 12 months of the effective date of this permit the District shall convene an annual report meeting with EPA to present annual progress and plans for the following year. In conjunction with this meeting the annual written report may consist of presentation materials summarizing all required elements of the annual report rather than a lengthy written report, as long as all required elements are included. Following this first annual reporting meeting EPA and the District shall determine if the meeting and associated presentation materials constitute an effective reporting mechanism. With the agreement of both EPA and the District the annual reporting meeting and the use of summarized presentation materials in lieu of a lengthy written report may be extended for the remainder of the permit term.

6.2.3 Annual Report Revisions

Each Annual Report may be revised with written approval by EPA. The revised Report will become effective after its approval.

6.2.4 Signature and Certification

The permittee shall sign and certify the Annual Report in accordance with 40 C.F.R §122.22(b), and include a statement or resolution that the permittee's governing body or agency (or delegated representative) has reviewed or been appraised of the content of such submissions. The permittee shall provide a description of the procedure used to meet the above requirement.

6.2.5 EPA Approval

In reviewing any submittal identified in Table 1 or 6, EPA may approve or disapprove each submittal. If EPA disapproves any submittal, EPA shall provide comments to the permittee. The permittee shall address such comments in writing within thirty (30) days of receipt of the disapproval from EPA. If EPA determines that the permittee has not adequately addressed the disapproval/comments, EPA may revise that submittal or portions of that submittal. Such revision by EPA is effective thirty (30) days from receipt by the permittee. Once approved by EPA, or in the event of EPA disapproval, as revised by EPA, each submission shall be an enforceable element of this permit.

6.3 MS4 Permit Application

The permittee develop a permit Application based on the findings presented in each of the Annual SWMP Reports submitted during the permitting cycle to be submitted six months prior to the expiration date of the permit. The permit application shall define the next iterative set of objectives for the program and provide an analysis to demonstrate that these objectives will be achieved in the subsequent permit term.

7. STORMWATER MODEL

The permittee shall continue to update and report all progress made in developing a Stormwater Model and Geographical Information System (GIS) to EPA on an annual basis as an attachment to each Annual Report required herein.

On an annual basis, the permittee shall report on pollutant load reductions throughout the area covered by this permit using the statistical model developed by DDOE or other appropriate model. In the annual update, the permittee shall include, at a minimum, other applicable components which are not only limited to those activities identified in Section 6 herein, but which are necessary to demonstrate the effectiveness of the permittee's Stormwater Management Program toward implementing a sustainable strategy for reducing stormwater pollution runoff to the impaired waters of the District of Columbia.

Assess performance of stormwater on-site retention projects through monitoring, modeling and/or estimating storm retention capacity to determine the volume of stormwater removed from the MS4 in a typical year of rainfall as a result of implementing stormwater controls. This provision does not require all practices to be individually monitored, only that a reasonable evaluation strategy must provide estimates of overall volume reductions by sewershed.

8. STANDARD PERMIT CONDITIONS FOR NPDES PERMITS

8.1 Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and may result in an enforcement action; permit termination, revocation and reissuance, or modification; and denial of a permit renewal application.

8.2 Inspection and Entry

The permittee shall allow EPA, or an authorized representative, and/or the District's contractor(s)/subcontractor(s), upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises at reasonable times where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be maintained under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), processes, or operations regulated or required under this permit; and

4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

8.3 Civil and Criminal Penalties for Violations of Permit Conditions

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

The Clean Water Act provides that any person who violates Sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act, or any permit condition or limitation implementing such section, or any requirement imposed in an approved pretreatment program and any person who violates any Order issued by EPA under Section 301(a) of the Act, shall be subject to a civil penalty not to exceed \$25,000 per day for each violation. Pursuant to the Civil Monetary Penalty Inflation Adjustment Rule, EPA has raised the statutory maximum penalty for such violations to \$37,500 per day for each such violation. 74 Fed. Reg. 626 (Jan. 7, 2009). The Clean Water Act also provides for an action for appropriate relief including a permanent or temporary injunction.

Any person who negligently violates Section 301, 302, 305, 307, 308, 318, or 405 of the Clean Water Act, any permit condition or limitation implementing any such section, shall be punished by a criminal fine of not less than \$5,000 nor more than \$50,000 per day of such violation, or by imprisonment for not more than 3 years, or by both. Any person who knowingly violates any permit condition or limitation implementing Section 301, 302, 305, 307, 308, 318, or 405 of the Clean Water Act, and who knows at the time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000, or by imprisonment of not more than 15 years, or by both.

8.4 Duty to Mitigate

The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.

In the event that the permittee or permitting authority determines that discharges are causing or contributing to a violation of applicable WQS, the permittee shall take corrective action to eliminate the WQS exceedance or correct the issues and/or problems by requiring the party or parties responsible for the alleged violation(s) comply with Part I.C.1 (Limitations to Coverage) of this permit. The methods used to correct the WQS exceedances shall be documented in subsequent annual reports and in revisions to the Stormwater Management Program Plan.

8.5 Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

1. Violation of any terms or conditions of this permit;
2. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;
3. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge;
4. Information newly acquired by the Agency, including but not limited to the results of the studies, planning, or monitoring described and/or required by this permit;
5. Material and substantial facility modifications, additions, and/or expansions;
6. Any anticipated change in the facility discharge, including any new significant industrial discharge or changes in the quantity or quality of existing industrial discharges that will result in new or increased discharges of pollutants; or
7. A determination that the permitted activity endangers human health or the environment and that it can only be regulated to acceptable levels by permit modification or termination.

The effluent limitations expressed in this permit are based on compliance with the District of Columbia's water quality standards in accordance with the Clean Water Act. In the event of a revision of the District of Columbia's water quality standards, this document may be modified by EPA to reflect this revision.

The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition. When a permit is modified, only conditions subject to modification are reopened.

8.6 Retention of Records

The permittee shall continue to retain records of all documents pertinent to this permit not otherwise required herein, including but not limited copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least five (5) years from the expiration date of this permit. This period may be extended by request of EPA at any time.

8.7 Signatory Requirements

All Discharge Monitoring Reports, plans, annual reports, certifications or information either submitted to EPA or that this permit requires be maintained by the permittee shall be signed by either a principal executive officer or ranking elected official, or a duly authorized representative of that person. A person is a duly authorized representative only if: (i) the

authorization is made in writing by a person described above and submitted to EPA; and (ii) the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of manager, operator, superintendent, or position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for an agency. (A duly authorized representative may thus be either a named individual or any individual occupying a named position).

If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new notice satisfying the requirements of this paragraph must be submitted to EPA prior or together with any reports, information, or applications to be signed by an authorized representative.

8.8 Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Act, 33 U.S.C. § 1321.

8.9 District Laws, Regulations and Ordinances

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable District law, regulation or ordinance identified in the SWMP. In the case of "exemptions and waivers" under District law, regulation or ordinance, Federal law and regulation shall be controlling.

8.10 Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

8.11 Severability

The provisions of this permit are severable, and if any provisions of this permit, or the application of any provision of this permit to any circumstances is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

8.12 Transfer of Permit

In the event of any change in ownership or control of facilities from which the authorized discharge emanates, the permit may be transferred to another person if:

1. The current permittee notifies the EPA, in writing of the proposed transfer at least 30 days in advance of the proposed transfer date;

2. The notice includes a written agreement between the existing and new permittee containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
3. The EPA does not notify the current permittee and the new permittee of intent to modify, revoke and reissue, or terminate the permit and require that a new application be submitted.

8.13 Construction Authorization

This permit does not authorize or approve the construction of any onshore or offshore physical structures or facilities or the undertaking of any work in any navigable waters.

8.14 Historic Preservation

During the design stage of any project by the Government of the District of Columbia within the scope of this permit that may include ground disturbance, new and existing or retrofit construction, or demolition of a structure, the Government of the District of Columbia shall notify the Historic Preservation liaison and provide the liaison planning documents for the proposed undertaking. The documents shall include project location; scope of work or conditions; photograph of the area/areas to be impacted and the methods and techniques for accomplishing the undertaking. Depending on the complexity of the undertaking, sketches, plans and specifications shall also be submitted for review. The documentation will enable the liaison to assess the applicability of compliance procedures associated with Section 106 of the National Historic Preservation Act. Among the steps in the process are included:

1. The determination of the presence or absence of significant historic properties (architectural, historic or prehistoric). This can include the evaluation of standing structures and the determination of the need for an archaeological survey of the project area.
2. The evaluation of these properties in terms of their eligibility for nomination to the National Register of Historic Places.
3. The determination of the effect that the proposed undertaking will have on these properties.
4. The development of mitigating measures in conjunction with any anticipated effects.

All such evaluations and determinations will be presented to the Government of the District of Columbia for its concurrence.

If an alternate Historic Preservation procedure is approved by EPA in writing during the term of this permit, the alternate procedure will become effective after its approval.

8.15 Endangered Species

The U.S. Fish and Wildlife Service (FWS) has indicated that Hay's Spring Amphipod, a Federally listed endangered species, occurs at several locations in the District of Columbia. The National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries) has indicated that the endangered shortnose sturgeon occurs in the Potomac River drainage and may occur within the District of Columbia. The FWS and NOAA Fisheries indicate that at the present time there is no evidence that the ongoing stormwater discharges covered by this permit are adversely affecting these Federally-listed species. Stormwater discharges, construction, or any other activity that adversely affects a Federally-listed endangered or threatened species are not authorized under the terms and conditions of this permit.

The monitoring required by this permit will allow further evaluation of potential effects on these threatened and endangered species once monitoring data has been collected and analyzed. EPA requires that the permittee submit to NOAA Fisheries, at the same time it submits to EPA, the Annual Outfall Discharge Monitoring Report of the monitoring data which will be used by EPA and NOAA Fisheries to further assess effects on endangered or threatened species. If this data indicates that it is appropriate, requirements of this NPDES permit may be modified to prevent adverse impacts on habitats of endangered and threatened species.

The above-referenced Report of monitoring data is required under this permit to be sent on an annual basis to:

The United States Environmental Protection Agency
Region III (3WP41)
Water Protection Division
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

National Marine Fisheries Service/Northeast Region
Protected Resource Division
55 Great Republic Drive
Gloucester, Massachusetts 01930-2276

8.16 Toxic Pollutants

If a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under section 307(a) of the Act, 33 U.S.C. § 1317(a), for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, the permittee shall comply with such standard or prohibition even if the permit has not yet been modified to comply with the requirement.

8.17 Bypass

8.17.1 Bypass not exceeding limitations. In accordance with 40 C.F.R. § 122.41(m), the permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation.

8.17.2 Notice

1. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it must submit prior notice at least ten days before the date of the bypass. See 40 C.F.R. § 122.41(m)(3)(i).
2. Unanticipated bypass. The permittee must submit notice of an unanticipated bypass as required by 40 C.F.R. § 122.41(l)(6) (24-hour notice). See 40 C.F.R. § 122.41(m)(3)(ii).

8.17.3 Prohibition of bypass. See 40 C.F.R. § 122.41(m)(4).

1. Bypass is prohibited, and EPA may take enforcement action against the permittee for bypass, unless:
 - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage as defined herein;
 - b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - c. The permittee submitted notices as required herein.
2. EPA may approve an anticipated bypass, after considering its adverse effects, if EPA determines that it will meet the three conditions listed above.

8.18 Upset

Effect of an upset: An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of 40 C.F.R. § 122.41(n) are met.

8.19 Reopener Clause for Permits

The permit may be modified or revoked and reissued, including but not limited to, any of the following reasons:

1. To incorporate any applicable effluent standard or limitation issued or approved under Sections 301, 304, or 307 of the Clean Water Act, and any other applicable provision, such as provided for in the Chesapeake Bay Agreements based on water quality considerations, and if the effluent standard or limitation so issued or approved:
 - a. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - b. Controls any pollutant not limited in the permit. The permit, as modified or reissued under this paragraph, shall also contain any other requirements of the Act then applicable; or
2. To incorporate additional controls that are necessary to ensure that the permit effluent limits are consistent with any applicable TMDL WLA allocated to the discharge of pollutants from the MS4; or
3. As specified in 40 C.F.R. §§ 122.44(c), 122.62, 122.63, 122.64, and 124.5.

8.20 Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, it must apply for and obtain a new permit. The application shall be submitted at least 180 days before the expiration date of this permit. EPA may grant permission to submit an application less than 180 days in advance but no longer than the permit expiration date. In the event that a timely and complete reapplication has been submitted and EPA is unable through no fault of the permittee, to issue a new permit before the expiration date of this permit, the terms and conditions of this permit are automatically continued and remain fully effective and enforceable.

9. PERMIT DEFINITIONS

Terms that are not defined herein shall have the meaning accorded them under section 502 of the Clean Water Act, 33 U.S.C. §§ 1251 *et seq.*, or its implementing regulations, 40 C.F.R. Part 122.

“Annual Report” refers to the consolidated Annual Report that the permittee is required to submit annually.

“Bypass” means the intentional diversion of waste streams from any portion of a treatment facility. See 40 C.F.R. § 122.41(m)(1)(i).

"CWA" means Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub.L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. (6-483 and Pub. L. 97-117, 33 U.S.C. §§ 1251 *et seq.*

"Development" is the undertaking of any activity that disturbs a surface area greater than or equal to 5,000 square feet, including new development projects and redevelopment projects. For purposes of Parts 4.1.1 through 4.1.4 of the permit the requirements apply to discharges from sites for which design or construction commenced after 18 months from the effective date of this permit or as required by District of Columbia law, whichever is sooner. The District may exempt development projects receiving site plan approval prior to this date from these requirements.

"Director" means the Regional Administrator of USEPA Region 3 or an authorized representative.

"Discharge" for the purpose of this permit, unless indicated otherwise, refers to discharges from the Municipal Separate Storm Sewer System (MS4).

"Discharge Monitoring Report", "DMR" or "Outfall Discharge Monitoring Report" includes the monitoring and assessment of controls identified in Section 5 herein.

"EPA" means USEPA Region 3.

"Green Roof" is a low-maintenance roof system that stores rainwater where the water is taken up by plants and/or transpired into the air.

"Green Technology Practices" means stormwater management practices that are used to mimic pre-development site hydrology by using site design techniques that retain stormwater on-site through infiltration, evapotranspiration, harvest and use.

"Guidance" means assistance in achieving a particular outcome or objective.

"Illicit connection" means any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.

"Illicit discharge" means any discharge to a municipal separate storm sewer that is not composed entirely of stormwater except discharges pursuant to an NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting activities, pursuant to 40 C.F.R. § 122.26(b)(2).

"Impaired Water" (or "Water Quality Impaired Water" or "Water Quality Limited Segment"): A water is impaired for purposes of this permit if it has been identified by the District or EPA pursuant to Section 303(d) of the Clean Water Act as not meeting applicable State water quality standards (these waters are called "water quality limited segments" under 40 C.F.R. 30.2(j)). Impaired waters include both waters with approved or established TMDLs, and those for which a TMDL has not yet been approved or established.

"Landfill" means an area of land or an excavation in which wastes are placed for permanent disposal, and which is not a land application unit (i.e., an area where wastes are applied onto or incorporated into the soil surface [excluding manure spreading operations] for treatment or disposal), surface impoundment, injection well, or waste pile.

"Large or Medium municipal separate storm sewer system" means all municipal separate storm sewers that are either: (1) located in an incorporated place (city) with a population of 100,000 or more as determined by the latest Decennial Census by the Bureau of Census (these cities are listed in Appendices F and G of 40 C.F.R. Part 122); or (2) located in the counties with unincorporated urbanized populations of 100,000 or more, except municipal separate storm sewers that are located in the incorporated places, townships or towns within such counties (these counties are listed in Appendices H and I of 40 C.F.R. Part 122); or (3) owned or operated by a municipality other than those described in paragraph (i) or (ii) and that are designated by the Director as part of the large or medium municipal separate storm sewer system.

"MS4" refers to either a Large or Medium Municipal Separate Storm Sewer System.

"Municipal Separate Storm Sewer" means a conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (1) owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State Law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes; (2) Designed or used to collect or convey stormwater (including storm drains, pipes, ditches, etc.); (3) not a combined sewer; and (4) not part of a Publicly-Owned Treatment Works as defined at 40 C.F.R. § 122.2.

"Offset" means a unit of measurement, either used as monetary or non-monetary compensation, as a substitute or replacement for mitigation of a stormwater control practice that has been determined to be impracticable to implement.

"Performance measure" means for purposes of this permit, a minimum set of criteria for evaluating progress toward meeting a standard of performance.

"Performance standard" means for purposes of this permit, a cumulative measure or provision for attainment of an outcome or objective.

"Permittee" refers to the Government of the District of Columbia and all subordinate District and independent agencies, such as the District of Columbia Water and Sewer Authority, directly accountable and responsible to the City Council and Mayor as authorized under the Stormwater Permit Compliance Amendment Act of 2000 and any subsequent amendments for administering, coordinating, implementing, and managing stormwater for MS4 activities within the boundaries of the District of Columbia.

"Point Source" means 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, landfill leachate collection system, vessel or other

floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff.

“Pollutant of concern” means a pollutant in an MS4 discharge that may cause or contribute to the violation of a water quality criterion for that pollutant downstream from the discharge.

“Pre-Development Condition” means the combination of runoff, infiltration and evapotranspiration rates, volumes, durations and temperatures that typically existed on the site with natural soils and vegetation before human-induced land disturbance occurred. In the context of requirements in this permit the environmental objective is a stable, natural hydrologic site condition that protects or restores to the degree relevant for that site, stable hydrology in the receiving water, which will not necessarily be the hydrologic regime of that receiving water prior to any human disturbance in the watershed.

“Retention” means the use of soils, vegetation, water harvesting and other mechanisms and practices to retain a target volume of stormwater on a given site through the functions of: pore space and surface ponding storage; infiltration; reuse, and/or evapotranspiration.

“Retrofit” means improvement in a previously developed area that results in reduced stormwater discharge volumes and pollutant loads and/or improvement in water quality over current conditions.

“Stormwater” means the flow of surface water which results from, and which occurs immediately following, a rainfall event, snow melt runoff, and surface runoff and drainage.

“Stormwater management” means (1) for quantitative control, a system of vegetative or structural measures, or both, which reduces the increased volume and rate of surface runoff caused by man-made changes to the land; and (2) for qualitative control, a system of vegetative, structural, and other measures which reduce or eliminate pollutants which might otherwise be carried by surface runoff.

“SWMP” is an acronym for Stormwater Management Program. For purposes of this permit, the term includes all stormwater activities described in the District’s SWMP Plan updated February 19, 2009, or any subsequent update, and all other strategies, plans, documents, reports, studies, agreements and related correspondences developed and used pursuant to the requirements of this permit.

“Severe property damage” means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. See 40 C.F.R. § 122.41(m)(1)(ii).

“Total Maximum Daily Load (TMDL) Units” means for purposes of this permit, the sum of individual waste load allocations (WLAs) and natural background. Unless specifically permitted otherwise in an EPA-approved TMDL report covered under the permit, TMDLs are expressed in

terms of mass per time, toxicity or other appropriate measure such as pollutant pounds of a total average annual load.

“TMDL Implementation Plan” means for purposes of this permit, a plan and subsequent revisions/updates to that plan that are designed to demonstrate how to achieve compliance with applicable waste load allocations as set forth in the permit requirements described in Section 8.1.4.

“Stormwater Management Program (SWMP)” is a modified and improved SWMP based on the existing SWMP and on information in each of the Annual Reports/Discharge Monitoring Reports. The purpose of the SWMP is to describe the list of activities that need to be done to meet the requirements of the Clean Water Act, an explanation as to why these activities will meet the Clean Water Act requirements, and a schedule for those activities.

“Upset” means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond reasonable control. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. See 40 C.F.R. § 122.41(n)(1).

“Waste pile” means any non-containerized accumulation of solid, nonflowing waste.

“Water quality standards” refers to the District of Columbia’s Surface and Ground Water Quality Standards codified at Code of District of Columbia Regulations §§ 21-1100 *et seq.*, which are effective on the date of issuance of the permit and any subsequent amendments which may be adopted during the life of this permit.

“Waters of the United States” is defined at 40 C.F.R. § 122.2.

ATTACHMENT 4

FACT SHEET

National Pollutant Discharge Elimination System (NPDES)
Municipal Separate Storm Sewer System (MS4)
Permit No. DC0000221 (Government of the District of Columbia)

NPDES PERMIT NUMBER: DC0000221 (Reissuance)

FACILITY NAME AND MAILING ADDRESS:

Government of the District of Columbia
The John A. Wilson Building
1350 Pennsylvania Avenue, N.W.
Washington, D.C. 20004

MS4 ADMINISTRATOR NAME AND MAILING ADDRESS:

Director, District Department of the Environment
1200 First Street, N.E., 6th Floor
Washington, D.C. 20002

FACILITY LOCATION:

District of Columbia's Municipal Separate Storm Sewer System (MS4)

RECEIVING WATERS:

Potomac River, Anacostia River, Rock Creek, and Stream Segments Tributary
To Each Such Water Body

INTRODUCTION:

Today's action finalizes reissuance of the District of Columbia Municipal Separate Storm Sewer System (MS4) Permit. In the Final Permit EPA has continued to integrate the adaptive management approach with enhanced control measures to address the complex issues associated with urban stormwater runoff within the corporate boundaries of the District of Columbia, where stormwater discharges via the Municipal Separate Storm Sewer System (MS4).

Since the United States Environmental Protection Agency, Region III (EPA) issued the District of Columbia (the District) its first MS4 Permit in 2000, the Agency has responded to a number of legal challenges involving both that Permit (as well as amendments thereto) and the second-round MS4 Permit issued in 2004. For the better part of ten years, the Agency has worked with various parties in the litigation, including the District and two non-governmental organizations, Defenders of Wildlife and Friends of the Earth, to address the concerns of the various parties. The Agency has engaged in both litigation and negotiation, including formal

mediation.¹ These activities ultimately led to an enhanced stormwater management strategy in the District, consisting of measurable outputs for addressing the issues raised during the litigation and mediation process.

FACILITY BACKGROUND AND DESCRIPTION:

The Government of the District of Columbia owns and operates its own MS4, which discharges stormwater from various outfall locations throughout the District into its waterways.²

On April 21, 2010 EPA public noticed the Draft Permit. The Draft Fact Sheet published with that Draft Permit contains more extensive permit background information, and the reader is referred to that document for the history of the District of Columbia MS4 permit.

The public comment period closed on June 4, 2010. EPA received comments from 21 individual commenters and an additional 53 form letters. The Draft Permit, Draft Fact Sheet, and comments received on those documents are all available at: http://www.epa.gov/reg3wapd/npdes/draft_permits.html. The Final Permit reflects many of the comments received. EPA is simultaneously releasing a responsiveness summary responding to these comments.

ACTION TO BE TAKEN:

EPA is today reissuing the District of Columbia NPDES MS4 Permit. The Final Permit replaces the 2004 Permit, which expired on August 18, 2009 and has been administratively extended since that time. The Final Permit incorporates concepts and approaches developed from studies and pilot projects that were planned and implemented by the District under the 2000 and 2004 MS4 permits and modifying Letters of Agreement, and implements Total Maximum Daily Loads (TMDLs) that have been finalized since the prior permit was issued, including the Chesapeake Bay TMDL. A number of applicable measurable performance standards have been incorporated into the Final Permit. These and other changes between the 2004 Permit and today's Final Permit are reflected in a Comparison Document that is part of today's Permit issuance.

WATER QUALITY IN DISTRICT RECEIVING WATERS:

The District's *2008 Integrated Report to the Environmental Protection Agency and U.S. Congress Pursuant to Sections 305(b) and 303(d) Clean Water Act*³ documents the serious water

1 A procedural history of Permit appeals can be viewed at the EPA Environmental Appeals Board web: http://yosemite.epa.gov/oa/EAB_Web_Docket.nsf/77355bee1a56a5aa8525711400542d23/b5e5b68e89edabe98525714f00731c6f!OpenDocument&Highlight=2,municipal.

2 Portions of the District are served by a combined sanitary and storm sewer system. The discharges from the combined sewer system are not subject to the MS4 permit, but are covered under NPDES Permit No. xxxx issued to the District of Columbia Water and Sewer Authority.

3 District Department of the Environment, *The District of Columbia Water Quality Assessment, 2008 Integrated Report to the Environmental Protection Agency and U.S. Congress Pursuant to Sections 305(b) and 303(d) Clean Water Act* (hereinafter "2008 Integrated Report").

quality impairments in the surface waters in and around the District. A number of the relevant designated uses are not being met, *e.g.*, aquatic life, fish consumption, and full body contact, and there are a number of specific pollutants of concern that have been identified (for additional discussion on relevant TMDLs *see* Section 4.10 of this Final Fact Sheet).

Commenters on the Draft Permit expressed some frustration over very slow progress or even lack of progress after a decade of implementation of the MS4 program and even longer for other water quality programs. EPA appreciates this concern. Although the District's receiving waters are affected by a range of discharge sources, discharges from the MS4 are a significant contributor of pollutants and cause of stream degradation. EPA also recognizes, however, that stormwater management efforts that achieve a reversal of the ongoing degradation of water quality caused by urban stormwater discharges entail a long term, multi-faceted approach.

Consistent with the federal stormwater regulations for characterizing discharges from the MS4 (40 C.F.R. §122.26(d)(2)(iii)), the first two permit terms for the District's MS4 program required end-of-pipe monitoring to determine the type and severity of pollutants discharging via the system. The monitoring program was not designed to evaluate receiving water quality *per se*, therefore detection of trends or patterns was not reasonably possible. Today's Final Permit includes requirements for a Revised Monitoring Program, and one of the objectives for the program is to use a suite of approaches and indicators to evaluate and track water quality over the long-term (*see* discussion of Section 5.1 in this Final Fact Sheet).

There have been identified improvements in some areas. For example the *2008 Integrated Report* noted improvements in the diversity of submerged aquatic vegetation in the Potomac River, as well as improvements in fish species richness in Rock Creek. Biota metrics are often the best indicators of the integrity of any aquatic system.

EPA also notes that there are a variety of indirect measures indicative of improvement. The federal stormwater regulations foresaw the difficulty, especially in the near-term, of detecting measurable improvement in receiving waters, and relied instead on indirect measures, such as estimates of pollutant load reductions (40 C.F.R. §122.26(d)(2)(v)). The District documents these types of indirect measures in its annual reports, *e.g.*, tons of solids collected from catch basin clean-outs, amount of household hazardous waste collected, number of trees planted, square footage of green roofs installed, and many other measures of success.⁴

EPA believes that documenting trends in water quality, whether improvements, no change, or even further degradation, is an important element of a municipal water quality program. Today's Final Permit recognizes this principle, both in the types of robust measures required as well as the transition to new monitoring paradigms. EPA encourages all interested parties to provide the District with input during the development of these program elements.

THIS FACT SHEET:

http://ddoe.dc.gov/ddoe/frames.asp?doc=/ddoe/lib/ddoe/information2/water.reg.leg/DC_IR_2008_Revised_9-9-2008.pdf

4 District MS4 Annual Reports can be found at: <http://ddoe.dc.gov/ddoe/cwp/view,a,1209,q,495855.asp>

This Final Fact Sheet is organized to correspond with the chronological organization and numbering in today's Final Permit. Where descriptions or discussions may be relevant to more than one element of the Final Permit the reader will be referred to the relevant section(s).

To keep today's Final Fact Sheet of readable length, many of the elements included in the fact sheet published with the Draft Permit (Draft Fact Sheet) on April 21, 2010 have not been repeated, but are referenced. Readers are referred to the Draft Fact Sheet published with the Draft Permit for additional discussion on provisions that have been finalized as proposed.⁵ The Final Fact Sheet does discuss significant changes since the 2004 Permit (even if discussed in the Draft Fact Sheet). The Final Fact Sheet also contains additional explanation of the Final Permit where commenters requested additional clarification. In addition, this Final Fact Sheet explains modifications to the Final Permit where provisions were changed in response to comments.

In many cases EPA made a number of very simple modifications to the Final Permit, *e.g.*, a word, phrase, or minor reorganization, simply for purposes of clarification. These modifications were not intended to change the substance of the permit provisions, only to clarify them. Most of those types of edits are not discussed in this Final Fact Sheet, but EPA has provided a Comparison Document of the Draft and Final Permits for readers who would like that level of detail.

Many commenters noted that the Draft Permit was not logically organized. EPA agrees. The major reorganization principles include:

- 1) There is a new Section 3, Stormwater Management Program (SWMP) Plan consolidating the various plans, strategies and other documents developed in fulfillment of permit requirements.
- 2) All implementation measures, *i.e.*, those stipulating management measures and implementation policies, are included in Section 4 of today's Final Permit. This includes "Source Identification" elements (Section 3 in the Draft Permit) and "Other Applicable Provisions" elements (Section 8 in the Draft Permit), which included TMDL requirements.
- 3) All monitoring requirements are consolidated in Section 5 of the Final Permit.
- 4) All reporting requirements are consolidated in Section 6 of the Final Permit.

EPA also refers readers to the Responsiveness Summary released today along with the Final Permit and Final Fact Sheet, for responses to comments and questions received on the Draft Permit. That document contains additional detailed explanations of the rationale for changes made to the Draft Permit in the Final Permit.

Finally, EPA made significant effort to avoid appending or incorporating by reference other documents containing permit requirements into the Final Permit. In the interest of clarity

⁵ The Permit and Fact Sheet proposed on April 21, 2010 can be viewed at: http://www.epa.gov/reg3wapd/npdes/draft_permits.html

and transparency EPA, to the extent possible, has included all requirements directly in the permit. Thus, EPA reviewed a variety of documents with relevant implementation measures, *e.g.*, TMDL Implementation Plans and the 2008 Modified Letter of Agreement to the 2004 permit⁶, and translated elements of those plans and strategies into specific permit requirements that are now contained in the Final Permit. This Fact Sheet provides an explanation of the sources of provisions that are significant and are a direct result of one of those strategies.

1. DISCHARGES AUTHORIZED UNDER THIS PERMIT

(1.2 Authorized Discharges): The Final Permit authorizes certain non-stormwater discharges, including discharges from water line flushing. One commenter noted that many of these discharges, especially from potable water systems, contain concentrations of chlorine that may exceed water quality standards. EPA agrees, and has therefore clarified that dechlorinated water line flushing is authorized to be discharged under the Final Permit.

(1.4 Discharge Limitations): Comments on the language in Part 1.4 varied widely. Some commenters did not believe it was reasonable to require discharges to meet water quality standards. Other commenters believed this to be an unambiguous requirement of the Clean Water Act.

Today's Final Permit is premised upon EPA's longstanding view that the MS4 NPDES permit program is both an iterative and an adaptive management process for pollutant reduction and for achieving applicable water quality standard and/or total maximum daily load (TMDL) compliance. *See generally*, "National Pollutant Discharge Elimination System Permit Application Regulations for Stormwater Discharges," 55 F.R. 47990 (Nov. 16, 1990).

EPA is aware that many permittees, especially those in highly urbanized areas such as the District, likely will be unable to attain all applicable water quality standards within one or more MS4 permit cycles. Rather the attainment of applicable water quality standards as an incremental process is authorized under section 402(p)(3)(B)(iii) of the Clean Water Act, 33 U.S.C. § 1342(p)(3)(B)(iii), which requires an MS4 permit "to reduce the discharge of pollutants to the maximum extent practicable" (MEP) "and such other provisions" deemed appropriate to control pollutants in municipal stormwater discharges. To be clear, the goal of EPA's stormwater program is attainment of applicable water quality standards, but Congress expected that many municipal stormwater dischargers would need several permit cycles to achieve that goal.

Specifically, the Agency expects that attainment of applicable water quality standards in waters to which the District's MS4 discharges, requires staged implementation and increasingly more stringent requirements over several permitting cycles. During each cycle, EPA will continue to review deliverables from the District to ensure that its activities constitute sufficient progress toward standards attainment. With each permit reissuance EPA will continue to increase

⁶ District Department of the Environment, *Modification to the Letter of Agreement dated November 27, 2007 for the NPDES Municipal Separate Storm Sewer (MS4) Permit DC0000222* (2008) <http://www.epa.gov/reg3wapd/npdes/pdf/DCMS4/Letter.PDF>

stringency until such time as standards are met in all receiving waters. Therefore today's Final Permit is clear that attainment of applicable water quality standards and consistency with the assumptions and requirements of any applicable WLA are requirements of the Permit, but, given the iterative nature of this requirement under CWA Section 402(p)(3)(B)(iii), the Final Permit is also clear that "compliance with all performance standards and provisions contained in the Final Permit shall constitute adequate progress toward compliance with DCWQS and WLAs for this permit term" (Section 1.4).

EPA believes that permitting authorities have the obligation to write permits with clear and enforceable provisions and thus the determination of what is the "maximum extent practicable" under a permit is one that must be made by the permitting authority and translated into provisions that are understandable and measurable. In this Final Permit EPA has carefully evaluated the maturity of the District stormwater program and the water quality status of the receiving waters, including TMDL wasteload allocations. In determining whether certain measures, actions and performance standards are practicable, EPA has also looked at other programs and measures around the country for feasibility of implementation. Therefore today's Final Permit does not qualify any provision with MEP thus leaving this determination to the discretion of the District. Instead each provision has already been determined to be the maximum extent practicable for this permit term for this discharger.

EPA modified the language in the Final Permit to provide clarity on the expectations consistent with the preceding explanation. Specifically Section 1.4.2 of the Final Permit requires that discharges 'attain' applicable wasteload allocations rather than just 'be consistent' with them, since the latter term is somewhat ambiguous.

In addition, the general discharge limitation 'no increase in pollutant loadings from discharges from the MS4 may occur to receiving waters' was removed because of the difficulty in measuring, demonstrating and enforcing this provision. Instead, consistent with EPA's belief that the Final Permit must include all of the enforceable requirements that would achieve this principle, the following discharge limitation is substituted: "comply with all other provisions and requirements contained in this permit, and in plans and schedules developed in fulfillment of this permit."

In addition, EPA made the following modifications: "Compliance with the performance standards and provisions contained in Parts 2 through 8 of this permit shall constitute adequate progress towards compliance with DCWQS and WLAs for this permit term" (*underlined text added*) (Section 1.4 of the Final Permit). EPA eliminated circularity with the addition of "Parts 2 through 8", clarifying that this requirement does not circle back to include the statements in 1.4.1 and 1.4.2, but rather interprets them. Also, although WLAs are a mechanism for attainment of water quality standards, EPA added the specific language "and WLAs" to make this concept explicit rather than just implicit. In addition this revised language emphasizes that the specific measures contained in the Final Permit, while appropriate for this permit term, will not necessarily constitute full compliance in subsequent permit terms. It is the expectation that with each permit reissuance, additional or enhanced requirements will be included with the objective

of ensuring that MS4 discharges do not cause or contribute to an exceedance of applicable water quality standards, including attainment of relevant WLAs.

2. LEGAL AUTHORITY, RESOURCES, AND STORMWATER PROGRAM ADMINISTRATION

(2.1 Legal Authority): Several commenters pointed out that there were a number of requirements in the Draft Permit without clear compliance schedules or deadlines, or with deadlines that did not correspond well to others in the permit. In the Final Permit, EPA has made several revisions to address these comments. For example, EPA changed a requirement that deficiencies in legal authority must be remedied “as soon as possible” to a 120-day requirement for deficiencies that can be addressed through regulation, and two years for deficiencies that require legislative action (Section 2.1.1). Also, EPA increased the compliance schedule for updating the District’s stormwater regulation from twelve months to eighteen months, *id.*, so that this action could be adequately coordinated with the development of the District’s new offsite mitigation/payment-in-lieu program (for more discussion see Section 4.1.3 below).

(2.2 Fiscal Resources): One commenter suggested eliminating the reference to the District’s Enterprise Fund since funding was likely to come from a number of different budgets within the District. EPA agrees with this comment and has removed this reference.

On the other hand, many commenters noted that the implementation costs of the District’s stormwater program will be significant. EPA agrees. The federal stormwater regulations identify the importance of adequate financial resources [40 C.F.R. §122.26(d)(1)(vi) and (d)(2)(vi)]. In addition, after seeing notable differences in the caliber of stormwater programs across the country, EPA recognizes that dedicated funding is critical for implementation of effective MS4 programs.^{7,8,9} In 2009 the District established, and in 2010 revised, an impervious-based surface area fee for service to provide core funding to the stormwater program¹⁰ (understanding that stormwater-related financing may still come from other sources as they fulfill multiple purposes, *e.g.*, street and public right-of-way retrofits). In conjunction with the 2010 rule-making to revise the fee the District issued a Frequently Asked Questions document¹¹ that indicates the intent to restrict this fee to its original purpose, *i.e.*, dedicated funding to implement the stormwater program and comply with MS4 permit requirements. EPA believes this action is essential, and he expects that the District will maintain a dedicated source of funding for the stormwater program.

7 National Research Council, *Urban Stormwater Management in the United States* (2009) National Academy of Sciences http://www.nap.edu/catalog.php?record_id=12465

8 National Association of Flood and Stormwater Agencies, Funded by EPA, *Guidance for Municipal Stormwater Funding* (2006) <http://www.nafmsa.org/Guidance%20Manual%20Version%202X.pdf>

9 EPA, *Funding Stormwater Programs* (2008) http://www.epa.gov/npdes/pubs/region3_factsheet_funding.pdf

10 District of Columbia, Rule 21-566 Stormwater Fees, <http://www.dcregs.dc.gov/Gateway/RuleHome.aspx?RuleID=474056>

11 District of Columbia, FAQ Document *Changes to the District’s Stormwater Fee* (2010) http://ddoe.dc.gov/ddoe/frames.asp?doc=/ddoe/lib/ddoe/information2/water.reg.leg/Stormwater_Fee_FAQ_10-5-10_-final.pdf

3. STORMWATER MANAGEMENT PROGRAM (SWMP) PLAN

A number of commenters were confused by the wide variety of plans, strategies and other written documents required by the Draft Permit. A number of commenters were also concerned about public access to several of these documents.

In today's Final Permit EPA is clarifying that any written study, strategy, plan, schedule or other element, existing or new, is part of the District Stormwater Management Program Plan. It is EPA's intent that all elements of the program be described in this central 'Plan'. This does not mean that the Plan cannot consist of separate documents. EPA understands that stand-alone elements may aid in implementation in certain situations. However, EPA is clarifying that all such documents are inherent components of the Plan.

To address the accessibility issue EPA is also requiring that the most current version of the Plan be posted on the District website. As such, all elements that may be documented in separate documents and deliverables must be posted at this location (a hyperlink to any element of the program in a different document is sufficient).

Moreover, today's Final Permit requires the District to public notice a fully updated Plan (to include all existing and new elements required by the Final Permit) within three years of the effective date of this Final Permit, and to then submit that Plan to EPA within four years of the effective date of the Final Permit. This schedule will enable this evaluation of the Plan to be part of EPA's evaluation of the Districts stormwater management program in preparation for the next reissuance of the permit.

The Final Permit requires the District to develop a number of new initiatives. Many commenters raised concerns about the rigor and suitability of these new elements in the absence of a requirement for public input, and in the absence of EPA review and approval. In light of those concerns EPA reviewed all elements of the Draft Permit, and where appropriate has added requirements to the Final Permit both for public notice and opportunity to comment and for submittal to EPA for review and approval. Not every new element has been subjected to this requirement. However, EPA agrees that the opportunity for the public and EPA to review new program elements that will become major components of the stormwater management program is reasonable. Thus, for provisions that EPA believes will be important foundations of the program in years to come, EPA has added a requirement for public notice and EPA review and approval. A new Table 1 in the Final Permit summarizes the elements that must now be submitted to EPA for review and approval.

TABLE 1
Elements Requiring EPA Review and Approval

Element	Submittal Date (from effective date of this permit)
Anacostia River Watershed Trash Reduction Calculation Methodology (4.10)	1 year
Catch Basin Operation and Maintenance Plan (4.3.5.1)	18 months
Outfall Repair Schedule (4.3.5.3)	18 months
Off-site Mitigation/Payment-in-Lieu Program (4.1.3)	18 months
Retrofit Program (4.1.6)	2 years
Consolidated TMDL Implementation Plan (4.10.3)	2 years
Revised Monitoring Program (5.1)	2 years
Revised Stormwater Management Program Plan (3)	4 years

4. IMPLEMENTATION OF STORMWATER CONTROL MEASURES

(4.1 Standard for Long-Term Stormwater Management): One of the fundamental differences between today’s Final Permit and earlier permits is the inclusion of measurable requirements for green technology practices, sometimes referred to as “low-impact development” or “green infrastructure.” These requirements, which include green roofs, enhanced tree plantings, permeable pavements, and a performance standard to promote practices such as bioretention and water harvesting, are designed to increase the effectiveness of stormwater controls by reducing runoff volumes and associated pollutant loads.^{12,13} In past years, stormwater management requirements in permits did not include clear performance goals, numeric requirements or environmental objectives. Today’s Final Permit stipulates a specific standard for newly developed and redeveloped sites, and also emphasizes the use of “green infrastructure” controls to be used to meet the performance standard. These permit requirements are intended to improve the permit by providing clarity regarding program performance and promoting the use of technologies and strategies that do not rely solely on end-of-pipe detention measures to manage runoff. EPA notes that much of this emphasis is based on changing paradigms in stormwater science, technology and policy (see discussion below), but also points out that the groundwork for this framework was laid during the prior permit term, and all of the green infrastructure elements agreed to in the 2008 Modified Letter of Agreement to the 2004 Permit.¹⁴

In the natural, undisturbed environment precipitation is quickly intercepted by trees and other vegetation, or absorbed by soils and humic matter on the surface of the ground where it is

12 The performance of green infrastructure control measures is well-established through numerous studies and reports, many of which are available at <http://cfpub2.epa.gov/npdes/greeninfrastructure/research.cfm#research>

13 Jay Landers, *Stormwater Test Results Permit Side-by-Side Comparisons of BMPs* (2006) Civil Engineering News http://www.unh.edu/erg/civil_eng_4_06.pdf

14 District Department of the Environment, *Modification to the Letter of Agreement dated November 27, 2007 for the NPDES Municipal Separate Storm Sewer (MS4) Permit DC0000222*, (2008) <http://www.epa.gov/reg3wapd/npdes/pdf/DCMS4/Letter.PDF>

used by plants, becomes baseflow (shallow groundwater feeding waterways) or infiltrates more deeply to aquifers. During most storms very little rainfall becomes stormwater runoff where the landscape is naturally vegetated or in cases where there are permeable soils. Runoff generally only occurs with larger precipitation events, which constitute a very small proportion of the storms that occur in Washington, DC. In contrast to natural settings, traditional development practices cover large areas of the ground with impervious surfaces such as roads, driveways, sidewalks, and buildings. In addition, the remaining soils are often heavily compacted and are effectively impervious. Under developed conditions, stormwater runs off or is channeled away even during small precipitation events. The collective force of the increased stormwater flows entering the MS4 and discharging through outfalls into receiving streams scours streambeds, erodes stream banks, and causes large quantities of sediment and other entrained pollutants, such as metals, nutrients and trash, to enter the water body each time it rains^{15,16,17}. Stormwater research generally shows a high correlation between the level of imperviousness in a watershed and the degree of overall degradation of water quality and habitat. This principle is so well-settled that EPA has not included individual study results here, but refers interested readers to an excellent compendium of relevant studies compiled by the Maryland Department of Natural Resources at <http://www.dnr.state.md.us/irc/bibs/effectsdevelopment.html>.

To date stormwater management approaches generally have been focused primarily on flood management, in particular extended detention controls, such as wet ponds or dry detention basins, or on in-pipe or end-of-pipe treatment systems. Extended detention approaches are intended to reduce downstream flooding to the extent necessary to protect the public safety and private and public property. End-of-pipe systems are intended to filter or settle specific pollutants, but typically do not reduce the large suite of pollutants in storm water, nor do anything to address degradation attributable to increased discharge volumes. These approaches occurred largely by default since stormwater permits and regulations, including those with water quality objectives, did not stipulate specific, measurable standards or environmental objectives. In addition, water quality was not the primary concern during the early evolution of stormwater management practices.

There are multiple potential problems with extended detention as a water quality management practice, including the fact that receiving stream dynamics are generally based on balances of much more than just discharge rates.¹⁸ Stream stability, habitat protection and water quality are not necessarily protected by the use of extended detention practices and systems. In fact the use of practices such as wet detention basins often results in continued stream bank

15 National Research Council, *Urban Stormwater Management in the United States* (2009) National Academy of Sciences http://www.nap.edu/catalog.php?record_id=12465

16 Schueler, Thomas R., *The Importance of Imperviousness* (2000) Center for Watershed Protection, [http://yosemite.epa.gov/R10/WATER.NSF/840a5de5d0a8d1418825650f00715a27/159859e0c556f1c988256b7f007525b9/\\$FILE/The%20Importance%20of%20Imperviousness.pdf](http://yosemite.epa.gov/R10/WATER.NSF/840a5de5d0a8d1418825650f00715a27/159859e0c556f1c988256b7f007525b9/$FILE/The%20Importance%20of%20Imperviousness.pdf)

17 E. Shaver, R. Horner, J. Skupien, C. May, and G. Ridley. *Fundamentals of Urban Runoff Management: Technical and Institutional Issues – 2nd Edition*, (2007) North American Lake Management Society, Madison, WI. [http://www.deq.state.ms.us/mdeq.nsf/0/A8E8B82B89DCDDCE862573530049EEE0/\\$file/Fundamentals_full_manual_lowres.pdf?OpenElement](http://www.deq.state.ms.us/mdeq.nsf/0/A8E8B82B89DCDDCE862573530049EEE0/$file/Fundamentals_full_manual_lowres.pdf?OpenElement)

18 Low Impact Development Center, *A Review of Low Impact Development Policies: Removing Institutional Barriers to Adoption* (2007) http://pepi.ucdavis.edu/mapinfo/pdf/CA_LID_Policy_Review_Final.pdf

destabilization and increased pollutant loadings of sediment, phosphorus and other pollutants due to bank and channel erosion. Numerous studies have documented the physical, chemical and biological impairments of receiving waters caused by increased volumes, rates, frequencies, and durations of stormwater discharges, and the critical importance of managing stormwater flows and volumes to protecting and restoring our nation's waters^{19,20}.

Traditional stormwater management is very heavily focused on extended detention approaches, *i.e.*, collecting water short-term (usually in a large basin), and discharging it to the receiving water over the period of one to several days, depending on the size of the storm. Extended detention practices are first and foremost designed to prevent downstream flooding and not to protect downstream channel stability and water quality. For decades, water quality protection has been a secondary goal, or one omitted entirely during the design of these facilities. Over time it has become apparent through research and monitoring that these traditional practices do not effectively protect the physical, chemical or biological integrity of receiving waters²¹. Furthermore, operation and maintenance of these systems to ensure they perform as designed requires a level of managerial and financial commitment that is often not provided, further diminishing the effectiveness of these practices from a water quality performance perspective. A number of researchers have documented that extended detention practices fail to maintain water quality, downstream habitat and biotic integrity of the receiving waters.^{22,23,24,25} As a result, today's Final Permit shifts the District's practices from extended detention approaches to water quality protection approaches based on retention of discharge volumes and reduced pollutant loadings.

(4.1.1 Standard for Stormwater Discharges from Development): The 2008 National Research Council Report (NRC Report) on urban stormwater confirmed that current stormwater control efforts are not fully adequate. Three of the NRC Report's findings on stormwater management approaches are particularly relevant:

19 Daren M Carlisle, David M Wolock, and Michael R Meador, *Alteration of streamflow magnitudes and potential ecological consequences: a multiregional assessment*, Front Ecol Environ, (2010)

20 National Research Council, *Urban Stormwater Management in the United States* (2009) National Academy of Sciences http://www.nap.edu/catalog.php?record_id=12465

21 EPA, *Protecting Water Quality from Urban Runoff* (2003) http://www.epa.gov/npdes/pubs/nps_urban-facts_final.pdf

22 C.R. MacRae, *Experience from Morphological Research on Canadian Streams: Is Control of the Two Year Frequency Runoff Event the Best Basis for Stream Channel Protection?* (1997) in *Effects of Watershed Development and Management on Aquatic Ecosystems*, ASCE

23 R. Horner, C. May, E. Livingston, D. Blaha, M. Scoggins, J. Tims & J. Maxted, *Structural and Nonstructural BMPs for Protecting Streams* (2002) Seventh Biennial Stormwater Research & Watershed Management Conference <http://www.p2pays.org/ref/41/40364.pdf>

24 D.B. Booth & C.R. Jackson, *Urbanization of Aquatic Systems – Degradation Thresholds, Stormwater Detention and the Limits of Mitigation* (1997) *Journal of the American Water Resources Association* 22(5) http://clear.uconn.edu/projects/TMDL/library/papers/BoothJackson_1997.pdf

25 E. Shaver, R. Horner, J. Skupien, C. May, and G. Ridley. *Fundamentals of Urban Runoff Management: Technical and Institutional Issues – 2nd Edition*, (2007) North American Lake Management Society, Madison, WI. [http://www.deq.state.ms.us/mdeq.nsf/0/A8E8B82B89DCDDCE862573530049EEEE0/\\$file/Fundamentals_full_manual_lowres.pdf?OpenElement](http://www.deq.state.ms.us/mdeq.nsf/0/A8E8B82B89DCDDCE862573530049EEEE0/$file/Fundamentals_full_manual_lowres.pdf?OpenElement)

- 1) Individual controls on stormwater discharges are inadequate as the sole solution to stormwater impacts in urban watersheds;
- 2) Stormwater control measures such as product substitution, better site design, downspout disconnection, conservation of natural areas, and watershed and land-use planning can dramatically reduce the volume of runoff and pollutant loadings from new development; and
- 3) Stormwater control measures that harvest, infiltrate, and evapotranspire stormwater are critical to reducing the volume and pollutant loading of storms.

The NRC Report points out the wisdom of managing stormwater flow not just for the hydrologic benefits as described above, but because it serves as an excellent proxy for pollutants, *i.e.*, by reducing the volume of stormwater discharged, the amount of pollutants typically entrained in stormwater will also be reduced. Reductions in the number of concentrated and erosive flow events will result in decreased mobilization and transport of sediments and other pollutants into receiving waters. The NRC Report also noted that it is generally easier and less expensive to measure flow than the concentration or load of individual pollutant constituents. For all of these reasons EPA has chosen to use flow volume as the management parameter to implement policies, strategies and approaches.

The objective of effective stormwater management is to replicate the pre-development hydrology to protect and preserve both the water resources onsite and those downstream by eliminating or reducing the amount of both water and pollutants that run off a site, enter the MS4, and ultimately are discharged into adjacent water bodies. The fundamental principle is to employ systems and practices that use or mimic natural processes to: 1) infiltrate and recharge, 2) evapotranspire, and/or 3) harvest and use precipitation near to where it falls to earth.

Retaining the volume of all storms up to and including the 95th percentile storm event is approximately analogous to maintaining or restoring the pre-development hydrology with respect to the volume, rate, and duration of the runoff for most sites. In the mid-Atlantic region the 95th percentile approach represents a volume that appears to reasonably represent the volume that is fully infiltrated in a natural condition and thus should be managed onsite to restore and maintain this pre-development hydrology for the duration, rate and volume of stormwater flows. This approach also employs and/or mimics natural treatment and flow attenuation methods, *i.e.*, soil and vegetation, that existed on the site before the construction of infrastructure (*e.g.*, building, roads, parking lots, driveways). The 95th percentile volume is not a “magic” number; there will be variation among sites based on site-specific factors when replicating predevelopment hydrologic conditions. However, this metric represents a good approximation of what is protective of water quality on a watershed scale, it can be easily and fairly incorporated into standards, and can be equitably applied on a jurisdictional basis.

In the Draft Permit EPA proposed two sets of performance standards to be implemented by the District: on-site retention of the 90th percentile volume, or 1.2” for all non-federal projects, and on-site retention of the 95th percentile volume, or 1.7” for all federal projects.

In determining ‘maximum extent practicable’ for discharges from development involving

federal facilities EPA considered several factors in the Draft Permit:

- 1) Energy Independence and Security Act (EISA) Section 438 and EPA Guidance²⁶: Entitled “Storm water runoff requirements for federal development projects,” EISA section 438 provides: “The sponsor of any development or redevelopment project involving a Federal facility with a footprint that exceeds 5,000 square feet shall use site planning, design, construction, and maintenance strategies for the property to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to the temperature, rate, volume, and duration of flow.”

Guidance for federal agencies to implement EISA section 438 has been in place since December 2009, and sets forth two optional approaches to meeting the statutory requirements: a performance objective to retain the volume from the 95th percentile storm on site for any federally sponsored new development or redevelopment project and a site-specific hydrologic analysis to determine the pre-development runoff conditions and to develop the site such that the post-development hydrology replicates those conditions “to the maximum extent technically feasible.”

- 2) Executive Orders:
 - a. Executive Order 13508 - Chesapeake Bay Protection and Restoration: Calling the Chesapeake Bay a national treasure, E.O. 13508, issued May 12, 2009, establishes a mandate for federal leadership, action and accountability in restoring the Bay. Among the provisions of the Executive Order, section 202(c) directs the strengthening of stormwater management practices at Federal facilities and on Federal lands within the Chesapeake Bay watershed. In addition, section 501 directs federal agencies to implement controls as expeditiously as practicable on their own properties. As required by section 502, EPA issued guidance for federal land management practices to protect and restore the Bay, which includes guidance for managing existing development, as well as redevelopment, new development. Thus federal agencies have an executive directive to be leaders in stormwater management in the District and throughout the Chesapeake Bay watershed.²⁷
 - b. Executive Order 13514 - Federal Leadership in Environmental, Energy, and Economic Performance E.O. 13514, issued Oct. 5, 2009, directs the federal government to “lead by example” and includes a requirement for federal agencies to implement EPA’s EISA Section 438 guidance (see Sections 2(d)(iv)²⁸ and 14).

²⁶ EPA, *Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act* (2009)

http://www.epa.gov/owow_keep/nps/lid/section438/

²⁷ EPA, *Guidance for Federal Land Management in the Chesapeake Bay Watershed*, Chapter 3. Urban and Suburban, (2010) 841-R-10-002 (http://www.epa.gov/owow_keep/NPS/chesbay502/pdf/chesbay_chap03.pdf)

²⁸ Sec. 2. Goals for Agencies. In implementing the policy set forth in Section 1 of this order, and preparing and implementing the Strategic Sustainability Performance Plan called for in Section 8 of this order, the head of each agency shall: . . . (d) improve water use efficiency and management by: . . . (iv) implementing and

- 3) **Water Quality:** These performance standards are appropriate as water quality-based effluent limitations in the Final Permit. In order to meet the necessary water quality requirements of the Clean Water Act, and to be consistent with the assumptions and requirements of the wasteload allocations for the Chesapeake Bay TMDL, EPA has determined that this performance standard is necessary. In fact, the District's final Phase I WIP acknowledges reasonable assurance demonstration for meeting its obligations to implement the Chesapeake Bay TMDL on an expectation that federal new development and redevelopment projects will achieve a 1.7" stormwater retention objective²⁹.

EPA concluded in the Draft Permit, and maintains in the Final Permit, that in this first permit in which a performance standard is being required, a retention standard of 1.2" represents the "maximum extent practicable" (MEP) for the District to implement at this time. In the District of Columbia area the 90th percentile event volume is estimated at 1.2 inches. This volume was calculated from 59 years (1948-2006) of rainfall data collected at Reagan National Airport using the methodology detailed in the Energy Independence and Security Act (EISA) Section 438 Guidance³⁰. EPA expects that the performance objective shall be accomplished largely by the use of practices that infiltrate, evapotranspire and/or harvest and use rainwater.

EPA's MEP determination included evaluating what has been demonstrated to be feasible in the mid-Atlantic region as well as in other parts of the country. Because on-site retention of the 90th percentile rainfall event volume and analogous approaches have been successfully implemented in other locations across the nation as requirements of stormwater permits, state regulations and local standards^{31,32,33,34,35,36,37,38,39} and under a wide variety of climates and

achieving the objectives identified in the stormwater management guidance referenced in Section 14 of this order. Sec. 14. Stormwater Guidance for Federal Facilities. Within 60 days of the date of this order, the Environmental Protection Agency, in coordination with other Federal agencies as appropriate, shall issue guidance on the implementation of Section 438 of the Energy Independence and Security Act of 2007 ([42 U.S.C. 17094](#)).

29 District of Columbia Department of Environment, *Chesapeake Bay TMDL Watershed Implementation Plan* (2010)

http://ddoe.dc.gov/ddoe/frames.asp?doc=/ddoe/lib/ddoe/tmdl/Final_District_of_Columbia_WIP_Bay_TMDL.pdf

30 EPA, *Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act* (2009)

<http://www.epa.gov/owow/keep/nps/lid/section438/>

31 EPA, *The Municipality of Anchorage and the Alaska Department of Transportation and Public Facilities Municipal Separate Storm Sewer System Permit*, NPDES No. AKS052558 (2010)

[http://yosemite.epa.gov/r10/water.nsf/NPDES+Permits/MS4+requirements+-+Region+10/\\$FILE/ATTCZX11/AKS052558%20FP.pdf](http://yosemite.epa.gov/r10/water.nsf/NPDES+Permits/MS4+requirements+-+Region+10/$FILE/ATTCZX11/AKS052558%20FP.pdf)

32 California Regional Water Quality Control Board Los Angeles Region, *Ventura County Municipal Separate Storm Sewer System Permit*, NPDES No. CAS004002 (2009)

http://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/ventura_ms4/Final_Ventura_County_MS4_Permit_Order_No.09-0057_01-13-2010.pdf

33 Montana Department of Environmental Quality, *General Permit for Stormwater Discharge Associated with Small Municipal Separate Storm Sewer System*, NPDES No. MTR040000 (2010)

<http://www.deq.mt.gov/wqinfo/mpdes/StormWater/ms4.mcp>

34 Tennessee Department of Environment and Conservation, *General Permit for Discharges from Small Municipal Separate Storm Sewer Systems*, NPDES No. TNS000000, (2010)

http://state.tn.us/environment/wpc/stormh2o/finals/tns000000_ms4_phase_ii_2010.pdf

conditions, EPA considers this performance standard to be proven and therefore ‘practicable’ at this point in time. EPA believes that application of this performance standard will result in a significant improvement to the *status quo* and that it will provide notable water quality benefits. This approach will also provide a sound foundation and framework for future management approaches, strategies, measures and practices as the program evolves over subsequent permit cycles. In this context, EPA notes that there may be a need to improve upon this standard in the future, and expects to evaluate implementation success, performance of practices and the overall program, and water quality in the receiving waters when determining whether or not to modify this requirement in a future permit cycle.

EPA received a number of comments on these proposed development performance standards. Many commenters supported this approach. A few were opposed, largely to the numbers rather than the retention framework. Only one federal agency, the Department of Defense, to whom the 95th percentile standard would apply, opposed this provision, on the basis that they should not be subject to the higher standard.

In response to comments EPA revised the Final Permit to require the District to implement a performance standard of on-site retention of 1.2” for all development projects, regardless of who owns or operates the development. EPA’s rationale for including a single performance standard for all development projects is based on the fact that this permit is issued to the District of Columbia and the MEP determination must be based on what is practicable for that permittee even though certain property owners discharging to the District’s MS4 may have the ability as well as the mandate to achieve more. EPA concludes that it would be not be inappropriate to include the 1.7” performance standard in a permit to a federal permittee. This permit, however, is being issued to a non-federal permittee.

Therefore today’s Final Permit includes a performance standard for stormwater discharges from development that disturbs an area of land greater than or equal to 5,000 square feet. The requirement must be in effect 18 months from today. The Permit requires the design, construction, and maintenance of stormwater management practices to retain rainfall onsite, and

35 West Virginia Department of Environmental Protection, General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems, NPDES WV0116025 (2009) <http://www.dep.wv.gov/WWE/Programs/stormwater/MS4/permits/Documents/WV%20MS4%202009%20General%20Permit.pdf>

36 North Carolina Department of Environment and Natural Resources, *General Permit to Construct Operate and Maintain Impervious Areas and BMPs Associated with a Residential Development Disturbing Less than 1 Acre*, State Permit No. SWG050000 (2008) http://portal.ncdenr.org/c/document_library/get_file?uuid=724171cc-c208-4f39-a68c-b4cd84022cd9&groupId=38364

37 State of Maryland, *Stormwater Management Act of 2007*, Environment Article 4 §201.1 and §203 <http://www.mde.state.md.us/programs/Water/StormwaterManagementProgram/Pages/Programs/WaterPrograms/SedimentandStormwater/swm2007.aspx>

38 City of Philadelphia, *Stormwater Regulations*, §600.0 Stormwater Management (2006) <http://www.phillyriverinfo.org/WICLibrary/StormwaterRegulations.pdf>

39 EPA, See Chapter 3, *Green Infrastructure Case Studies: Municipal Policies for Managing Stormwater with Green Infrastructure* (2010) http://www.epa.gov/owow/NPS/lid/gi_case_studies_2010.pdf

prevent the off-site discharge of the rainfall volume from all events less than or equal to the 90th percentile rainfall event.

The District's Phase I Watershed Implementation Plan (WIP) for the Chesapeake Bay TMDL⁴⁰ based its proposed nutrient and sediment reductions, and the associated reasonable assurance demonstration, on these performance standards, i.e., 1.2" for non-federal projects and 1.7" for federal projects. In establishing the Chesapeake Bay TMDL, EPA used the information in the Bay jurisdictions' final Phase I WIPs, including that of the District, where possible. Thus the wasteload allocations (WLAs) in the TMDL⁴¹ are based, in part, on the expectation that all development in the District will be subject to these standards.

EPA notes that all federal facilities still must comply with the EISA requirements. The District will track the performance of federal development projects subject to the District's stormwater regulations, and therefore document those achieving better than 1.2" onsite retention. However, the District cannot, nor should they be expected to, enforce the EISA requirements.

EPA dropped the option for determination of the predevelopment runoff conditions based on a full hydrologic and hydraulic analysis of the site. EISA guidance had provided this option to federal facilities and EPA did not want to provide an *a priori* limitation to federal projects in the Draft Permit, but rather provide the District with the flexibility to include it if they determined it to be administratively feasible. However, since the Final Permit no longer includes an additional requirement for federal facilities, this provision is no longer necessary to provide federal facilities options consistent with EISA. With respect to non-federal facilities, in the seventeen months since the Draft Permit was proposed the District has continued with the process of finalizing their stormwater regulations, and has determined that inclusion of this option is not necessary or reasonable, and EPA concurs.

Several commenters raised the issue of costs associated with implementation of the performance standard. EPA has responded by noting that there are many locations where this stormwater management framework has already been implemented (*see* footnote 22), and also where costs have been well documented to be competitive or instances where infrastructure costs were less expensive because of avoided costs, *e.g.*, reduced infrastructure, narrower roads and otherwise fewer impervious surfaces, reduced or eliminated curbs and gutters, no or fewer buried storm sewers. In addition, where cost-benefit analyses have been conducted, green infrastructure practices are even more cost effective because of the wide array of additional benefits⁴² that do not accrue when traditional stormwater management practices are used.^{43,44,45,46,47,48,49,50,51,52,53,54}

40 District of Columbia Department of Environment, *Chesapeake Bay TMDL Watershed Implementation Plan* (2010)

http://ddoe.dc.gov/ddoe/frames.asp?doc=/ddoe/lib/ddoe/tmdl/Final_District_of_Columbia_WIP_Bay_TMDL.pdf

41 EPA, *Chesapeake Bay Total Maximum Daily Load for Nitrogen, Phosphorus and Sediment* (2010)

<http://www.epa.gov/reg3wapd/tmdl/ChesapeakeBay/tmdlexec.html>

42 EPA, Managing Wet Weather with Green Infrastructure website, Benefits: (http://cfpub2.epa.gov/npdes/home.cfm?program_id=298)

43 LimnoTech, *Analysis of the Pollution Reduction Potential of DC Stormwater Standards* (2009)

44 EPA, *Reducing Stormwater Costs through Low Impact Development Strategies and Practices* (2007)

Several commenters took issue with the inclusion of any numeric performance standard for discharges from development. As discussed above EPA believes that stormwater discharge permits should include clear and enforceable standards, and where feasible, numeric limits are preferred. As discussed above, for the purpose of requiring the permittee to ensure adequate management of discharges from development, a numeric performance standard is a proven means of establishing a clear and enforceable requirement. EPA recognizes that there will be development projects that may not be able to meet the performance standard on site because of site conditions or site activities that preclude the use of extensive green infrastructure practices. Thus as proposed in the Draft Permit, the Final Permit requires the District to develop an alternative means of compliance for development projects under these circumstances (*see* discussion of Section 4.1.3 Off-Site Mitigation and/or Fee-in-Lieu for all Facilities).

In July 2010 EPA Region III issued *Urban Stormwater Approach for the Mid-Atlantic Region and the Chesapeake Bay Watershed*.⁵⁵ This document provides direction to all NPDES permitting authorities in the Region and establishes expectations for the next generation of MS4 permits. Based on many of the reasons already articulated in this Final Fact Sheet, EPA directed states to incorporate performance-based standards into permits and regulations with the objective of maintaining or restoring a pre-development hydrologic site condition for newly developed and redeveloped sites. In fact most states with authorized NPDES permit programs in the Chesapeake

<http://www.epa.gov/owow/NPS/lid/costs07/>

45 Report to Natural Resources Defense Council and Waterkeeper Alliance, *Economic Costs, Benefits and Achievability of Stormwater Regulations for Construction and Development Activities* (2008)

46 Meliora Environmental Design LLC, *Comparison of Environmental Site Design for Stormwater Management for Three Redevelopment Sites in Maryland* (2008)

47 City of Portland Environmental Services, *Cost-Benefit Evaluation of Ecoroofs* (2008)

<http://www.portlandonline.com/bes/index.cfm?a=261053&c=50818>

48 Natural Resources Defense Council, *Rooftops to Rivers, Green Strategies for Controlling Stormwater and Combined Sewer Overflows* (2006) <http://www.nrdc.org/water/pollution/rooftops/rooftops.pdf>

49 Riverkeeper, *Sustainable Raindrops* (2006) <http://www.riverkeeper.org/wp-content/uploads/2009/06/Sustainable-Raindrops-Report-1-8-08.pdf>

50 City of Philadelphia Water Department, *A Triple Bottom Line Assessment of Traditional and Green Infrastructure Options for Controlling CSO Events in Philadelphia's Watersheds* (2009)

http://www.epa.gov/npdes/pubs/gi_phil_bottomline.pdf

51 Richard R. Horner, *Investigation of the Feasibility and Benefits of Low-Impact Site Design Practices for Ventura County, and Initial Investigation of the Feasibility and Benefits of Low-Impact Site Development Practices for the San Francisco Bay Area, and Supplementary Investigation of the Feasibility and Benefits of Low-Impact Site Development Practices for the San Francisco Bay Area*, (2007)

http://docs.nrdc.org/water/files/wat_09081001b.pdf

52 J. Hathaway and W.F. Hunt. *Stormwater BMP Costs*. (2007)

www.bae.ncsu.edu/stormwater/PublicationFiles/DSWC.BMPcosts.2007.pdf.

53 Center for Neighborhood Technology and American Rivers, *The Value of Green Infrastructure: A Guide to Recognizing Its Economic, Environmental and Social Benefits* (2010) <http://www.cnt.org/repository/gi-values-guide.pdf>

54 J. Gunderson, R. Roseen, T. Janeski, J. Houle, M. Simpson. *Cost-Effective LID in Commercial and Residential Development* (2011) Stormwater <http://www.stormh2o.com/march-april-2011/costeffective-lid-development-1.aspx>

55 EPA, *Urban Stormwater Approach for the Mid-Atlantic Region and the Chesapeake Bay Watershed* (2010) http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/MS4GuideR3final07_29_10.pdf

Bay Watershed have incorporated numeric on-site retention standards into final or draft regulations or permits.

In addition, this provision is consistent with the 2008 Modified Letter of Agreement to the 2004 Permit⁵⁶ in which the District committed to promulgate stormwater regulations that implement “Low Impact Development”, *i.e.*, measures that infiltrate, evapotranspire and harvest stormwater.

(4.1.2 Code and Policy Consistency, Site Plan Review, Verification and Tracking):
In Region III’s *Urban Stormwater Approach for the Mid-Atlantic Region and the Chesapeake Bay Watershed*, EPA emphasized the importance of establishing accountability measures around performance measures. The best standards will not provide the necessary environmental outcomes if they are not properly implemented, and the only way to ensure proper implementation is to ensure that stormwater control measures are properly designed and installed.

Today’s Final Permit requires the District to ensure that all codes and policies are consistent with the standards in the Final Permit, and to establish and maintain adequate site plan review procedures, and a post-construction verification process (such as inspections or submittal of as-builts) to ensure that controls are properly installed.

Ensuring that local codes, ordinances and other policies are consistent with the requirements of the permit is critical element of success. A number local governments attempting to implement green infrastructure measures have found their own local policies to be one of the most significant barriers⁵⁷, *e.g.*, parking codes that require over-sized parking lots, plumbing codes that don’t allow rainwater harvesting for indoor uses, or street design standards that prohibit the use of porous/pervious surfaces. EPA has published a document, the *Water Quality Scorecard*, to assist local governments in understanding and identifying these local policy barriers and also provides options for eliminating them.⁵⁸ EPA is not requiring the District to use the *Scorecard* or any other specific method, but recommends a systematic assessment of local policies in the context of the requirements of the Final Permit in order to comply with the provisions of this Section.

EPA and others have long recognized the importance of site plan review in ensuring that development projects are designed according to standards and regulations, and a verification process following construction that projects were constructed as designed and approved.^{59,60,61,62}

⁵⁶ District Department of Environment, *Modification to the Letter of Agreement dated November 27, 2007 for the NPDES Municipal Separate Storm Sewer (MS4) Permit DC0000222* (2008)

<http://www.epa.gov/reg3wapd/npdes/pdf/DCMS4/Letter.PDF>

⁵⁷ National Research Council, *Urban Stormwater Management in the United States* (2009) National Academy of Sciences http://www.nap.edu/catalog.php?record_id=12465

⁵⁸ EPA, *Water Quality Scorecard, Incorporating Green Infrastructure Practices and the Municipal, Neighborhood and Site Scales* (2009) http://www.epa.gov/smartgrowth/pdf/2009_1208_wq_scorecard.pdf

⁵⁹ EPA, *Post-Construction Plan Review, Menu of BMPs*
http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=factsheet_results&view=specific&bmp=123

Most local governments, including the District, already have some form of site plan review and post-construction verification process for development projects. Today's Final Permit includes them as critical accountability elements of the District stormwater program.

In addition, today's Final Permit requires the District to track volume reductions from all projects. This is a critical element of determining whether wasteload allocations are being achieved.

One commenter noted that EPA had not imposed a clear compliance schedule for this requirement. The Final Permit includes a deadline of the end of the permit term for full compliance with this requirement, acknowledging that updating codes, ordinances and other policies may be a time-consuming process that typically requires consultation and support from elected officials, coordination amongst multiple departments and agencies, e.g., the Office of Planning, the Department of Transportation and the Department of the Environment, as well as public involvement.

(4.1.3 Off-Site Mitigation and/or Fee-in Lieu for all Facilities): Today's Final Permit requires the District to establish a program for Off-site Mitigation and/or Fee-In-Lieu within 18 months of the effective date of the Final Permit. The Final Permit provides the District flexibility to develop a program with either one of those elements or both. Specifically the Permit states:

The program shall include at a minimum:

- 1) Establishment of baseline requirements for on-site retention and for mitigation projects. On-site volume plus off-site volume (or fee-in-lieu equivalent or other relevant credits) must equal no less than the relevant volume in Section 4.1.1;
- 2) Specific criteria for determining when compliance with the baseline requirement for on-site retention cannot technically be met based on physical site constraints, or a rationale for why this is not necessary;
- 3) For a fee-in-lieu program, establishment of a system or process to assign monetary values at least equivalent to the cost of implementation of controls to account for the difference in the performance standard, and the alternative reduced value calculated; and
- 4) The necessary tracking and accounting systems to implement this section, including policies and mechanisms to ensure and verify that the required stormwater practices on the original site and appropriate required off-site practices stay in place and are adequately maintained.

60 Center for Watershed Protection, *Managing Stormwater in Your Community, A Guide for Building an Effective Post-Construction Program* (2008) http://www.cwp.org/documents/cat_view/76-stormwater-management-publications/90-managing-stormwater-in-your-community-a-guide-for-building-an-effective-post-construction-program.html

61 EPA, *MS4 Permit Improvement Guide* (2010) http://www.epa.gov/npdes/pubs/ms4permit_improvement_guide.pdf

62 National Research Council, *Urban Stormwater Management in the United States* (2009) National Academy of Sciences http://www.nap.edu/catalog.php?record_id=12465

This provision is included in today's Final Permit in acknowledgement that meeting the performance standard in 4.1.1 may be challenging in some situations. The NRC Report noted that an offset system is critical to situations when on-site stormwater control measures are not feasible.⁶³ In cases where a full complement of onsite controls is not feasible, offsite practices should be employed that result in net improvements to watershed function and water quality at the watershed scale. The *Urban Stormwater Approach for the Mid-Atlantic Region and the Chesapeake Bay Watershed* contemplates offsets in MS4 programs.⁶⁴ EPA has also articulated expectations in the Chesapeake Bay TMDL that it expects the Bay jurisdictions to account for growth via offset programs that are consistent with Section 10 and Appendix S of the Chesapeake Bay TMDL.⁶⁵

EPA received numerous comments on this provision. No commenter was opposed to an offset program *per se*, but there were various opinions on how it should function. Because there was so much general interest in how this program would be shaped, EPA is responding to these comments by requiring the program be subject to public notice followed by submittal to and review by EPA. EPA believes this provides all of those with an interest in this program the opportunity to provide meaningful input. EPA will also review the program to ensure that it has adequate tracking and enforceability components, and meets the water quality objectives of the Final Permit. It is EPA's expectation that these mechanisms will be described by the permittee in the proposed implementation scheme. EPA emphasizes that accountability measures (*e.g.*, inspections, maintenance, tracking) will be critical to ensure the success of the program, and therefore the District's plan will be closely scrutinized for those measures prior to implementation.

The Final Permit includes an option for the District to include incentives for other environmental objectives, *e.g.*, carbon sequestration, in the offset program. As noted, because of the wide array of opinions EPA feels that consideration of some of these other environmental objectives deserve a full vetting by the community. The District is not required to include any incentives or credits along these lines in the program. If it chooses to do so, anything implemented to achieve those other environmental objectives must be subject to the same level of site plan review, inspection, and operation and maintenance requirements as stormwater controls implemented in fulfillment of other permit requirements.

Finally, for the duration of this permit term, the Final Permit exempts District owned and operated transportation rights-of-way projects from the requirement to mitigate stormwater off-site or pay into a fee-in-lieu program for development projects where the on-site performance standard cannot be met. This decision was based on the District request for short-term relief while the District Department of Transportation develops new stormwater management design, construction, and operation and maintenance processes, protocols, requirements and

63 National Research Council, *Urban Stormwater Management in the United States* (2009) National Academy of Sciences http://www.nap.edu/catalog.php?record_id=12465

64 EPA, *Urban Stormwater Approach for the Mid-Atlantic Region and the Chesapeake Bay Watershed* (2010) http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/MS4GuideR3final07_29_10.pdf

65 EPA, *Chesapeake Bay Total Maximum Daily Load for Nitrogen, Phosphorus and Sediment* (2010) <http://www.epa.gov/reg3wapd/tmdl/ChesapeakeBay/tmdlexec.html>

specifications for transportation systems and public rights of way. EPA notes that this exemption does not apply to other District owned projects.

(4.1.4 Green Landscaping Incentives Program): Green infrastructure regulatory and incentive programs are becoming common across the country.^{66,67} Landscaping requirements that provide flexibility and a suite of options from which to select appropriate green infrastructure practices and systems, e.g. Seattle's Green Factor⁶⁸, have proven to be quite popular with developers, land owners and municipal officials.

The green landscaping provision is consistent with the 2008 Modified Letter of Agreement to the 2004 Permit⁶⁹ that articulated a long list of specific green infrastructure measures to be implemented, coupled with the commitment by the District to develop green infrastructure policies and incentives. Because these green landscaping provisions fill an important gap in the District's suite of green infrastructure-related policies, EPA specifically identified landscaping as an important area for development of incentives.

Other than general support EPA received little comment on this provision, thus the Final Permit has not been modified from the Draft Permit.

(4.1.5 Retrofit Program for Existing Discharges): Changes in land cover that occurred when urban and urbanizing areas were developed have changed both the hydrology and pollutant loadings to receiving waters and have led to water quality problems and stream degradation. In order to protect and restore receiving waters in and around the District stormwater volume and pollutant loadings from sites with existing development must be reduced. Due to historical development practices, most of these areas were developed without adequate stormwater pollutant reduction or water quality-related controls. To compensate for the lack of adequate stormwater discharge controls in these areas, EPA is requiring the District to include retrofit elements in the stormwater management program.^{70,71,72}

EPA has acknowledged the importance of including retrofit requirements in MS4 permits.^{73,74} The Chesapeake Bay TMDL allocations are founded on the expectation of

66 EPA, *Green Infrastructure Incentive Mechanisms*, Green Infrastructure Municipal Handbook Series, (2009) http://www.epa.gov/npdes/pubs/gi_munichandbook_incentives.pdf

67 EPA, *Green Infrastructure Case Studies: Municipal Policies for Managing Stormwater with Green Infrastructure* (2010) http://www.epa.gov/owow/NPS/lid/gi_case_studies_2010.pdf

68 City of Seattle, *Seattle Green Factor*, <http://www.seattle.gov/dpd/Permits/GreenFactor/Overview/>

69 District Department of Environment, *Modification to the Letter of Agreement dated November 27, 2007 for the NPDES Municipal Separate Storm Sewer (MS4) Permit DC0000222* (2008) <http://www.epa.gov/reg3wapd/npdes/pdf/DCMS4/Letter.PDF>

70 National Research Council, *Urban Stormwater Management in the United States* (2009) National Academy of Sciences http://www.nap.edu/catalog.php?record_id=12465

71 Schueler, Thomas. *Urban Subwatershed Restoration Manual No. 1: An Integrated Framework to Restore Small Urban Watersheds* (2005)

72 EPA, *Green Infrastructure Retrofit Policies*, Managing Wet Weather with Green Infrastructure Municipal Handbook Series (2008) http://www.epa.gov/npdes/pubs/gi_munichandbook_retrofits.pdf

73 EPA, *MS4 Permit Improvement Guide* (2010) EPA 833-R-10-001,

stormwater retrofits in the District (*see* Section 8 of the TMDL⁷⁵), based on actions outlined in the District's final Phase I WIP developed for the Chesapeake Bay TMDL.⁷⁶

EPA received quite a few comments on this set of requirements. Some commenters strongly approved of the retrofit provisions in the Draft Permit, while others expressed concerns.

Today's Final Permit requires the District to develop performance metrics for retrofits, using the performance standard in Section 4.1.1 as the starting point, *i.e.*, if projects can meet the environmental objectives specified in Part 4.1.1 they should. However, understanding the challenges associated with retrofitting some sites, the Final Permit allows that the performance metrics for retrofit projects may vary from the performance standard in 4.1.1, *e.g.*, different requirements may apply to differing sets of circumstances, site conditions or types of projects. EPA believes the most important first step in a robust retrofit program is to set stringent environmental objectives, thus the requirement to develop clear and specific performance standards. EPA fully expects the District to utilize this permit term to develop design, construction and operation and maintenance protocols to meet the requisite performance standards.

Several modifications were made to this provision:

- 1) Because there was so much interest in this provision EPA added a requirement for public notice.
- 2) Because there were so many opinions on how this program should function, EPA removed some of the criteria in the Final Permit to allow the community to shape the program. In exchange EPA included a requirement that the relevant performance metrics be submitted to EPA for review and approval.
- 3) The compliance schedule for development, public notice and submittal to EPA of performance metrics for a retrofit program has been extended from one year to 18 months at the request of the District. EPA believes the additional time will allow better coordination of the offset program with the District's stormwater regulations (also with an 18 month compliance schedule), and allow adequate time for a public notice process and an EPA review.

Also included in the permit is a requirement that the District must work with federal agencies to document federal commitments to retrofitting their properties. Consistent with Executive Order 13508 on the Chesapeake Bay, the federal strategies developed pursuant thereto, and in fulfillment of the Chesapeake Bay TMDL, federal agencies have obligations to

http://www.epa.gov/npdes/pubs/ms4permit_improvement_guide.pdf

⁷⁴ EPA, *Urban Stormwater Approach for the Mid-Atlantic Region and the Chesapeake Bay Watershed* (2010) http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/MS4GuideR3final07_29_10.pdf

⁷⁵ EPA, *Chesapeake Bay Total Maximum Daily Load for Nitrogen, Phosphorus and Sediment* (2010) <http://www.epa.gov/reg3wapd/tmdl/ChesapeakeBay/tmdlexec.html>

⁷⁶ District of Columbia Department of Environment, *Chesapeake Bay TMDL Watershed Implementation Plan* (2010)

http://ddoe.dc.gov/ddoe/frames.asp?doc=/ddoe/lib/ddoe/tmdl/Final_District_of_Columbia_WIP_Bay_TMDL.pdf

implement substantive stormwater controls. In order to accurately account for loads from federal lands that discharge through the District MS4 system, the District needs to be able to track the pollutant reductions resulting from federal actions. To do so the District will need to identify federal facilities and properties and work with federal agencies to identify retrofit opportunities on federal lands and properties and track progress in retrofitting these lands and properties.

In addition, the Final Permit requires the District to make pollutant load and volume reduction estimates for all retrofit projects for the nine pollutants in Table 4, and by each of the major District watersheds (Anacostia River, Rock Creek, Potomac River).

The Final Permit requires the District to implement retrofits to manage runoff from 18,000,000 square feet of impervious surfaces during the permit term. Of that total, 1,500,000 square feet must be in transportation rights-of-way. Although these initial drainage area objectives are not especially aggressive, EPA believes that a strong foundation for the retrofitting program must first be established. EPA can then set more aggressive drainage area objectives in subsequent permits. In its comments on the Draft Permit the District contended that the requirement in the Draft Permit for the retrofitting of 3,600,000 square feet of impervious surfaces in transportation rights-of-way was more than it could accomplish in a single permit term. The District suggested 1,500,000 square feet, almost 60% less than what was required in the Draft Permit would be achievable. In consideration of these comments, the total square footage of retrofitted impervious surfaces that must be in transportation rights-of-way is 1,500,000 square feet. EPA notes that the total square footage retrofit requirement is unchanged. EPA believes that this requirement will establish a strong foundation for the implementing a retrofitting program overall and in transportation rights-of-way, which can be followed in subsequent permits with more aggressive drainage area objectives. In addition, the Final Permit includes an additional provision that is intended to enhance the District's retrofit opportunities (*see* next paragraph).

The Final Permit establishes a requirement for the District to adopt and implement stormwater retention requirements for properties where less than 5,000 square feet of soil is being disturbed but where the buildings or structures have a footprint that is greater than or equal to 5,000 square feet and are undergoing substantial improvement. Substantial improvement, as consistent with District regulations at 12J DCMR § 202, is any repair, alteration, addition, or improvement of a building or structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the improvement or repair is started. Although this specific element was not included in the Draft Permit, it reflects the fact that the District has already considered this provision in their proposed stormwater regulations, and is consistent with the overall retrofit approach in the Draft Permit. Both the District and EPA believe this will promote retrofitting on smaller sites that would not otherwise be subject to the performance standard in the stormwater regulations.

This section of the Final Permit also requires the District to ensure that every major renovation/ rehabilitation project for District-owned properties within the inventory of Department of Real Estate Services (DRES) and Office of Public Education Facilities Modernization (OPEFM) includes on-site retention measures to manage stormwater. This

requirement is based in part on EPA's understanding that these two agencies have control over most District buildings and renovation projects in the District. This provision was in Section 4.2 Operation and Maintenance of Stormwater Capture Practices of the Draft Permit, and was moved to Section 4.1.5 of the Final Permit since it is a retrofit requirement rather than a maintenance requirement.

(4.1.6 Tree Canopy): Several studies have documented the capacity for planting additional trees in the District and quantified the benefits.^{77,78,79,80} The District commitments to the tree planting requirements of the Final Permit are documented in the 2008 Modified Letter of Agreement to the 2004 Permit,⁸¹ and the District's Chesapeake Bay TMDL WIP.⁸² The number was derived from the District Urban Tree Canopy Goal⁸³ of planting 216,300 trees over the next 25 years, an average of 8,600 trees per year District-wide. Adjusting this number for the MS4 area of the District, the Final Permit requires the District to develop a strategy to plant new trees at a rate of at least 4,150 annually.

There was some interest from commenters in providing input to the tree canopy strategy, thus the Final Permit includes a requirement for the District to public notice this strategy. Also, in response to several comments, EPA has clarified the annual number as a net increase in order to account for mortality.

(4.1.7 Green Roof Projects): Quite a few studies have documented the water quality benefits of green roofs.^{84,85,86} The Green Build-out Model, a project specifically carried out to

77 Casey Trees, *The Green Build-out Model: Quantifying the Stormwater Management Benefits of Trees and Green Roofs in Washington, DC* (2007) (<http://www.caseytrees.org/planning/greener-development/gbo/index.php>).

78 University of Vermont and the U.S. Forest Service, *A Report on Washington D.C.'s Existing and Potential Tree Canopy* (2009) <http://www.caseytrees.org/geographic/key-findings-data-resources/urban-tree-canopy-goals/documents/UnivofVermontUTCReport4-17-09.pdf>

79 Casey Trees, et al. *See several District tree inventories:* <http://www.caseytrees.org/geographic/tree-inventory/community/index.php>

80 Casey Trees, *The Green Build-out Model: Quantifying the Stormwater Management Benefits of Trees and Green Roofs in Washington, D.C.* (2007) http://www.caseytrees.org/planning/greener-development/gbo/documents/GBO_Model_Full_Report_20051607.pdf

81 District Department of Environment, *Modification to the Letter of Agreement dated November 27, 2007 for the NPDES Municipal Separate Storm Sewer (MS4) Permit DC0000222* (2008) <http://www.epa.gov/reg3wapd/npdes/pdf/DCMS4/Letter.PDF>

82 District of Columbia Department of Environment, *Chesapeake Bay TMDL Watershed Implementation Plan* (2010) http://ddoe.dc.gov/ddoe/frames.asp?doc=/ddoe/lib/ddoe/tmdl/Final_District_of_Columbia_WIP_Bay_TMDL.pdf

83 Casey Trees, *Urban Tree Canopy Goal website:* <http://www.caseytrees.org/geographic/key-findings-data-resources/urban-tree-canopy-goals/index.php>

84 EPA, *Green Roofs for Stormwater Runoff Control* (2009) <http://www.epa.gov/nrmrl/pubs/600r09026/600r09026.pdf>

85 E. Oberndorfer et al, *Green Roofs as Urban Ecosystems: Ecological Structures, Functions, and Services* (2007) *BioScience* 57(10):823-833 <http://www.bioone.org/doi/full/10.1641/B571005>

86 M. Hathaway, W.F. Hunt, G.D. Jennings, *A Field Study of Green Roof Hydrologic and Water Quality Performance* (2008) *Transactions of American Society of Agricultural and Biological Engineers*, Vol. 51(1): 37-44 <http://www.bae.ncsu.edu/people/faculty/jennings/Publications/ASABE%20Hathaway%20Hunt%20Jennings.pdf>

evaluate the potential in the District for using green roofs and other green infrastructure measures to reduce flows and pollutants from the District's wet weather systems, documented significant opportunities for green roof implementation.⁸⁷

The District commitments to green roof implementation are documented in the 2008 Modified Letter of Agreement to the 2004 Permit,⁸⁸ and the District Chesapeake Bay TMDL Watershed Implementation Plan.⁸⁹ The District is required to evaluate the feasibility of installing green roofs on District-owned buildings, and to install at least 350,000 square feet of green roof during the permit term.

(4.2 Operation and Maintenance of Retention Practices): Operation and maintenance, required pursuant to 40 C.F.R. 122.26(d)(2)(iv)(A)(1) and (3), is critical for the continued performance of stormwater control measures.^{90,91} EPA has consistently noted the importance of operation and maintenance in regulatory guidance.^{92,93,94} Today's Final Permit requires the District to ensure adequate maintenance of all stormwater control measures, both publicly and privately owned and operated.

The District has two years from the effective date of the Final Permit to develop and implement operation and maintenance protocols for all District owned and operated stormwater management practices. The District is also required to provide regular and ongoing training to all relevant contractors and employees.

The District is required to develop operation and maintenance mechanisms to ensure that stormwater practices are maintained and operated to meet the objectives of the program and that they continue to function over multiple permit cycles to provide the water quality benefits intended by design. Such mechanisms may include deed restrictions, ordinances and/or maintenance agreements to ensure that all non-District owned and operated stormwater control measures are adequately maintained. In addition the District must develop and/or refine

87 Casey Trees, *The Green Build-out Model: Quantifying the Stormwater Management Benefits of Trees and Green Roofs in Washington, D.C.* (2007) http://www.caseytrees.org/planning/greener-development/gbo/documents/GBO_Model_Full_Report_20051607.pdf

88 District Department of Environment, *Modification to the Letter of Agreement dated November 27, 2007 for the NPDES Municipal Separate Storm Sewer (MS4) Permit DC0000222* (2008) <http://www.epa.gov/reg3wapd/npdes/pdf/DCMS4/Letter.PDF>

89 District of Columbia Department of Environment, *Chesapeake Bay TMDL Watershed Implementation Plan* (2010) http://ddoe.dc.gov/ddoe/frames.asp?doc=/ddoe/lib/ddoe/tmdl/Final_District_of_Columbia_WIP_Bay_TMDL.pdf

90 National Research Council, *Urban Stormwater Management in the United States* (2009) National Academy of Sciences http://www.nap.edu/catalog.php?record_id=12465

91 EPA Website: Stormwater Control Operation and Maintenance. <http://www.epa.gov/owow/NPS/ordinance/stormwater.htm>

92 EPA, *MS4 Permit Improvement Guide* (2010) EPA 833-R-10-001, http://www.epa.gov/npdes/pubs/ms4permit_improvement_guide.pdf

93 EPA, *MS4 Program Evaluation Guidance* (2007) EPA-833-R-07-003, http://www.epa.gov/npdes/pubs/ms4guide_withappendixa.pdf

94 EPA, *Urban Stormwater Approach for the Mid-Atlantic Region and the Chesapeake Bay Watershed*, (2010) http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/MS4GuideR3final07_29_10.pdf

verification mechanisms, such as inspections, and an electronic inventory system to ensure the long-term integrity of stormwater controls in the District.

In addition the District is required to develop a Stormwater Management Guidebook and associated training within eighteen months of the effective date of the Final Permit. This requirement is based on commitments in the 2008 Modified Letter of Agreement to the 2004 Permit⁹⁵. Completion of the Guidebook has been delayed pending finalization of the District's revised stormwater regulations. However EPA expects Guidebook completion to parallel finalization of the District's revised stormwater regulations, which incorporate the standards and requirements of the Final Permit.

(4.3 Management of District Government Areas): Requirements in this section of the Final Permit largely continue provisions in the 2004 Permit. EPA received few comments on most elements of this section of the Draft Permit. The following revisions were made:

- 1) The District now must notify not only public health agencies within 24-hours in the event of a sanitary sewer overflow, but also ensure adequate public notification procedures within that same time period (Section 4.3.1 of the Final Permit). EPA emphasizes that this provision in no way authorizes sanitary sewer overflow discharges either directly or via the MS4. Those discharges are expressly prohibited.
- 2) Within 18 months of the effective date of the Final Permit, the District shall complete, public notice and submit to EPA for review and approval a plan for optimal catch basin inspections, cleaning and repairs. The District shall fully implement the plan upon EPA approval. This revision is based on comments that the catch basin maintenance provisions on the Draft Permit were vague and not within the context of a comprehensive plan (Section 4.3.5.1 of the Final Permit).
- 3) Section 3.2 of the Draft Permit required the District to update its outfall inventory. One commenter noted that the District's 2006 Outfall Survey had already essentially accomplished this, and that meanwhile many of these outfalls were in severe disrepair, thus contributing to increased sediment loading to receiving waters. EPA agrees this is a serious concern, and has thus modified the Final Permit to require the District to undertake the following: within 18 months of the effective date of the Final Permit, and consistent with the 2006 Outfall Survey, the District shall complete, public notice and submit to EPA for review and approval an outfall repair schedule to ensure that approximately 10% of all outfalls needing repair are repaired annually, with the overall objective of having all outfalls in good repair by 2022 (Section 4.3.5.3 of the Final Permit).
- 4) Consistent with the District's *Enhanced Street Sweeping and Fine Particle Removal Strategy*,⁹⁶ an additional element has been included in Table 3, Street Sweeping. The

⁹⁵ District Department of Environment, *Modification to the Letter of Agreement dated November 27, 2007 for the NPDES Municipal Separate Storm Sewer (MS4) Permit DC0000222* (2008)
<http://www.epa.gov/reg3wapd/npdes/pdf/DCMS4/Letter.PDF>

⁹⁶ District Department of the Environment, *Municipal Separate Storm Sewer System Program Annual Report* (2010)

table now documents that environmental hotspots in the Anacostia River Watershed will now be swept at least two times per month from March through October.

(4.6 Management of Construction Activities): Requirements in this Section of the Final Permit largely continue provisions in the 2004 Permit. Several commenters suggested that these provisions needed to be significantly improved, including specifying more stringent effluent limitations, in order to address the impairments attributable to sediment.

While permitting authorities have a fair amount of latitude to modify many elements of a permit based on public comments, inclusion of a *de novo* numeric effluent limitation, when neither the Draft Permit nor the Draft Fact Sheet suggested such an option would require further public notice. Therefore, this Final Permit does not include a numeric effluent limitation for sediment discharged in stormwater from active construction sites.

However, EPA agrees that construction activities cause serious water quality problems, and has revised this section to require more robust oversight of construction stormwater controls. A significant cause of water quality problems caused by construction activities is the failure of construction site operators to comply with existing regulations. Thus, EPA expects increased inspections and enforcement activity to result in improved compliance and therefore reduced sediment loads.⁹⁷ Therefore the Final Permit includes construction site inspection frequency requirements to ensure compliance with the District erosion and sediment requirements.

(4.8 Flood Control Projects): Requirements in this Section of the Final Permit largely continue provisions in the 2004 Permit. EPA received few comments on this section. The following revision was made: a start date of six months after the effective date of the Final Permit was added for the requirement to collect data on the percentage of impervious surface area located in flood plain boundaries for all proposed development.

(4.10 Total Maximum Daily Load (TMDL) Wasteload Allocation (WLA) Planning and Implementation): There are several TMDLs with wasteload allocations that either directly or indirectly affect the District's MS4 discharges. The following are those that EPA has determined to be relevant for purposes of implementation via the Final Permit:

1. TMDL for Biochemical Oxygen Demand (BOD) in the Upper and Lower Anacostia River (2001)
2. TMDL for Total Suspended Solids (TSS) in the Upper and Lower Anacostia River (2002)
3. TMDL for Fecal Coliform Bacteria in the Upper and Lower Anacostia River (2003)
4. TMDL for Organics and Metals in the Anacostia River and Tributaries (2003)
5. TMDL for Fecal Coliform Bacteria in Kingman Lake (2003)
6. TMDL for Total Suspended Solids, Oil and Grease and Biochemical Oxygen Demand in Kingman Lake (2003)

⁹⁷ EPA, *Office of Enforcement and Compliance Assurance Accomplishments Report* (2008)
<http://www.epa.gov/compliance/resources/reports/accomplishments/oeca/fy08accomplishment.pdf>

7. TMDL for Fecal Coliform Bacteria in Rock Creek (2004)
8. TMDL for Organics and Metals in the Tributaries to Rock Creek (2004)
9. TMDL for Fecal Coliform Bacteria in the Upper, Middle and Lower Potomac River and Tributaries (2004)
10. TMDL for Organics, Metals and Bacteria in Oxon Run (2004)
11. TMDL for Organics in the Tidal Basin and Washington Ship Channel (2004)
12. TMDL for Sediment/Total Suspended Solids for the Anacostia River Basin in Maryland and the District (2007) [pending resolution of court vacature, Anacostia Riverkeeper, Inc. v. Jackson, No. 09-cv-97 (RCL)]
13. TMDL for PCBs for Tidal Portions of the Potomac and Anacostia Rivers in the District of Columbia, Maryland and Virginia (2007)
14. TMDL for Nutrients/Biochemical Oxygen Demand for the Anacostia River Basin in Maryland and the District (2008)
15. TMDL for Trash for the Anacostia River Watershed, Montgomery and Prince George's Counties, Maryland and the District of Columbia (2010)
16. TMDL for Nitrogen, Phosphorus and Sediment for the Chesapeake Bay Watershed (2010)

On July 25, 2011, in connection with a challenge by the Anacostia Riverkeeper and other environmental organizations, the U.S. District Court for the District of Columbia vacated EPA's approval of a total maximum daily load (TMDL) for sediment in the Anacostia River. While the court ruled in EPA's favor on a number of issues of significant importance to the TMDL program and that the TMDL adequately would achieve the designated aquatic life use, the court held that EPA's decision record did not adequately support EPA's determination that the TMDL would lead to river conditions that would support the primary (swimming) and secondary (boating) contact recreation and aesthetic designated uses. Based on its holding regarding the recreational and aesthetic uses, the court vacated the TMDL, but stayed its vacatur for one year to give EPA sufficient time to address the court's concerns. This TMDL is included in the above list (#12), because EPA expects this vacatur to be resolved within the time frame for TMDL efforts outlined in this permit. However, District planning and implementation efforts on this TMDL are not required until such time as the legal challenge is resolved and the TMDL is established.

Most EPA developed TMDLs for the District, as well as all District developed and EPA approved TMDLs can be found at the following website:

http://www.epa.gov/reg3wapd/tmdl/dc_tmdl/index.htm.

The Chesapeake Bay TMDL for nitrogen, phosphorus and sediment is available at:

<http://www.epa.gov/reg3wapd/tmdl/ChesapeakeBay/tmdlexec.html>.

The District also has a number of TMDL-related documents on its website:

<http://ddoe.dc.gov/ddoe/cwp/view,a,1209,q,495456.asp>.

In addition, the tidal Anacostia River is listed as impaired for TSS and BOD, and the Upper Potomac River is listed as impaired for pH. TMDL establishment by EPA is pending for both.

As part of permit reissuance EPA has reviewed several existing TMDL implementation plans, including those for the Potomac River, Anacostia River and Rock Creek. EPA has identified the relevant implementation actions from those Plans and included them as requirements of the Final Permit, *e.g.*, green roofs, tree plantings. This approach provides more clarity for the District and the general public, and is also consistent with the obligation of NPDES permit writers to articulate enforceable provisions in permits to implement TMDL WLAs.

EPA took the same approach with the Anacostia River Watershed Trash TMDL⁹⁸ (Trash TMDL) (Part 4.10.1 of the Final Permit), which was finalized in September 2010. This TMDL was well-developed with quantifiable information about the sources and causes of impairment. The Trash TMDL assigned a specific WLA to MS4 discharges: removal of 103,188 pounds of trash annually. The Final Permit requires the District to attain this WLA as a specific single-year measure by the fifth year of this permit term. The Final Permit provision is based on the annual trash WLA for the District MS4. In the TMDL, annual WLAs were divided by 365 days to obtain daily WLAs. Given the fact that the daily and annual WLAs are congruent with each other, use of the annual WLA as the permit metric is consistent with the assumptions and requirements of the TMDL and is a more feasible measure for monitoring purposes.

Because the Anacostia River Watershed Trash TMDL provided a solid foundation for action, EPA determined the implementation requirements and included them in the Final Permit rather than require the District to develop a separate implementation plan. The Permit requires the District to determine a method for estimating trash reductions and submit that to EPA for review and approval within one year of the effective date of the Final Permit. In addition, the District must annually report the trash prevention/removal approaches utilized, and the overall total weight (in pounds) of trash captured for each type of approach.

On December 29, 2010, the U.S. Environmental Protection Agency established the Chesapeake Bay TMDL⁹⁹ to restore clean water in the Chesapeake Bay Watershed. The TMDL identifies the necessary reductions of nitrogen, phosphorus and sediment from Delaware, Maryland, New York, Pennsylvania, Virginia, West Virginia and the District of Columbia that, when attained, will allow the Bay to meet applicable water quality standards. EPA based the TMDL allocations, where possible, on information provided by the Bay jurisdictions in their final Phase I WIPs. The TMDL requires the Bay jurisdictions to have in place by 2017 the necessary controls to attain 60% of the reductions called for in the TMDL, and to have all controls in place by 2025. EPA has committed to hold jurisdictions accountable for results along the way, including ensuring that NPDES permits contain provisions and limits that are consistent with the assumptions and requirements of the relevant WLAs.

98 Maryland Department of the Environment and District of Columbia Department of Environment, *Total Maximum Daily Loads of Trash for the Anacostia River Watershed, Montgomery and Prince George's Counties, Maryland and the District of Columbia* (2010) <http://www.epa.gov/reg3wapd/pdf/AnacostiaTMDLPortfolio.pdf>

99 EPA, *Chesapeake Bay Total Maximum Daily Load for Nitrogen, Phosphorus and Sediment* (2010) <http://www.epa.gov/reg3wapd/tmdl/ChesapeakeBay/tmdlexec.html>

The District’s final Phase I Chesapeake Bay WIP proposed very aggressive targets for pollutant reductions in its MS4 program.

Pollutant of Concern	% Reductions in Urban Runoff Loads by 2025 from 2009 Baseline	Reductions in Urban Runoff Loads by 2025 from 2009 Baseline
Total Nitrogen	17	29,310 lbs/yr
Total Phosphorus	33	7,740 lbs/yr
Sediment	35	2,192 tons/yr

These numbers are from the District’s final input deck to the Chesapeake Bay Model in association with the final Phase I WIP.

The Final Permit requires a very robust set of measures, based on a determination that these measures are necessary to ultimately achieve the specified reductions. EPA took a similar approach with the Chesapeake Bay TMDL as it did with the aforementioned TMDLs, and incorporated specific implementation measures into the Final Permit. Although EPA did not finalize the Chesapeake Bay TMDL until December 2010, EPA had a reasonably clear understanding of what would be needed even prior to publishing the Draft Permit because of the significant amount of data, modeling output and other information available in advance of its finalization, as well as many months of ongoing discussions with the District about the elements of its final Phase I WIP.¹⁰⁰ Based on the final TMDL, EPA is assured that the Final Permit is consistent with the assumptions and requirements of the WLAs in the TMDL.

In partial fulfillment of attaining the Chesapeake Bay WLAs, the Final Permit contains: a new performance standard for development, a requirement for an offset program for development, numeric requirements for tree plantings and green roof installation, numeric requirements for retrofits, and a variety of other actions. The relevant sections of this Final Fact Sheet discuss those provisions more fully.

There will be two additional permit terms prior to 2025 during which the District will implement many additional and/or more robust measures to attain its Bay TMDL WLAs. Provisions, targets and numeric thresholds in this Final Permit are not necessarily the ones that will be included in subsequent permits. EPA believes, however, that the 2011 Final Permit sets the foundation for a number of actions and policies upon which those future actions will be based.

Section 4.10.2 of the Final Permit requires the District to implement and complete the proposed replacement/rehabilitation, inspection and enforcement, and public education aspects of the strategy for Hickey Run to satisfy the applicable oil and grease TMDL wasteload allocations. In addition, the District is required to install end-of-pipe management practices at four identified outfalls to address oil and grease and trash in Hickey Run no later than the end of this permit term. Implementation requirements to attain these WLAs were initiated during prior

¹⁰⁰ District of Columbia Department of Environment, *Chesapeake Bay TMDL Watershed Implementation Plan* (2010)
http://ddoe.dc.gov/ddoe/frames.asp?doc=/ddoe/lib/ddoe/tmdl/Final_District_of_Columbia_WIP_Bay_TMDL.pdf

permit terms. The requirements of today's Final Permit are intended to bring the District to the concluding stages of attaining the Hickey Run oil and grease and trash WLAs.

The 2003 District of Columbia TMDL for oil and grease in the Anacostia River noted that the waterbody was no longer impaired by oil and grease. In particular data from Hickey Run, which provided the basis for listing the Anacostia River as an impaired water body, had demonstrated consistent compliance with applicable water quality standards for oil and grease: for twenty-one samples taken in Hickey Run between January and December 2002, no values exceeded the 10mg/L standard, and only one sample exceeded a 5 mg/L detection limit value. The 2003 TMDL further concluded that on-going implementation activities, which included public education and automobile shop enforcement actions, caused a significant decrease in ambient pollutant concentrations.¹⁰¹ The Final Permit includes a provision for additional controls on oil and grease in Hickey Run should monitoring during this permit term indicate it is necessary. However, per the demonstration noted above, EPA believes it likely this may not be necessary.

One commenter indicated that the shift from an aggregate numeric effluent limit for four outfalls into Hickey Run in the 2004 permit to a management practice-based approach in the Draft Permit violated the Clean Water Act's prohibition against backsliding, section 402(o)(1) of the CWA, 33 U.S.C. § 1342(o)(1) (“[A] Permit may not be renewed, reissued, or modified ... subsequent to the original issuance of such Permit, to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous Permit”). In response, EPA notes that a non-numeric effluent limitation is not automatically less stringent than a numeric effluent limitation. A different (numeric or non-numeric) effluent limitation only violates the anti-backsliding prohibition if it can be fairly compared to the prior numeric limit and found to be less stringent than that requirement. *See e.g., Communities for a Better Environment v. State Water Resources Control Bd.*, 132 Cal. App. 4th 1313 (August 29, 2005) (finding that no backsliding had occurred where the effluent limit in existing permit was not “comparable” to WQBEL in previous permit). In this case EPA 1) notes that additional controls on oil and grease may not be needed (as explained above), and 2) has determined regardless that compliance with the performance standards in the Final Permit will result in improved water quality protections for the District MS4 receiving streams more effectively than did the previous numeric effluent limitations (see discussions in relevant sections).

Section 4.10.3 of today's Final Permit requires the District to develop a Consolidated TMDL Implementation Plan (Consolidated Plan) for all TMDL wasteload allocations assigned to District MS4 discharges. All applicable WLAs must be considered in this plan, though the TMDLs listed at the beginning of this Section form the basis for District action to meet this requirement. EPA has evaluated these TMDLs along with existing water quality data and has concluded that *E. coli*, total nitrogen, total phosphorus, total suspended solids, copper, lead, zinc and trash are critical pollutants of concern for District waters, and should be the focus of implementation measures as well as of a revised monitoring program (*see* Section 5.1 for a

¹⁰¹ District of Columbia, *Final Total Maximum Daily Load for Oil and Grease in the Anacostia River* (2003) http://www.epa.gov/reg3wapd/tmdl/dc_tmdl/AnacostiaRiver/AnacoatiaOilReport.pdf

discussion of the latter).

The rationale for a Consolidated Plan is to allow for more efficient implementation of control measures. In many cases TMDLs have been developed on a stream segment basis, which is not always the most logical framework for implementation of controls. In addition, the solutions for reducing many pollutants and/or improving water bodies will be the same stormwater control measures and/or policies, and it would be wasteful of resources and duplicative to have separate implementation plans under those circumstances.

The Final Permit requires the Consolidated Plan to include:

- 1) Specified schedules for attaining applicable wasteload allocations for each TMDL; such schedules must include numeric benchmarks that specify annual pollutant load reductions and the extent of control actions to achieve these numeric benchmarks.
- 2) Interim numeric milestones for TMDLs where final attainment of applicable wasteload allocations requires more than one permit cycle. These milestones shall originate with the third year of this permit term and every five years thereafter.
- 3) Demonstration using modeling of how each applicable WLA will be attained using the chosen controls, by the date for ultimate attainment.
- 4) The Consolidated TMDL Implementation Plan elements required in this section will become enforceable permit terms upon approval of such Plans, including the interim and final dates in this section for attainment of applicable WLAs.
- 5) Where data demonstrate that existing TMDLs are no longer appropriate or accurate, the Plan shall include recommended solutions, including, if appropriate, revising or withdrawing TMDLs.

Some of the applicable TMDLs developed within the District were based on limited or old data. In those cases the District may choose to reevaluate these waters and impairments to determine if revising or withdrawing the TMDL, or other action, would be appropriate.

The District has two years from the date of Final Permit issuance to develop, public notice and submit the Consolidated Plan to EPA for review and approval. EPA believes the required elements (1-5, above) will ensure clarity and enforceability, but also encourages interested parties to participate in the public process. EPA added this public notice requirement to the Final Permit because of the significant interest expressed by commenters on District TMDLs.

Section 4.10.4, Adjustments to TMDL Implementation Strategies, requires the District to make mid-course improvements to implementation measures and policies whenever data indicate insufficient progress towards attaining any relevant WLA. The District must adjust its management programs to compensate for the inadequate progress within 6 months, and document the modifications in the Consolidated TMDL Implementation Plan. The Plan modification shall include a reasonable assurance demonstration of the additional controls to achieve the necessary reductions, *i.e.*, quantitatively linking sources and causes to discharge

quality. In addition, annual reports must include a description of progress as evaluated against all implementation objectives, milestones and benchmarks, as relevant.

Finally, with respect to any new or revised TMDL that may be approved during the permit term, the Final Permit makes allowances for reopening the permit to address those WLAs (see Section 8.19 of the Final Permit: Reopener Clause for Permits), if necessary. EPA believes that reopening the permit will not typically be necessary since the Final Permit requires the District to update the Consolidated Plan within six months for any TMDL approved during the permit term with wasteload allocations assigned to District MS4 discharges, and also to include a description of revisions in the next regularly scheduled annual report.

(4.11 Additional Pollutant Sources): Requirements in this Section of the Final Permit largely continue provisions in the 2004 Permit. EPA notes that the provisions of this section were mostly included in Section 3 of the Draft Permit.

5. MONITORING AND ASSESSMENT OF CONTROLS

(5.1 Revised Monitoring Program): As included in the Draft Permit, the monitoring requirements for the District's stormwater program have been significantly updated from the last permit cycle. This revision reflects the fact that the District has already performed broad monitoring of a variety of parameters over the last two permit cycles. The Phase I stormwater regulations require representative sampling for the purpose of discharge characterization in the first permit term, or initial years of the program (40 C.F.R. §122.26(d)(1)(iv)(E)). The District now has a decade worth of this type of data, and it is timely to update the monitoring program to more effectively evaluate the effectiveness of the program, and to more effectively and efficiently use the District's funds for this purpose. As noted in the National Research Council's report *Urban Stormwater Management in the United States*¹⁰², the quality of stormwater from urbanized areas has been well-characterized. Continuing the standard end-of-pipe monitoring typical of most MS4 programs has produced data of limited usefulness because of a variety of shortcomings (as detailed in the report). The NRC Report strongly recommends that MS4 programs modify their evaluation metrics and methods to include biological and physical monitoring, better evaluations of the performance/effectiveness of controls and overall programs, and an increased emphasis on watershed scale analyses to ascertain what is actually going on in receiving waters. The report also emphasizes the link between study design and the ability to interpret data, *e.g.*, having enough samples to ensure that conclusions are statistically significant.

Consistent with these goals, the Final Permit requires the District to develop a Revised Monitoring Program to meet the following objectives:

- 1) Make wet weather loading estimates of the parameters in Table 4 from the MS4 to receiving waters. Number of samples, sampling frequencies and number and locations of

¹⁰² National Research Council, *Urban Stormwater Management in the United States* (2009) National Academy of Sciences http://www.nap.edu/catalog.php?record_id=12465

- sampling stations must be adequate to ensure data are statistically significant and interpretable.
- 2) Evaluate the health of the receiving waters, to include biological and physical indicators such as macroinvertebrates and geomorphologic factors. Number of samples, frequencies and locations must be adequate to ensure data are statistically significant and interpretable for long-term trend purposes (not variation among individual years or seasons).
 - 3) Any additional necessary monitoring for purposes of source identification and wasteload allocation tracking. This strategy must align with the Consolidated TMDL Implementation Plan required in Part 4.10.3 For all pollutants in Table 4 monitoring must be adequate to determine if relevant WLAs are being attained within specified timeframes in order to make modifications to relevant management programs, as necessary.

The Final Permit requires the District to public notice the Revised Monitoring Program, and to submit it to EPA for review and approval within two years of the effective date of the Final Permit.

EPA also significantly refined the list of required pollutant analytes/parameters for which monitoring is required from over 120 to 9:

(Table 4 from the Final Permit)
Monitoring Parameters

Parameter
<i>E. coli</i>
Total nitrogen
Total phosphorus
Total Suspended Solids
Cadmium
Copper
Lead
Zinc
Trash

These parameters are those for which relevant stormwater wasteload allocations exist, or (in the case of cadmium) where monitoring data indicate that the pollutant is occurring in discharges at concentrations and frequencies to consider it a pollutant of concern. End-of-pipe analytical monitoring is an expensive undertaking, and EPA feels strongly that the District's water quality-related evaluations will be much more robust and actionable with an enhanced focus on true pollutants of concern, along with the elimination of analytes for which monitoring routinely shows non-detect concentrations, and/or those to which notable water quality problems have not been linked.

One modification has been made to this list for the Final Permit from the Draft Permit.

The Draft Permit required evaluation of Trash reductions in the relevant sections for the Anacostia River Watershed Trash TMDL (4.10.1), but failed to include it in Table 4 (Table 3 of the Draft Permit). EPA has added trash as a monitoring parameter to this table to correct that oversight.

(5.2 Interim Monitoring): During the interim period from the effective date of the Final Permit until EPA approves the Revised Monitoring Program, the Final Permit requires the District to largely continue the monitoring program established and updated under the 2000 and 2004 permits, except the monitoring program is only required for the list of monitoring parameters in Table 4, which has been reduced to the nine parameters as discussed above.

EPA received several comments and questions on the interim monitoring requirements. Individual responses are included in the Responsiveness Summary published with the Final Permit and this Final Fact Sheet. EPA chose to not modify the interim monitoring provisions for the Final Permit because: 1) they are largely an extension of the same requirements and methods already approved and established under prior permits, which will ensure that data collected during the interim monitoring period are comparable to data collected during the past decade, thus providing “apples to apples” comparisons in data interpretation; and 2) EPA believes that the District’s monitoring-related resources are more effectively spent developing a robust revised program, rather than revising the interim program.

(5.4 Area and/or Source Identification Program): The Final Permit provides that “[t]he permittee shall continue to implement a program to identify, investigate, and address areas and/or sources within its jurisdiction that may be contributing excessive levels of pollutants to the MS4 and receiving waters, including but not limited to those pollutants identified in Table 4 herein.” This is identical in substance to section 5.5 in the Draft Permit and essentially continues the requirements from the 2004 MS4 Permit. EPA received a comment that this provision has been inadequate to identify sources contributing pollutants to MS4 discharges. EPA recognizes that this provision is general, but believes that the District’s ongoing practices are sufficient during the interim monitoring period. EPA notes that the Final Permit requires the Revised Monitoring Program to include any additional necessary monitoring for purposes of source identification and wasteload allocation tracking. The public will have a chance to comment on the proposed objectives and methods in Plan, and EPA will review and approve this Plan. Therefore there will be several opportunities to ensure that the District has robust methods for identify additional pollutant inputs to District MS4 discharges.

(5.7 Reporting of Monitoring Results): In response to several comments, and because of the potential availability of electronic reporting in the future, EPA made several modifications to this Section of the Final Permit. When available the District may submit monitoring data through NetDMR, a national tool for regulated Clean Water Act permittees to submit discharge monitoring reports (DMRs) electronically via a secure Internet application to EPA. *See* <http://www.epa.gov/netdmr/>. However, if this system is not available to the National Marine Fisheries Service, then the District must continue to submit hard copies. The Final Permit eliminates the requirement for the District to submit monitoring reports to itself. This section

clarifies (consistent with Section 6.2) that all monitoring results from a given year be summarized in the following annual report.

6. REPORTING REQUIREMENTS

Permit reporting is required pursuant to 40 C.F.R. § 122.41(l). EPA has made a number of minor edits to this section primarily for the purposes of: maintaining consistency with other Sections of the Final Permit (as those provisions necessitated changes in reporting, the Final Fact Sheet discusses those changes in association with the relevant Section); eliminating redundancy; and to provide clarification.

(6.2 Annual Reporting): Consistent with comments from a number of commenters regarding public access to documents, today's Final Permit requires the District to post each Annual Report on its website at the same time the Report is submitted to EPA.

The separate 'Reporting on Funding' in the Draft Permit has been eliminated in the Final Permit because it was largely redundant with other reporting requirements, and because it was beyond the scope of what is needed from the District. The Final Permit requires annual reporting on projected costs and budget for the coming year as well as expenditures and budget for the prior year, including (i) an overview of the District's financial resources and budget, (ii) overall indebtedness and assets, (iii) sources for funds for stormwater programs, and (iv) a demonstration of adequate fiscal capacity to meet the permit requirements. However, EPA has concluded that additional detail would be superfluous. In addition, beyond a demonstration of basic budget considerations as outlined in the Final Permit, how the District chooses to allocate resources to comply with the permit is an internal decision.

EPA has also included a provision for an Annual Report Meeting in this permit in order to improve communication between the District and the Agency. This meeting will provide an opportunity for EPA to obtain more in-depth knowledge of the District's program, and should also enhance feed-back on the program. The permit requires the District to convene the first Annual Report Meeting within 12 months of issuance of the permit. If both parties agree that this first meeting was successful, the Annual Report meeting shall be extended for the duration of the permit term.

7. STORMWATER MODEL

The Stormwater Model and associated Geographical Information System are tools used by the District to help track and evaluate certain components of the water quality program. The Final Permit requires the use and maintenance of this system as a component of the District's Stormwater Management Program. There were no modifications to this Section between the Draft Permit and the Final Permit.

8. STANDARD PERMIT CONDITIONS FOR NPDES PERMITS

The provisions in Part 8 are requirements generally applicable to all NPDES permits, pursuant to 40 C.F.R. § 122.41, as well as other applicable conditions pursuant to § 122.49 and specific statutory or regulatory provisions as noted in the permit. No changes were made to this section of the permit.

9. PERMIT DEFINITIONS

Most changes to this section from the Draft Permit consist of minor clarifications. In addition, several terms were eliminated from this section because they do not appear elsewhere in the Final Permit: ‘goal’, ‘internal sampling station’, ‘significant spills’, and ‘significant materials’. The definition of ‘MS4 Permit Area’ was removed because it is already defined in Part 1.1.

A definition of “development” was added to clarify that development is “the undertaking of any activity that disturbs a surface area greater than or equal to 5,000 square feet.” The definition further clarifies that the relevant performance standard for development applies to projects that commence after 18 months from the effective date of the Final Permit or as soon as the District’s stormwater regulations go into effect, whichever is sooner.

The definition of ‘green roof’ was modified to allow for the fact that some types of ecoroofs may be constructed without vegetation or soil media.

The definition of “retrofit” was modified to focus on environmental outcomes, *i.e.*, reductions in discharge volumes and pollutant loads and improvements in water quality, rather than implementation of conveyance measures.

The definition of “predevelopment hydrology” was enhanced to clarify that the phrase refers to a “stable, natural hydrologic site condition that protects or restores to the degree relevant for that site, stable hydrology in the receiving water, which will not necessarily be the hydrologic regime of that receiving water prior to any human disturbance in the watershed.” This definition is consistent with several seminal publications on the topic including *Urban Stormwater Management in the United States*¹⁰³ and references therein, *Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act*¹⁰⁴, and *Guidance for Federal Land Management in the Chesapeake Bay Watershed*¹⁰⁵, issued in fulfillment of Part 502 of E.O. 13508.

103 National Research Council, *Urban Stormwater Management in the United States* (2009) National Academy of Sciences http://www.nap.edu/catalog.php?record_id=12465

104 EPA, *Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act* (2009) http://www.epa.gov/owow_keep/nps/lid/section438/

105 EPA, *Guidance for Federal Land Management in the Chesapeake Bay Watershed*, Chapter 3. Urban

RELATIONSHIP TO NON-POINT SOURCE PROGRAM:

It should be noted that the measures required by the Permit are separate from those projects identified in the District's EPA-approved Non-Point Source Management Plan as being funded wholly or partially by funds pursuant to Section 319(h) of the Clean Water Act. See Section 3 of Permit ("These Permit requirements do not prohibit the use of 319(h) funds for other related activities that go beyond the requirements of this Permit, nor do they prohibit other sources of funding and/or other programs where legal or contractual requirements preclude direct use for stormwater permitting activities.").

ADMINISTRATIVE RECORD:

Copies of the documents that comprise the administrative record for the Permit are available to the public for review at the Martin Luther King, Jr. Public Library, which is located at 901 G Street, N.W. in Washington, D.C. An electronic copy of the proposed and final Permits and proposed and Final Fact Sheets are also available on the EPA Region III website, http://www.epa.gov/reg3wapd/npdes/draft_permits.html. For additional information, please contact Ms. Kaitlyn Bendik, Mail Code 3WP41, NPDES Permits Branch, Office of Permits and Enforcement, EPA Region III, United States Environmental Protection Agency, 1650 Arch Street, Philadelphia, Pennsylvania 19103-2029.

ATTACHMENT 5



Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

NPDES General Permit No. NMR04A000

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, as amended, (33 U.S.C. 1251 et. seq; the "Act"), except as provided in Part I.A.5 of this permit, operators of municipal separate storm sewer systems located in the area specified in Part I.A.1 are authorized to discharge pollutants to waters of the United States in accordance with the conditions and requirements set forth herein.

Only operators of municipal separate storm sewer systems in the general permit area who submit a Notice of Intent and a storm water management program document in accordance with Part I.A.6 of this permit are authorized to discharge storm water under this general permit.


This is a renewal NPDES permit issued for these portions of the small municipal separate storm sewer systems covered under the NPDES permit No NMR040000 and NMR040001 and the large municipal separate storm sewer systems covered under the NPDES permit No NMS000101.

This permit is issued on and shall become effective on the date of publication in the Federal Register. DEC 22 2014


This permit and the authorization to discharge shall expire at, midnight, December 19, 2019.

Signed by

Prepared by



William K. Honker, P.E.
Director
Water Quality Protection Division



Nelly Smith
Environmental Engineer
NPDES Permits and TMDLs Branch

MIDDLE RIO GRANDE WATERSHED BASED MUNICIPAL SEPARATE STORM SEWER
SYSTEM PERMIT

Table of Contents

Cover Page	Page
Part I INDIVIDUAL PERMIT CONDITIONS	
A. Discharges Authorized Under This General Permit.....	6 of Part I
1. Permit Area.....	6 of Part I
2. Potentially Eligible MS4s.....	6 of Part I
3. Eligibility.....	6 of Part I
4. Authorized Non-Stormwater Discharges.....	7 of Part I
5. Limitations on Coverage.....	7 of Part I
6. Authorization under This General Permit.....	8 of Part I
a. Obtaining Permit Coverage.....	8 of Part I
b. Terminating Coverage.....	9 of Part I
B. Notice of Intent Requirements.....	9 of Part I
1. Deadlines for Notification.....	9 of Part I
a. Designations.....	9 of Part I
b. New Operators.....	10 of Part I
c. Submitting a Late NOI.....	10 of Part I
d. End of Administrative Continued Coverage under Previous Permit.....	10 of Part I
2. Contents of Notice of Intent.....	11 of Part I
3. Where to Submit.....	12 of Part I
4. Permittees with Cooperative Elements in their SWMP.....	12 of Part I
C. Special Conditions.....	12 of Part I
1. Compliance with Water Quality Standards.....	12 of Part I
2. Discharges to Impaired Waters with and without Approved TMDLs.....	15 of Part I
3. Endangered Species Act (ESA) Requirements.....	20 of Part I
a. Dissolved Oxygen Strategy in the Receiving Waters of the Rio Grande.....	20 of Part I
b. Sediment Pollutant Load Reduction Strategy (Applicable to all permittees).....	22 of Part I
D. Stormwater Management Program (SWMP).....	23 of Part I
1. General Requirements.....	23 of Part I
2. Legal Authority.....	23 of Part I
3. Shared Responsibility and Cooperative Programs.....	24 of Part I
4. Measurable Goals.....	24 of Part I
5. Control Measures.....	25 of Part I
a. Construction Site Stormwater Runoff Control.....	25 of Part I
b. Post-Construction Stormwater Management in New Development and	

Redevelopment.....	28 of Part I
c. Pollution Prevention/Good Housekeeping for Municipal/Permittee Operations..	35 of Part I
d. Industrial and High Risk Runoff.....	37 of Part I
e. Illicit Discharges and Improper Disposal.....	39 of Part I
f. Control of Floatables Discharges.....	43 of Part I
g. Public Education and Outreach on Stormwater Impacts.....	44 of Part I
h. Public Involvement and Participation.....	47 of Part I
6. Stormwater Management Review and Modification.....	49 of Part I
a. Program Review.....	49 of Part I
b. Program Modification.....	50 of Part I
c. Program Modifications Required by EPA.....	50 of Part I
d. Transfer of Ownership, Operational Authority, or Responsibility for SWMP Implementation.....	50 of Part I
7. Retention of Program Records.....	51 of Part I
8. Qualifying State, Tribal or Local Program.....	51 of Part I
PART II NUMERIC DISCHARGE LIMITATIONS.....	1 of Part II
Reserved	
PART III MONITORING, ASSESSMENT, AND REPORTING REQUIREMENTS.....	1 of Part III
A. Monitoring and Assessment.....	1 of Part III
1. Wet Weather Monitoring.....	1 of Part III
2. Dry Weather Monitoring.....	3 of Part III
3. Floatable Monitoring.....	4 of Part III
4. Industrial and High Risk Runoff Monitoring.....	4 of Part III
5. Additional Sample Type, Collection and Analysis.....	6 of Part III
B. Annual Report.....	7 of Part III
1. SWMP(s) Status of Implementation.....	7 of Part III
2. SWMP Revisions.....	7 of Part III
3. Performance Assessment.....	7 of Part III
4. Annual Expenditures.....	7 of Part III
5. Annual Report Responsibilities for Cooperative Programs.....	7 of Part III
6. Public Review and Comment.....	8 of Part III
7. Signature on Certification of Annual Reports.....	8 of Part III
C. Certification and Signature of Reports.....	8 of Part III
D. Reporting: Where and When to Submit.....	8 of Part III

PART IV	STANDARD PERMIT CONDITIONS.....	1 of Part IV
A.	Duty to Comply.....	1 of Part IV
B.	Penalties for Violations of Permit Conditions.....	1 of Part IV
1.	Criminal Penalties.....	1 of Part IV
2.	Civil Penalties.....	1 of Part IV
3.	Administrative Penalties.....	1 of Part IV
C.	Duty to Reapply.....	2 of Part IV
D.	Need to Halt or Reduce Activity not a Defense.....	2 of Part IV
E.	Duty to Mitigate.....	2 of Part IV
F.	Duty to Provide Information.....	2 of Part IV
G.	Other Information.....	2 of Part IV
H.	Signatory Requirements.....	2 of Part IV
I.	Penalties for Falsification of Monitoring Systems.....	3 of Part IV
J.	Oil and Hazardous Substance Liability.....	3 of Part IV
K.	Property Rights.....	3 of Part IV
L.	Severability.....	3 of Part IV
M.	Requiring a Separate Permit.....	3 of Part IV
N.	State/Environmental Laws.....	3 of Part IV
O.	Proper Operation and Maintenance.....	4 of Part IV
P.	Monitoring and Records.....	4 of Part IV
Q.	Monitoring Methods.....	4 of Part IV
R.	Inspection and Entry.....	4 of Part IV
S.	Permit Actions.....	5 of Part IV
T.	Additional Monitoring by the Permittee(s).....	5 of Part IV
U.	Archaeological and Historic Sites.....	5 of Part IV
V.	Continuation of the Expired General Permit.....	6 of Part IV
W.	Permit Transfers.....	7 of Part IV
X.	Anticipated Noncompliance.....	7 of Part IV
Y.	Procedures for Modification or Revocation.....	7 of Part IV
PART V	PERMIT MODIFICATION.....	1 of Part V
A.	Modification of the Permit.....	1 of Part V
B.	Modification of the SWMP(s).....	1 of Part V
C.	Changes in Representative Monitoring Sites.....	1 of Part V
PART VI	SCHEDULES FOR IMPLEMENTATION AND COMPLIANCE.....	1 of Part VI
A.	Implementation and Augmentation of the SWMP(s).....	1 of Part VI

B. Compliance with Effluent Limitations..... 1 of Part VI
C. Reporting Compliance with Schedules..... 1 of Part VI
D. Modification of the SWMP(s)..... 1 of Part VI

PART VII DEFINITIONS..... 1 of Part VII

PART VIII PERMIT CONDITIONS APPLICABLE TO SPECIFIC AREAS OR INDIAN COUNTY LANDS
Reserved..... 1 of Part VIII

APPENDICES

- Appendix A: Middle Rio Grande Watershed Jurisdictions and Potential Permittees
- Appendix B: Total Maximum Daily Loads (TMDLs)
- Appendix C: Historic Properties Eligibility Procedures
- Appendix D: Suggested Initial Phase Sampling Location Concepts – Wet Weather Monitoring
- Appendix E: Providing Comments or Requesting a Public Hearing on an MS4 Operator’s NOI
- Appendix F: Minimum Quantifications Levels (MQL’s)
- Appendix G: Oxygen Saturation and Dissolved Oxygen Concentrations North Diversion Channel Area

PART I. INDIVIDUAL PERMIT CONDITIONS

A. DISCHARGES AUTHORIZED UNDER THIS PERMIT

1. **Permit Area.** This permit is available for MS4 operators within the Middle Rio Grande Sub-Watersheds described in Appendix A. This permit may authorize stormwater discharges to waters of the United States from MS4s within the Middle Rio Grande Watershed provided the MS4:

- a. Is located fully or partially within the corporate boundary of the City of Albuquerque;
- b. Is located fully or partially within the Albuquerque urbanized area as determined by the 2000 and 2010 Decennial Census. Maps of Census 2010 urbanized areas are available at: <http://water.epa.gov/polwaste/npdes/stormwater/Urbanized-Area-Maps-for-NPDES-MS4-Phase-II-Stormwater-Permits.cfm>;
- c. Is designated as a regulated MS4 pursuant to 40 CFR 122.32; or
- d. This permit may also authorize an operator of a MS4 covered by this permit for discharges from areas of a regulated small MS4 located outside an Urbanized Areas or areas designated by the Director provided the permittee complies with all permit conditions in all areas covered under the permit.

2. **Potentially Eligible MS4s.** MS4s located within the following jurisdictions and other areas, including any designated by the Director, are potentially eligible for authorization under this permit:

- City of Albuquerque
- AMAFCA (Albuquerque Metropolitan Arroyo Flood Control Authority)
- UNM (University of New Mexico)
- NMDOT (New Mexico Department of Transportation District 3)
- Bernalillo County
- Sandoval County
- Village of Corrales
- City of Rio Rancho
- Los Ranchos de Albuquerque
- KAFB (Kirtland Air Force Base)
- Town of Bernalillo
- EXPO (State Fairgrounds/Expo NM)
- SSCAFCA (Southern Sandoval County Arroyo Flood Control Authority)
- ESCAFCA (Eastern Sandoval County Arroyo Flood Control Authority)
- Sandia Laboratories, Department of Energy (DOE)
- Pueblo of Sandia
- Pueblo of Isleta
- Pueblo of Santa Ana

3. **Eligibility.** To be eligible for this permit, the operator of the MS4 must provide:

- a. **Public Participation:** Prior submitting the Notice of Intent (NOI), the operator of the MS4 must follow the local notice and comment to procedures at Part I.D.5.h.(i).
- b. **National Historic Preservation Act (NHPA) Eligibility Provisions**

In order to be eligible for coverage under this permit, the applicant must be in compliance with the National Historic Preservation Act. Discharges may be authorized under this permit only if:

- (i) Criterion A: storm water discharges, allowable non-storm water discharges, and discharge-related activities do not affect a property that is listed or is eligible for listing on the National Register of Historic Places as maintained by the Secretary of the Interior; or
- (ii) Criterion B: the applicant has obtained and is in compliance with a written agreement with the State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO) (or equivalent tribal authority) that outlines all measures the MS4 operator will undertake to mitigate or prevent adverse effect to the historic property.

Appendix C of this permit provides procedures and references to assist with determining permit eligibility concerning this provision. You must document and incorporate the results of your eligibility determination in your SWMP.

The permittee shall also comply with the requirements in Part IV.U.

4. **Authorized Non-Stormwater Discharges.** The following non-stormwater discharges need not be prohibited unless determined by the permittees, U.S. Environmental Protection Agency (EPA), or New Mexico Environment Department (NMED) to be significant contributors of pollutants to the municipal separate storm sewer system (MS4). Any such discharge that is identified as significant contributor pollutants to the MS4, or as causing or contributing to a water quality standards violation, must be addressed as an illicit discharge under the illicit discharge and improper disposal practices established pursuant to Part I.D.5.e of this permit. For all of the discharges listed below, not treated as illicit discharges, the permittee must document the reason these discharges are not expected to be significant contributors of pollutants to the MS4. This documentation may be based on either the nature of the discharge or any pollution prevention/treatment requirements placed on such discharges by the permittee.

- potable water sources, including routine water line flushing;
- lawn, landscape, and other irrigation waters provided all pesticides, herbicides and fertilizers have been applied in accordance with approved manufacturing labeling and any applicable permits for discharges associated with pesticide, herbicide and fertilizer application;
- diverted stream flows;
- rising ground waters;
- uncontaminated groundwater infiltration (as defined at 40 CFR §35.2005 (20));
- uncontaminated pumped groundwater;
- foundation and footing drains;
- air conditioning or compressor condensate;
- springs;
- water from crawl space pumps;
- individual residential car washing;
- flows from riparian habitats and wetlands;
- dechlorinated swimming pool discharges;
- street wash waters that do not contain detergents and where no un-remediated spills or leaks of toxic or hazardous materials have occurred;
- discharges or flows from fire fighting activities (does not include discharges from fire fighting training activities); and,
- other similar occasional incidental non-stormwater discharges (e.g. non-commercial or charity car washes, etc.)

5. **Limitations of Coverage.** This permit does not authorize:

- a. **Non-Storm Water:** Discharges that are mixed with sources of non-storm water unless such non-storm water discharges are:
 - (i) In compliance with a separate NPDES permit; or
 - (ii) Exempt from permitting under the NPDES program; or

- (iii) Determined not to be a substantial contributor of pollutants to waters of the United States. See Part I.A.4.
- b. Industrial Storm Water: Storm water discharges associated with industrial activity as defined in 40 CFR §122.26(b)(14)(i)-(ix) and (xi).
- c. Construction Storm Water: Storm water discharges associated with construction activity as defined in 40 CFR §122.26(b)(14)(x) or 40 CFR §122.26(b)(15).
- d. Currently Permitted Discharges: Storm water discharges currently covered under another NPDES permit.
- e. Discharges Compromising Water Quality: Discharges that EPA, prior to authorization under this permit, determines will cause, have the reasonable potential to cause, or contribute to an excursion above any applicable water quality standard. Where such a determination is made prior to authorization, EPA may notify you that an individual permit application is necessary in accordance with Part IV.M. However, EPA may authorize your coverage under this permit after you have included appropriate controls and implementation procedures in your SWMP designed to bring your discharge into compliance with water quality standards.
- f. Discharges Inconsistent with a TMDL: You are not eligible for coverage under this permit for discharges of pollutants of concern to waters for which there is an applicable total maximum daily load (TMDL) established or approved by EPA unless you incorporate into your SWMP measures or controls that are consistent with the assumptions and requirements of such TMDL. To be eligible for coverage under this general permit, you must incorporate documentation into your SWMP supporting a determination of permit eligibility with regard to waters that have an EPA-established or approved TMDL. If a wasteload allocation has been established that would apply to your discharge, you must comply with the requirements established in Part I.C.2.b.(i). Where an EPA-approved or established TMDL has not specified a wasteload allocation applicable to municipal storm water discharges, but has not specifically excluded these discharges, adherence to a SWMP that meets the requirements in Part I.C.2.b.(ii) of this general permit will be presumed to be consistent with the requirements of the TMDL. If the EPA-approved or established TMDL specifically precludes such discharges, the operator is not eligible for coverage under this general permit.

6. Authorization Under This General Permit

- a. Obtaining Permit Coverage.
 - (i) An MS4 operator seeking authorization to discharge under this general permit must submit electronically a complete notice of intent (NOI) to the e-mail address provided in Part I.B.3 (see suggested EPA R6 MS4 NOI format located in EPA website at <http://epa.gov/region6/water/npdes/sw/ms4/index.htm>), in accordance with the deadlines in Part I.B.1 of this permit. The NOI must include the information and attachments required by Parts I.B.2, Part I.A.3, Part I.D.5.h.(i), and I.A.5.f of this permit. By submitting a signed NOI, the applicant certifies that all eligibility criteria for permit coverage have been met. If EPA notifies a discharger (either directly, by public notice, or by making information available on the Internet) of other NOI options that become available at a later date, such as electronic submission of forms or information, the MS4 operator may take advantage of those options to satisfy the NOI submittal requirements.
 - (ii) If an operator changes or a new operator is added after an NOI has been submitted, the operator must submit a new or revised NOI to EPA.
 - (iii) An MS4 operator who submits a complete NOI and meets the eligibility requirements in Part I of this permit is authorized to discharge storm water from the MS4 under the terms and conditions of this general permit only upon written notification by the Director. After review of the NOI and any public comments on the NOI, EPA may condition permit coverage on correcting any deficiencies or on including a schedule to respond to any public comments. (See also Parts I.A.3 and Part I.D.5.h.(i).)

- (iv) If EPA notifies the MS4 operator of deficiencies or inadequacies in any portion of the NOI (including the SWMP), the MS4 operator must correct the deficient or inadequate portions and submit a written statement to EPA certifying that appropriate changes have been made. The certification must be submitted within the time-frame specified by EPA and must specify how the NOI has been amended to address the identified concerns.
- (v) The NOI must be signed and certified in accordance with Parts IV.H.1 and 4. Signature for the NOI, which effectively takes the place of an individual permit application, may not be delegated to a lower level under Part IV.H.2

b. Terminating Coverage.

- (i) A permittee may terminate coverage under this general permit by submitting a notice of termination (NOT). Authorization to discharge terminates at midnight on the day the NOT is post-marked for delivery to EPA.
- (ii) A permittee must submit an NOT to EPA within 30 days after the permittee:
 - (a) Ceases discharging storm water from the MS4,
 - (b) Ceases operations at the MS4, or
 - (c) Transfers ownership of or responsibility for the facility to another operator.
- (iii) The NOT will consist of a letter to EPA and must include the following information:
 - (a) Name, mailing address, and location of the MS4 for which the notification is submitted;
 - (b) The name, address and telephone number of the operator addressed by the NOT;
 - (c) The NPDES permit number for the MS4;
 - (d) An indication of whether another operator has assumed responsibility for the MS4, the discharger has ceased operations at the MS4, or the storm water discharges have been eliminated; and
 - (e) The following certification:

I certify under penalty of law that all storm water discharges from the identified MS4 that are authorized by an NPDES general permit have been eliminated, or that I am no longer the operator of the MS4, or that I have ceased operations at the MS4. I understand that by submitting this Notice of Termination I am no longer authorized to discharge storm water under this general permit, and that discharging pollutants in storm water to waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by an NPDES permit. I also understand that the submission of this Notice of Termination does not release an operator from liability for any violations of this permit or the Clean Water Act.
 - (f) NOTs, signed in accordance with Part IV.H.1 of this permit, must be sent to the e-mail address in Part I.B.3. Electronic submittal of the NOT required in the permit using a compatible Integrated Compliance Information System (ICIS) format would be allowed if available.

B. NOTICE OF INTENT REQUIREMENTS

1. Deadlines for Notification.

- a. Designations: Small MS4s automatically designated under 40 CFR 122.32(a)(1), large MS4s located within the corporate boundary of the COA including the COA and former co-permittees under the NPDES permit No

NMS000101, and MS4s designated under 40 CFR 122.26(a)(1)(v), 40 CFR 122.26(a)(9)(i)(C) or (D), or 40 CFR 122.32(a)(2) are required to submit individual NOIs by the dates listed in Table 1. Any MS4 designated as needing a permit after issuance of this permit will be given an individualized deadline for NOI submittal by the Director at the time of designation.

In lieu of creating duplicate program elements for each individual permittee, implementation of the SWMP, as required in Part I.D, may be achieved through participation with other permittees, public agencies, or private entities in cooperative efforts to satisfy the requirements of Part D. For these programs with cooperative elements, the permittee may submit individual NOIs as established in Table 1. See also “Permittees with Cooperative Elements in their SWMP” under Part.I.B.4 and “Shared Responsibilities and Cooperative Programs” under Part I.D.3.

Table 1 Deadlines to Submit NOI

Permittee Class Type	NOI Deadlines
Class A: MS4s within the Cooperate Boundary of the COA including former co-permittees under the NPDES permit No NMS000101	90 days from effective date of the permit or 180 days from effective date of the permit if participating in cooperative programs for one or more program elements.
Class B: MS4s designated under 40 CFR 122.32(a)(1). Based on 2000 Decennial Census Map	90 days from effective date of the permit or 180 days from effective date of the permit if participating in cooperative programs for one or more program elements.
Class C: MS4s designated under 40 CFR 122.26(a)(1)(v), 40 CFR 122.26(a)(9)(i)(C) or (D), or 40 CFR 122.32(a)(2) or MS4s newly designated under 122.32(a)(1) based on 2010 Decennial Census Map	180 days from effective date of the permit or notice of designation, unless the notice of designation grants a later date or; 180 days from effective date of the permit if participating in cooperative programs for one or more program elements.
Class D: MS4s within Indian Country Lands designed under 40 CFR 122.26(a)(1)(v), 122.26(a)(9)(i)(C) or (D), 122.32(a)(1), or 122.32(a)(2)	180 days from effective date of the permit or notice of designation, unless the notice of designation grants a later date or; 180 days from effective date of the permit if participating in cooperative programs for one or more program elements.

See Appendix A for list of potential permittees in the Middle Rio Grande Watershed

- b. New Operators. For new operators of all or a part of an already permitted MS4 (due to change on operator or expansion of the MS4) who will take over implementation of the existing SWMP covering those areas, the NOI must be submitted 30 days prior to taking over operational control of the MS4. Existing permittees who are expanding coverage of their MS4 area (e.g., city annexes part of unincorporated county MS4) are not required to submit a new NOI, but must comply with Part I.D.6.d.
- c. Submitting a Late NOI. MS4s not able to meet the NOI deadline in Table I and Part I.B.1.b due to delays in determining eligibility should notify EPA of the circumstance and progress to date at the address in Part I.B.3 and then proceed with a late NOI. MS4 operators are not prohibited from submitting an NOI after the dates provided in Table I and Part I.B.1.b. If a late NOI is submitted, the authorization is only for discharges that occur after permit coverage is effective. The permitting authority reserves the right to take appropriate enforcement actions for any unpermitted discharges.
- d. End of Administrative Continued Coverage under Previous Permit. Administrative continuance is triggered by a timely reapplication. Discharges submitting an NOI for coverage under this permit are considered to have met

the timely reapplication requirement if NOI is submitted by the deadlines included in Table 1 of Part I.B.1. For MS4s previously covered under either NMS000101 or NMR040000, continued coverage under those permits ends: a) the day after the applicable deadline for submittal of an NOI if a complete NOI has not been submitted or b) upon notice of authorization under this permit if a complete and timely NOI is submitted.

2. **Contents of Notice of Intent.** An MS4 operator eligible for coverage under this general permit must submit an NOI to discharge under this general permit. The NOI will consist of a letter to EPA containing the following information (see suggested EPA R6 MS4 NOI Format located in EPA website at <http://www.epa.gov/region6/water/npdes/sw/ms4/index.htm>) and must be signed in accordance with Part IV.H of this permit:
- a. The legal name of the MS4 operator and the name of the urbanized area and core municipality (or Indian reservation/pueblo) in which the operator's MS4 is located;
 - b. The full facility mailing address and telephone number;
 - c. The name and phone number of the person or persons responsible for overall coordination of the SWMP;
 - d. An attached location map showing the boundaries of the MS4 under the applicant's jurisdiction. The map must include streets or other demarcations so that the exact boundaries can be located;
 - e. The area of land served by the applicant's MS4 (in square miles);
 - f. The latitude and longitude of the approximate center of the MS4;
 - g. The name(s) of the waters of the United States that receive discharges from the system.
 - h. If the applicant is participating in a cooperative program element or is relying on another entity to satisfy one or more permit obligations (see Part I.D.3), identify the entity(ies) and the element(s) the entity(ies) will be implementing;
 - i. Information on each of the storm water minimum control measures in Part I.D.5 of this permit and how the SWMP will reduce pollutants in discharges to the Maximum Extent Practicable. For each minimum control measure, include the following:
 - (i) Description of the best management practices (BMPs) that will be implemented;
 - (ii) Measurable goals for each BMP; and
 - (iii) Time frames (i.e., month and year) for implementing each BMP;
 - j. Based on the requirements of Part I.A.3.b describe how the eligibility criteria for historic properties have been met;
 - k. Indicate whether or not the MS4 discharges to a receiving water for which EPA has approved or developed a TMDL. If so, describe how the eligibility requirements of Part I.A.5.f and Part I.C.2 have been met.
- Note: If an individual permittee or a group of permittees seeks an alternative sub-measurable goal for TMDL controls under Part I.C.2.b.(i).(c).B, the permittee or a group of permittees must submit a preliminary proposal with the NOI. This proposal shall include, but is not limited to, the elements included in Appendix B under Section B.2.
- l. Signature and certification by an appropriate official (see Part IV.H). The NOI must include the certification statement from Part IV.H.4.

3. **Where to Submit.** The MS4 operator must submit the signed NOI to EPA via e-mail at R6_MS4Permits@epa.gov (note: there is an underscore between R6 and MS4) and NMED to the address provided in Part III.D.4. See also Part III.D.4 to determine if a copy must be provided to a Tribal agency.

The following MS4 operators: AMAFCA, Sandoval County, Village of Corrales, City of Rio Rancho, Town of Bernalillo, SSCAFCA, and ESCAFCA must submit the signed NOI to the Pueblo of Sandia to the address provided in Part III.D.4.

Note: See suggested EPA R6 MS4 NOI Format located in EPA website at <http://www.epa.gov/region6/water/npdes/sw/ms4/index.htm>. A complete copy of the signed NOI should be maintained on site. Electronic submittal of the documents required in the permit using a compatible Integrated Compliance Information System (ICIS) format would be allowed if available.

4. **Permittees with Cooperative Elements in their SWMP.** Any MS4 that meets the requirements of Part I.A of this general permit may choose to partner with one or more other regulated MS4 to develop and implement a SWMP or SWMP element. The partnering MS4s must submit separate NOIs and have their own SWMP, which may incorporate jointly developed program elements. If responsibilities are being shared as provided in Part I.D.3 of this permit, the SWMP must describe which permittees are responsible for implementing which aspects of each of the minimum measures. All MS4 permittees are subject to the provisions in Part I.D.6.

Each individual MS4 in a joint agreement implementing a permit condition will be independently assessed for compliance with the terms of the joint agreement. Compliance with that individual MS4s obligations under the joint agreement will be deemed compliance with that permit condition. Should one or more individual MS4s fail to comply with the joint agreement, causing the joint agreement program to fail to meet the requirements of the permit, the obligation of all parties to the joint agreement is to develop within 30 days and implement within 90 days an alternative program to satisfy the terms of the permit.

C. SPECIAL CONDITIONS

1. **Compliance with Water Quality Standards.** Pursuant to Clean Water Act §402(p)(3)(B)(iii) and 40 CFR §122.44(d)(1), this permit includes provisions to ensure that discharges from the permittee's MS4 do not cause or contribute to exceedances of applicable surface water quality standards, in addition to requirements to control discharges to the maximum extent practicable (MEP) set forth in Part I.D. Permittees shall address stormwater management through development of the SWMP that shall include the following elements and specific requirements included in Part VI.
 - a. Permittee's discharges shall not cause or contribute to an exceedance of surface water quality standards (including numeric and narrative water quality criteria) applicable to the receiving waters. In determining whether the SWMP is effective in meeting this requirement or if enhancements to the plan are needed, the permittee shall consider available monitoring data, visual assessment, and site inspection reports.
 - b. Applicable surface water quality standards for discharges from the permittees' MS4 are those that are approved by EPA and any other subsequent modifications approved by EPA upon the effective date of this permit found at New Mexico Administrative Code §20.6.4. Discharges from various portions of the MS4 also flow downstream into waters with Pueblo of Isleta and Pueblo of Sandia Water Quality Standards;
 - c. The permittee shall notify EPA and the Pueblo of Isleta in writing as soon as practical but not later than thirty (30) calendar days following each Pueblo of Isleta water quality standard exceedance at an in-stream sampling location. In the event that EPA determines that a discharge from the MS4 causes or contributes to an exceedance of applicable surface water quality standards and notifies the permittee of such an exceedance, the permittee shall, within sixty (60) days of notification, submit to EPA, NMED, Pueblo of Isleta (upon request) and Pueblo of Sandia (upon request), a report that describes controls that are currently being implemented and additional controls that will be implemented to prevent pollutants sufficient to ensure that the discharge will no longer cause or contribute to an exceedance of applicable surface water quality standards. The permittee shall implement such additional controls upon notification by EPA and shall incorporate such measures into their SWMP as described in Part I.D of this permit. NMED or the affected Tribe may provide information

documenting exceedances of applicable water quality standards caused or contributed to by the discharges authorized by this permit to EPA Region 6 and request EPA take action under this paragraph.

- d. Phase I Dissolved Oxygen Program (Applicable only to the COA and AMAFCA as a continuation of program in 2012 NMS000101 individual permit): Within one year from effective date of the permit, the permittees shall revise the May 1, 2012 Strategy to continue taking measures to address concerns regarding discharges to the Rio Grande by implementing controls to eliminate conditions that cause or contribute to exceedances of applicable dissolved oxygen water quality standards in waters of the United States. The permittees shall:
- (i) Continue identifying structural elements, natural or man-made topographical and geographical formations, MS4 operations activities, or oxygen demanding pollutants contributing to reduced dissolved oxygen in the receiving waters of the Rio Grande. Both dry and wet weather discharges shall be addressed. Assessment may be made using available data or collecting additional data;
 - (ii) Continue implementing controls, and updating/revising as necessary, to eliminate structural elements or the discharge of pollutants at levels that cause or contribute to exceedances of applicable water quality standards for dissolved oxygen in waters of the United States;
 - (iii) To verify the remedial action in the North Diversion Channel Embayment, the COA and AMAFCA shall continue sampling for DO and temperature until the data indicate the discharge does not exceed applicable dissolved oxygen water quality standards in waters of the United States; and
 - (iv) Submit a revised strategy to FWS for consultation and EPA for approval from a year of effective date of the permit and progress reports with the subsequent Annual Reports. Progress reports to include:
 - (a) Summary of data.
 - (b) Activities undertaken to identify MS4 discharge contribution to exceedances of applicable dissolved oxygen water quality standards in waters of the United States. Including summary of findings of the assessment required in Part I.C.1.d.(i).
 - (c) Conclusions drawn, including support for any determinations.
 - (d) Activities undertaken to eliminate MS4 discharge contribution to exceedances of applicable dissolved oxygen water quality standards in waters of the United States.
 - (e) Account of stakeholder involvement.
- e. PCBs (Applicable only to the COA and AMAFCA as a continuation of program in 2012 NMS000101 individual permit and Bernalillo County): The permittee shall address concerns regarding PCBs in channel drainage areas specified in Part I.C.1.e.(vi) by developing or continue updating/revising and implementing a strategy to identify and eliminate controllable sources of PCBs that cause or contribute to exceedances of applicable water quality standards in waters of the United States. Bernalillo County shall submit the proposed PCB strategy to EPA within two (2) years from the effective date of the permit and submit a progress report with the third and with subsequent Annual Reports. COA and AMAFCA shall submit a progress report with the first and with the subsequent Annual Reports. The progress reports shall include:
- (i) Summary of data.
 - (ii) Findings regarding controllable sources of PCBs in the channel drainages area specified in Part I.C.1.e.(vi) that cause or contribute to exceedances of applicable water quality standards in waters of the United States via the discharge of municipal stormwater.
 - (iii) Conclusions drawn, including supporting information for any determinations.

(iv) Activities undertaken to eliminate controllable sources of PCBs in the drainage areas specified in Part I.C.1.e.(vi) that cause or contribute to exceedances of applicable water quality standards in waters of the United States via the discharge of municipal stormwater including proposed activities that extend beyond the five (5) year permit term.

(v) Account of stakeholder involvement in the process.

(vi) Channel Drainage Areas: The PCB strategy required in Part I.C.1.e is only applicable to:

COA and AMAFCA Channel Drainage Areas:

- San Jose Drain
- North Diversion Channel

Bernalillo County Channel Drainage Areas:

- Adobe Acres Drain
- Alameda Outfall Channel
- Paseo del Norte Outfall Channel
- Sanchez Farm Drainage Area

A cooperative strategy to address PCBs in the COA, AMAFCA and Bernalillo County's drainage areas may be developed between Bernalillo County, AMAFCA, and the COA. If a cooperative strategy is developed, the cooperative strategy shall be submitted to EPA within three (3) years from the effective date of the permit and submit a progress report with the fourth and with subsequent Annual Reports,

Note: COA and AMAFCA must continue implementing the existing PCB strategy until a new Cooperative PCB Strategy is submitted to EPA.

- f. Temperature (Applicable only to the COA and AMAFCA as a continuation of program in 2012 NMS000101 individual permit): The permittees must continue assessing the potential effect of stormwater discharges in the Rio Grande by collecting and evaluating additional data. If the data indicates there is a potential of stormwater discharges contributing to exceedances of applicable temperature water quality standards in waters of the United States, within thirty (30) days such as findings, the permittees must develop and implement a strategy to eliminate conditions that cause or contribute to these exceedances. The strategy must include:
- (i) Identify structural controls, post construction design standards, or pollutants contributing to raised temperatures in the receiving waters of the Rio Grande. Both dry and wet weather discharges shall be addressed. Assessment may be made using available data or collecting additional data;
 - (ii) Develop and implement controls to eliminate structural controls, post construction design standards, or the discharge of pollutants at levels that cause or contribute to exceedances of applicable water quality standards for temperature in waters of the United States; and
 - (iii) Provide a progress report with the first and with subsequent Annual Reports. The progress reports shall include:
 - (a) Summary of data.
 - (b) Activities undertaken to identify MS4 discharge contribution to exceedances of applicable temperature water quality standards in waters of the United States.
 - (c) Conclusions drawn, including supporting information for any determinations.
 - (d) Activities undertaken to reduce MS4 discharge contribution to exceedances of applicable temperature water quality standards in waters of the United States.
 - (e) Accounting of stakeholder involvement.

2. **Discharges to Impaired Waters with and without approved TMDLs.** Impaired waters are those that have been identified pursuant to Section 303(d) of the Clean Water Act as not meeting applicable surface water quality standards. This may include both waters with EPA-approved Total Maximum Daily Loads (TMDLs) and those for which a TMDL has not yet been approved. For the purposes of this permit, the conditions for discharges to impaired waters also extend to controlling pollutants in MS4 discharges to tributaries to the listed impaired waters in the Middle Rio Grande watershed boundary identified in Appendix A.
 - a. Discharges of pollutant(s) of concern to impaired water bodies for which there is an EPA approved total maximum daily load (TMDL) are not eligible for this general permit unless they are consistent with the approved TMDL. A water body is considered impaired for the purposes of this permit if it has been identified, pursuant to the latest EPA approved CWA §303(d) list, as not meeting New Mexico Surface Water Quality Standards.
 - b. The permittee shall control the discharges of pollutant(s) of concern to impaired waters and waters with approved TMDLs as provided in sections (i) and (ii) below, and shall assess the success in controlling those pollutants.
 - (i) **Discharges to Water Quality Impaired Water Bodies with an Approved TMDL**

If the permittee discharges to an impaired water body with an approved TMDL (see Appendix B), where stormwater has the potential to cause or contribute to the impairment, the permittee shall include in the SWMP controls targeting the pollutant(s) of concern along with any additional or modified controls required in the TMDL and this section. The SWMP and required annual reports must include information on implementing any focused controls required to reduce the pollutant(s) of concern as described below:

 - (a) Targeted Controls: The SWMP submitted with the first annual report must include a detailed description of all targeted controls to be implemented, such as identifying areas of focused effort or implementing additional Best Management Practices (BMPs) that will be implemented to reduce the pollutant(s) of concern in the impaired waters.
 - (b) Measurable Goals: For each targeted control, the SWMP must include a measurable goal and an implementation schedule describing BMPs to be implemented during each year of the permit term. Where the impairment is for bacteria, the permittee must, at minimum comply with the activities and schedules described in Table 1.a of Part I.C.2.(iii).
 - (c) Identification of Measurable Goal: The SWMP must identify a measurable goal for the pollutant(s) of concern. The value of the measurable goal must be based on one of the following options:
 - A. If the permittee is subject to a TMDL that identifies an aggregate Waste Load Allocation (WLA) for all or a class of permitted MS4 stormwater sources, then the SWMP may identify such WLA as the measurable goal. Where an aggregate WLA measurable goal is used, all affected MS4 operators are jointly responsible for progress in meeting the measurable goal and shall (jointly or individually) develop a monitoring/assessment plan. This program element may be coordinated with the monitoring required in Part III.A.
 - B. Alternatively, if multiple permittees are discharging into the same impaired water body with an approved TMDL (which has an aggregate WLA for all permitted stormwater MS4s), the MS4s may combine or share efforts, in consultation with/and the approval of NMED, to determine an alternative sub-measurable goal derived from the WLA for the pollutant(s) of concern (e.g., bacteria) for their respective MS4. The SWMP must clearly define this alternative approach and must describe how the sub-measurable goals would cumulatively support the aggregate WLA. Where an aggregate WLA measurable goal has been broken into sub-measurable goals for individual MS4s, each permittee is only responsible for progress in meeting its WLA sub-measurable goal.

- C. If the permittee is subject to an individual WLA specifically assigned to that permittee, the measurable goal must be the assigned WLA. Where WLAs have been individually assigned, or where the permittee is the only regulated MS4 within the urbanized area that is discharging into the impaired watershed with an approved TMDL, the permittee is only responsible for progress in meeting its WLA measurable goal.
- (d) Annual Report: The annual report must include an analysis of how the selected BMPs have been effective in contributing to achieving the measurable goal and shall include graphic representation of pollutant trends, along with computations of annual percent reductions achieved from the baseline loads and comparisons with the target loads.
- (e) Impairment for Bacteria: If the pollutant of concern is bacteria, the permittee shall include focused BMPs addressing the five areas below, as applicable, in the SWMP and implement as appropriate. If a TMDL Implementation Plan (a plan created by the State or a Tribe) is available, the permittee may refer to the TMDL Implementation Plan for appropriate BMPs. The SWMP and annual report must include justification for not implementing a particular BMP included in the TMDL Implementation Plan. The permittee may not exclude BMPs associated with the minimum control measures required under 40 CFR §122.34 from their list of proposed BMPs. The BMPs shall, as appropriate, address the following:
- A. Sanitary Sewer Systems
 - Make improvements to sanitary sewers;
 - Address lift station inadequacies;
 - Identify and implement operation and maintenance procedures;
 - Improve reporting of violations; and
 - Strengthen controls designed to prevent over flows
 - B. On-site Sewage Facilities (for entities with appropriate jurisdiction)
 - Identify and address failing systems; and
 - Address inadequate maintenance of On-Site Sewage Facilities (OSSFs).
 - C. Illicit Discharges and Dumping
 - Place additional effort to reduce waste sources of bacteria; for example, from septic systems, grease traps, and grit traps.
 - D. Animal Sources
 - Expand existing management programs to identify and target animal sources such as zoos, pet waste, and horse stables.
 - E. Residential Education: Increase focus to educate residents on:
 - Bacteria discharging from a residential site either during runoff events or directly;
 - Fats, oils, and grease clogging sanitary sewer lines and resulting overflows;
 - Decorative ponds; and
 - Pet waste.
- (f) Monitoring or Assessment of Progress: The permittee shall monitor or assess progress in achieving measurable goals and determining the effectiveness of BMPs, and shall include documentation of this monitoring or assessment in the SWMP and annual reports. In addition, the SWMP must include methods to be used. This program element may be coordinated with the monitoring required in Part III.A. The permittee may use the following methods either individually or in conjunction to evaluate progress towards the measurable goal and improvements in water quality as follows:
- A. Evaluating Program Implementation Measures: The permittee may evaluate and report progress towards the measurable goal by describing the activities and BMPs implemented, by identifying the appropriateness of the identified BMPs, and by evaluating the success of implementing the measurable goals. The permittee may assess progress by using program implementation indicators

such as: (1) number of sources identified or eliminated; (2) decrease in number of illegal dumping; (3) increase in illegal dumping reporting; (4) number of educational opportunities conducted; (5) reductions in SSOs; or, 6) increase in illegal discharge detection through dry screening, etc.; and

B. Assessing Improvements in Water Quality: The permittee may assess improvements in water quality by using available data for segment and assessment units of water bodies from other reliable sources, or by proposing and justifying a different approach such as collecting additional instream or outfall monitoring data, etc. Data may be acquired from NMED, local river authorities, partnerships, and/or other local efforts as appropriate. Progress towards achieving the measurable goal shall be reported in the annual report. Annual reports shall report the measurable goal and the year(s) during the permit term that the MS4 conducted additional sampling or other assessment activities.

- (g) Observing no Progress towards the Measurable Goal: If, by the end of the third year from the effective date of the permit, the permittee observes no progress toward the measurable goal either from program implementation or water quality assessments, the permittee shall identify alternative focused BMPs that address new or increased efforts towards the measurable goal. As appropriate, the MS4 may develop a new approach to identify the most significant sources of the pollutant(s) of concern and shall develop alternative focused BMPs (this may also include information that identifies issues beyond the MS4's control). These revised BMPs must be included in the SWMP and subsequent annual reports.

Where the permittee originally used a measurable goal based on an aggregated WLA, the permittee may combine or share efforts with other MS4s discharging to the same impaired stream segment to determine an alternative sub-measurable goal for the pollutant(s) of concern for their respective MS4s, as described in Part I.C.2.b.(i).(c).B above. Permittees must document, in their SWMP for the next permit term, the proposed schedule for the development and subsequent adoption of alternative sub-measurable goals for the pollutant(s) of concern for their respective MS4s and associated assessment of progress in meeting those individual goals.

(ii) Discharges Directly to Water Quality Impaired Water Bodies without an Approved TMDL:

The permittee shall also determine whether the permitted discharge is directly to one or more water quality impaired water bodies where a TMDL has not yet been approved by NMED and EPA. If the permittee discharges directly into an impaired water body without an approved TMDL, the permittee shall perform the following activities:

- (a) Discharging a Pollutant of Concern: The permittee shall:
- A. Determine whether the MS4 may be a source of the pollutant(s) of concern by referring to the CWA §303(d) list and then determining if discharges from the MS4 would be likely to contain the pollutant(s) of concern at levels of concern. The evaluation of CWA §303(d) list parameters should be carried out based on an analysis of existing data (e.g., Illicit Discharge and Improper Disposal Program) conducted within the permittee's jurisdiction.
 - B. Ensure that the SWMP includes focused BMPs, along with corresponding measurable goals, that the permittee will implement, to reduce, the discharge of pollutant(s) of concern that contribute to the impairment of the water body. (note: Only applicable if the permittee determines that the MS4 may discharge the pollutant(s) of concern to an impaired water body without a TMDL. The SWMP submitted with the first annual report must include a detailed description of proposed controls to be implemented along with corresponding measurable goals.
 - C. Amend the SWMP to include any additional BMPs to address the pollutant(s) of concern.
- (b) Impairment for Bacteria: Where the impairment is for bacteria, the permittee shall identify potential significant sources and develop and implement targeted BMPs to control bacteria from those sources (see Part I.C.2.b.(i).(e).A through E.. The permittee must, at minimum comply with the activities and

schedules described in Table 1.a of Part I.C.2.(iii). The annual report must include information on compliance with this section, including results of any sampling conducted by the permittee.

Note: Probable pollutant sources identified by permittees should be submitted to NMED on the following form: <ftp://ftp.nmenv.state.nm.us/www/swqb/Surveys/PublicProbableSourceIDSurvey.pdf>

- (c) Impairment for Nutrients: Where the impairment is for nutrients (e.g., nitrogen or phosphorus), the permittee shall identify potential significant sources and develop and implement targeted BMPs to control nutrients from potential sources. The permittee must, at minimum comply with the activities and schedules described in Table 1.b of Part I.C.2, (iii). The annual report must include information on compliance with this section, including results of any sampling conducted by the permittee.
 - (d) Impairment for Dissolved Oxygen: See Endangered Species Act (ESA) Requirements in Part I.C.3. These program elements may be coordinated with the monitoring required in Part III.A.
- (iii) Program Development and Implementation Schedules: Where the impairment is for nutrient constituent (e.g., nitrogen or phosphorus) or bacteria, the permittee must at minimum comply with the activities and schedules in Table 1.a and Table 1.b.

Table 1.a. Pre-TMDL Bacteria Program Development and Implementation Schedules

Activity	Class Permittee				
	A Phase I MS4s	B Phase II MS4s (2000 Census)	C New Phase II MS4s (2010 Census **)	D MS4s within Indian Lands	Cooperative (*) Any Permittee with cooperative programs
Identify potential significant sources of the pollutant of concern entering your MS4	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	One (1) year from effective date of permit	One (1) year from effective date of permit	Sixteen (16) months from effective date of permit
Develop (or modify an existing program ***) and implement a public education program to reduce the discharge of bacteria in municipal storm water contributed by (if applicable) by pets, recreational and exhibition livestock, and zoos.	Twelve (12) months from effective date of permit	Twelve (12) months from effective date of permit	Fourteen (14) months from effective date of permit	Fourteen (14) months from effective date of permit	Sixteen (16) months from effective date of permit
Develop (or modify an existing program ***) and implement a program to reduce the discharge of bacteria in municipal storm water contributed by areas within your MS4 served by on-site wastewater treatment systems.	Fourteen (14) months from effective date of permit	Fourteen (14) months from effective date of permit	Sixteen (16) months from effective date of permit	Sixteen (16) months from effective date of permit	Eighteen (18) months from effective date of permit
Review results to date from the Illicit Discharge Detection and Elimination program (see Part I.D.5.e) and modify as necessary to prioritize the detection and elimination of discharges contributing bacteria to the MS4	Fourteen (14) months from effective date of permit	Fourteen (14) months from effective date of permit	Sixteen (16) months from effective date of permit	Sixteen (16) months from effective date of permit	Eighteen (18) months from effective date of permit

Develop (or modify an existing program ***) and implement a program to reduce the discharge of bacteria in municipal storm water contributed by other significant source identified in the Illicit Discharge Detection and Elimination program (see Part I.D.5.e)	Sixteen (16) months from effective date of permit	Sixteen (16) months from effective date of permit	Eighteen (18) months from effective date of permit	Eighteen (18) months from effective date of permit	Twenty (20) months from effective date of permit
Include in the Annual Reports progress on program implementation and reducing the bacteria and updates their measurable goals as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary

(*) During development of cooperative programs, the permittee must continue to implement existing programs

(**) or MS4s designated by the Director

(***) Permittees previously covered under permit NMS000101 or NMR040000

Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

Table 1.b. Pre-TMDL Nutrient Program Development and Implementation Schedules

Activity	Class Permittee				
	A Phase I MS4s	B Phase II MS4s (2000 Census)	C New Phase II MS4s (2010 Census **)	D MS4s within Indian Lands	Cooperative (*) Any Permittee with cooperative programs
Identify potential significant sources of the pollutant of concern entering your MS4	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	One (1) year from effective date of permit	One (1) year from effective date of permit	Sixteen (16) months from effective date of permit
Develop (or modify an existing program ***) and implement a public education program to reduce the discharge of pollutant of concern in municipal storm water contributed by residential and commercial use of fertilizer	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	One (1) year from effective date of permit	One (1) year from effective date of permit	Sixteen (16) months from effective date of permit
Develop (or modify an existing program ***) and implement a program to reduce the discharge of the pollutant of concern in municipal storm water contributed by fertilizer use at municipal operations (e.g., parks, roadways, municipal facilities)	One (1) year from effective date of permit	One (1) year from effective date of permit	Sixteen (16) months from effective date of permit	Sixteen (16) months from effective date of permit	Eighteen (18) months from effective date of permit

Develop (or modify an existing program ***) and implement a program to reduce the discharge of the pollutant of concern in municipal storm water contributed by municipal and private golf courses within your jurisdiction	One (1) year from effective date of permit	One (1) year from effective date of permit	Sixteen (16) months from effective date of permit	Sixteen (16) months from effective date of permit	Eighteen (18) months from effective date of permit
Develop (or modify an existing program ***) and implement a program to reduce the discharge of the pollutant of concern in municipal storm water contributed by other significant source identified in the Illicit Discharge Detection and Elimination program (see Part I.D.5.e)	One (1) year from effective date of permit	One (1) year from effective date of permit	Sixteen (16) months from effective date of permit	Sixteen (16) months from effective date of permit	Eighteen (18) months from effective date of permit
Include in the Annual Reports progress on program implementation and reducing the nutrient pollutant of concern and updates their measurable goals	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary

(*) During development of cooperative programs, the permittee must continue to implement existing programs

(**) or MS4s designated by the Director

(***) Permittees previously covered under permit NMS000101 or NMR040000

Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

These program elements may be coordinated with the monitoring required in Part III.A.

3. **Endangered Species Act (ESA) Requirements.** Consistent with U.S. FWS Biological Opinion dated August 21, 2014 to ensure actions required by this permit are not likely to jeopardize the continued existence of any currently listed as endangered or threatened species or adversely affect its critical habitat, permittees shall meet the following requirements and include them in the SWMP:

a. **Dissolved Oxygen Strategy in the Receiving Waters of the Rio Grande:**

- (i) The permittees must identify (or continue identifying if previously covered under permit NMS000101) structural controls, natural or man-made topographical and geographical formations, MS4 operations, or oxygen demanding pollutants contributing to reduced dissolved oxygen in the receiving waters of the Rio Grande. The permittees shall implement controls, and update/revise as necessary, to eliminate discharge of pollutants at levels that cause or contribute to exceedances of applicable water quality standards for dissolved oxygen in waters of the Rio Grande. The permittees shall submit a summary of findings and a summary of activities undertaken under Part I.C.3.a.(i) with each Annual Report. The SWMP submitted with the first and fourth annual reports must include a detailed description of controls implemented (or/and proposed control to be implemented) along with corresponding measurable goals. (Applicable to all permittees).
- (ii) As required in Part I.C.1.d, the COA and AMAFCA shall revise the May 1, 2012 Strategy for dissolved oxygen to address dissolved oxygen at the North Diversion Channel Embayment and/or other MS4 locations. The permittees shall submit the revised strategy to FWS and EPA for approval within a year of permit issuance and progress reports with the subsequent Annual Reports (see also Part I.C.1.d.(iv)). The permittees shall ensure that actions to reduce pollutants or remedial activities selected for the North Diversion Channel Embayment and its watershed are implemented such that there is a reduction in

frequency and magnitude of all low oxygen storm water discharge events that occur in the Embayment or downstream in the MRG as indicated in Table 1.c. Actions to meet the year 3 measurable goals must be taken within 2 years from the effective date of the permit. Actions to meet the year 5 measurable goals must be taken within 4 years from the effective date of the permit.

Table 1.c Measurable Goals of Anoxic and Hypoxia Levels Measured by Permit Year

<i>Permit Year</i>	<i>Anoxic Events*, max</i>	<i>Hypoxic Events**, max</i>
<i>Year 1</i>	<i>18</i>	<i>36</i>
<i>Year 2</i>	<i>18</i>	<i>36</i>
<i>Year 3</i>	<i>9</i>	<i>18</i>
<i>Year 4</i>	<i>9</i>	<i>18</i>
<i>Year 5</i>	<i>4</i>	<i>9</i>

Notes:

- * Anoxic Events: See Appendix G, for oxygen saturation and dissolved oxygen concentrations at various water temperatures and atmospheric pressures for the North Diversion Channel area that are considered anoxic and associated with the Rio Grande Silvery minnow lethality.
- ** Hypoxic Events: See Appendix for G, for oxygen saturation and dissolved oxygen concentrations at various water temperatures and atmospheric pressures for the North Diversion Channel area that are considered hypoxic and associated with the Rio Grande silvery minnow harassment.

(a) The revised strategy shall include:

- A. A Monitoring Plan describing all procedures necessary to continue conducting continuous monitoring of dissolved oxygen (DO) and temperature in the North Diversion Channel Embayment and at one (1) location in the Rio Grande downstream of the mouth of the North Diversion Channel within the action area (e.g., Central Bridge). The monitoring plan to be developed will describe the methodology used to assure its quality, and will identify the means necessary to address any gaps that occur during monitoring, in a timely manner (that is, within 24 to 48 hours).
- B. A Quality Assurance and Quality Control (QA/QC) Plan describing all standard operating procedures, quality assurance and quality control plans, maintenance, and implementation schedules that will assure timely and accurate collection and reporting of water temperature, dissolved oxygen, oxygen saturation, and flow. The QA/QC plan should include all procedures for estimating oxygen data when any oxygen monitoring equipment fail. Until a monitoring plan with quality assurance and quality control is submitted by EPA, any data, including any provisional or incomplete data from the most recent measurement period (e.g. if inoperative monitoring equipment for one day, use data from previous day) shall be used as substitutes for all values in the calculations for determinations of incidental takes. Given the nature of the data collected as surrogate for incidental take, all data, even provisional data (e.g., oxygen/water temperature data, associated metadata such as flows, date, times), shall be provided to the Service in a spreadsheet or database format within two weeks after formal request.

(b) Reporting: The COA and AMAFCA shall provide

- A. An Annual Incidental Take Report to EPA and the Service that includes the following information: beginning and end date of any qualifying stormwater events, dissolved oxygen values and water temperature in the North Diversion Channel Embayment, dissolved oxygen values and water temperature at a downstream monitoring station in the MRG, flow rate in the North Diversion Channel, mean daily flow rate in the MRG, evaluation of oxygen and temperature data

as either anoxic or hypoxic using Table 2 of the BO, and estimate the number of silvery minnows taken based on Appendix A of the BO. Electronic copy of The Annual Incidental Take Report should be provided with the Annual Report required under Part III.B no later than December 1 for the proceeding calendar year.

- B. A summary of data and findings with each Annual Report to EPA and the Service. All data collected (including provisional oxygen and water temperature data, and associated metadata), transferred, stored, summarized, and evaluated shall be included in the Annual Report. If additional data is requested by EPA or the Service, The COA and AMAFCA shall provide such as information within two weeks upon request,

The revised strategy required under Part I.C.3.a.(ii), the Annual Incidental Take Reports required under Part I.C.3.a.(ii).A, and Annual Reports required under Part III.B can be submitted to FWS via e-mail nmesfo@fws.gov and joel_lusk@fws.gov, or by mail to the New Mexico Ecological Services field office, 2105 Osuna Road NE, Albuquerque, New Mexico 87113. (Only Applicable to the COA and AMAFCA)

- b. Sediment Pollutant Load Reduction Strategy (Applicable to all permittees): The permittee must develop, implement, and evaluate a sediment pollutant load reduction strategy to assess and reduce pollutant loads associated with sediment (e.g., metals, etc. adsorbed to or traveling with sediment, as opposed to clean sediment) into the receiving waters of the Rio Grande. The strategy must include the following elements:
- (i) Sediment Assessment: The permittee must identify and investigate areas within its jurisdiction that may be contributing excessive levels (e.g., levels that may contribute to exceedance of applicable Water Quality Standards) of pollutants in sediments to the receiving waters of the Rio Grande as a result of stormwater discharges. The permittee must identify structural elements, natural or man-made topographical and geographical formations, MS4 operations activities, and areas indicated as potential sources of sediments pollutants in the receiving waters of the Rio Grande. At the time of assessment, the permittee shall record any observed erosion of soil or sediment along ephemeral channels, arroyos, or stream banks, noting the scouring or sedimentation in streams. The assessment should be made using available data from federal, state, or local studies supplemented as necessary with collection of additional data. The permittee must describe, in the first annual report, all standard operating procedures, quality assurance plans to assure that accurate data are collected, summarized, evaluated and reported.
 - (ii) Estimate Baseline Loading: Based on the results of the sediment pollutants assessment required in Part I.C.3.b.(i) above the permittee must provide estimates of baseline total sediment loading and relative potential for contamination of those sediments by urban activities for drainage areas, sub-watersheds, Impervious Areas (IAs), and/or Directly Connected Impervious Area (DCIAs) draining directly to a surface waterbody or other feature used to convey waters of the United States. Sediment loads may be provided for targeted areas in the entire Middle Rio Grande Watershed (see Appendix A) using an individual or cooperative approach. Any data available and/or preliminary numeric modeling results may be used in estimating loads.
 - (iii) Targeted Controls: Include a detailed description of all proposed targeted controls and BMPs that will be implemented to reduce sediment pollutant loads calculated in Part I.C.3.b.(ii) above during the next ten (10) years of permit issuance. For each targeted control, the permittee must include interim measurable goals (e.g., interim sediment pollutant load reductions) and an implementation and maintenance schedule, including interim milestones, for each control measure, and as appropriate, the months and years in which the MS4 will undertake the required actions. Any data available and/or preliminary numeric modeling results may be used in establishing the targeted controls, BMPs, and interim measurable goals. The permittee must prioritize pollutant load reduction efforts and target areas (e.g. drainage areas, sub-watersheds, IAs, DCIAs) that generate the highest annual average pollutant loads.
 - (iv) Monitoring and Interim Reporting: The permittee shall monitor or assess progress in achieving interim measurable goals and determining the effectiveness of BMPs, and shall include documentation of this

monitoring or assessment in the SWMP and annual reports. In addition, the SWMP must include methods to be used. This program element may be coordinated with the monitoring required in Part III.A.

- (v) Progress Evaluation and Reporting: The permittee must assess the overall success of the Sediment Pollutant Load Reduction Strategy and document both direct and indirect measurements of program effectiveness in a Progress Report to be submitted with the fifth Annual Report. Data must be analyzed, interpreted, and reported so that results can be applied to such purposes as documenting effectiveness of the BMPs and compliance with the ESA requirements specified in Part I.C.3.b. The Progress Report must include:
- (a) A list of species likely to be within the action area;
 - (b) Type and number of structural BMPs installed;
 - (c) Evaluation of pollutant source reduction efforts;
 - (d) Any recommendation based on program evaluation;
 - (e) Description of how the interim sediment load reduction goals established in Part I.C.3.b.(iii) were achieved; and
 - (f) Future planning activities needed to achieve increase of sediment load reduction required in Part I.C.3.d.(iii).
- (vi) Critical Habitat (Applicable to all permittees): Verify that the installation of stormwater BMPs will not occur in or adversely affect currently listed endangered or threatened species critical habitat by reviewing the activities and locations of stormwater BMP installation within the location of critical habitat of currently listed endangered or threatened species at the U.S. Fish and Wildlife service website <http://criticalhabitat.fws.gov/crithab/>.

D. STORMWATER MANAGEMENT PROGRAM (SWMP)

1. **General Requirements**. The permittee must develop, implement, and enforce a SWMP designed to reduce the discharge of pollutants from a MS4 to the maximum extent practicable (MEP), to protect water quality (including that of downstream state or tribal waters), and to satisfy applicable surface water quality standards. The permittees shall continue implementation of existing SWMPs, and where necessary modify or revise existing elements and/or develop new elements to comply with all discharges from the MS4 authorized in Part I.A. The updated SWMP shall satisfy all requirements of this permit, and be implemented in accordance with Section 402(p)(3)(B) of the Clean Water Act (Act), and the Stormwater Regulations (40 CFR §122.26 and §122.34). This permit does not extend any compliance deadlines set forth in the previous permits (NMS000101 with effective date March 1, 2012 and permits No: NM NMR040000 and NMR040001 with effective date July 1, 2007).

If a permittee is already in compliance with one or more requirements in this section because it is already subject to and complying with a related local, state, or federal requirement that is at least as stringent as this permit's requirement, the permittee may reference the relevant requirement as part of the SWMP and document why this permit's requirement has been satisfied. Where this permit has additional conditions that apply, above and beyond what is required by the related local, state, or federal requirement, the permittee is still responsible for complying with these additional conditions in this permit.

2. **Legal Authority**. Each permittee shall implement the legal authority granted by the State or Tribal Government to control discharges to and from those portions of the MS4 over which it has jurisdiction. The difference in each co-permittee's jurisdiction and legal authorities, especially with respect to third parties, may be taken into account in developing the scope of program elements and necessary agreements (i.e. Joint Powers Agreement, Memorandum of Agreement, Memorandum of Understanding, etc.). Permittees may use a combination of statute, ordinance, permit, contract, order, interagency or inter-jurisdictional agreement(s) with other permittees to:

- a. Control the contribution of pollutants to the MS4 by stormwater discharges associated with industrial activity and the quality of stormwater discharged from sites of industrial activity (applicable only to MS4s located within the corporate boundary of the COA);
- b. Control the discharge of stormwater and pollutants associated with land disturbance and development activities, both during the construction phase and after site stabilization has been achieved (post-construction), consistent with Part I.D.5.a and Part I.D.5.b;
- c. Prohibit illicit discharges and sanitary sewer overflows to the MS4 and require removal of such discharges consistent with Part I.D.5.e;
- d. Control the discharge of spills and prohibit the dumping or disposal of materials other than stormwater (e.g. industrial and commercial wastes, trash, used motor vehicle fluids, leaf litter, grass clippings, animal wastes, etc.) into the MS4;
- e. Control, through interagency or inter-jurisdictional agreements among permittees, the contribution of pollutants from one (1) portion of the MS4 to another;
- f. Require compliance with conditions in ordinances, permits, contracts and/or orders; and
- g. Carry out all inspection, surveillance and monitoring procedures necessary to maintain compliance with permit conditions.

3. **Shared Responsibility and Cooperative Programs.**

- a. The SWMP, in addition to any interagency or inter-jurisdictional agreement(s) among permittees, (e.g., the Joint Powers Agreement to be entered into by the permittees), shall clearly identify the roles and responsibilities of each permittee.
- b. Implementation of the SWMP may be achieved through participation with other permittees, public agencies, or private entities in cooperative efforts to satisfy the requirements of Part I.D in lieu of creating duplicate program elements for each individual permittee.
 - (i) Implementation of one or more of the control measures may be shared with another entity, or the entity may fully take over the measure. A permittee may rely on another entity only if:
 - (a) the other entity, in fact, implements the control measure;
 - (b) the control measure, or component of that measure, is at least as stringent as the corresponding permit requirement; or,
 - (c) the other entity agrees to implement the control measure on the permittee's behalf. Written acceptance of this obligation is expected. The permittee must maintain this obligation as part of the SWMP description. If the other entity agrees to report on the minimum measure, the permittee must supply the other entity with the reporting requirements in Part III.D of this permit. The permittee remains responsible for compliance with the permit obligations if the other entity fails to implement the control measure component.
- c. Each permittee shall provide adequate finance, staff, equipment, and support capabilities to fully implement its SWMP and all requirements of this permit.

4. **Measurable Goals.** The permittees shall control the discharge of pollutants from its MS4. The permittee shall implement the provisions set forth in Part I.D.5 below, and shall at a minimum incorporate into the SWMP the control measures listed in Part I.D.5 below. The SWMP shall include measurable goals, including interim milestones, for each control measure, and as appropriate, the months and years in which the MS4 will undertake the required actions and the frequency of the action.

5. Control Measures.

a. Construction Site Stormwater Runoff Control.

- (i) The permittee shall develop, revise, implement, and enforce a program to reduce pollutants in any stormwater runoff to the MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of stormwater discharges from construction activity disturbing less than one acre must be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. **Permittees previously covered under permit NMS000101 or NMR040000 must continue existing programs, updating as necessary, to comply with the requirements of this permit.** (Note: Highway Departments and Flood Control Authorities may only apply the construction site stormwater management program to the permittees's own construction projects)
- (ii) The program must include the development, implementation, and enforcement of, at a minimum:
 - (a) An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under State, Tribal or local law;
 - (b) Requirements for construction site operators to implement appropriate erosion and sediment control best management practices (both structural and non-structural);
 - (c) Requirements for construction site operators to control waste such as, but not limited to, discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality (see EPA guidance at <http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=browse&Rbutton=detail&bmp=117>);
 - (d) Procedures for site plan review which incorporate consideration of potential water quality impacts. The site plan review must be conducted prior to commencement of construction activities, and include a review of the site design, the planned operations at the construction site, the planned control measures during the construction phase (including the technical criteria for selection of the control measures), and the planned controls to be used to manage runoff created after the development;
 - (e) Procedures for receipt and consideration of information submitted by the public;
 - (f) Procedures for site inspection (during construction) and enforcement of control measures, including provisions to ensure proper construction, operation, maintenance, and repair. The procedures must clearly define who is responsible for site inspections; who has the authority to implement enforcement procedures; and the steps utilized to identify priority sites for inspection and enforcement based on the nature of the construction activity, topography, and the characteristics of soils and the quality of the receiving water. If a construction site operator fails to comply with procedures or policies established by the permittee, the permittee may request EPA enforcement assistance. The site inspection and enforcement procedures must describe sanctions and enforcement mechanism(s) for violations of permit requirements and penalties with detail regarding corrective action follow-up procedures, including enforcement escalation procedures for recalcitrant or repeat offenders. Possible sanctions include non-monetary penalties (such as stop work orders and/or permit denials for non-compliance), as well as monetary penalties such as fines and bonding requirements;
 - (g) Procedures to educate and train permittee personnel involved in the planning, review, permitting, and/or approval of construction site plans, inspections and enforcement. Education and training shall also be provided for developers, construction site operators, contractors and supporting personnel, including requiring a stormwater pollution prevention plan for construction sites within the permittee's jurisdiction;
 - (h) Procedures for keeping records of and tracking all regulated construction activities within the MS4, i.e. site reviews, inspections, inspection reports, warning letters and other enforcement documents. A

summary of the number and frequency of site reviews, inspections (including inspector's checklist for oversight of sediment and erosion controls and proper disposal of construction wastes) and enforcement activities that are conducted annually and cumulatively during the permit term shall be included in each annual report; and

- (iii) Annually conduct site inspections of 100 percent of all construction projects cumulatively disturbing one (1) or more acres within the MS4 jurisdiction. Site inspections are to be followed by any necessary compliance or enforcement action. Follow-up inspections are to be conducted to ensure corrective maintenance has occurred; and, all projects must be inspected at completion for confirmation of final stabilization.
- (iv) The permittee must coordinate with all departments and boards with jurisdiction over the planning, review, permitting, or approval of public and private construction projects/activities within the permit area to ensure that the construction stormwater runoff controls eliminate erosion and maintain sediment on site. Planning documents include, but are not limited to: comprehensive or master plans, subdivision ordinances, general land use plan, zoning code, transportation master plan, specific area plans, such as sector plan, site area plans, corridor plans, or unified development ordinances.
- (v) The site plan review required in Part I.D.5.a.(ii)(d) must include an evaluation of opportunities for use of GI/LID/Sustainable practices and when the opportunity exists, encourage project proponents to incorporate such practices into the site design to mimic the pre-development hydrology of the previously undeveloped site. For purposes of this permit, pre-development hydrology shall be met according to Part I.D.5.b of this permit. (consistent with any limitations on that capture). Include a reporting requirement of the number of plans that had opportunities to implement these practices and how many incorporated these practices.
- (vi) The permittee must include in the SWMP a description of the mechanism(s) that will be utilized to comply with each of the elements required in Part I.D.5.a.(i) throughout Part I.D.5.a.(v), including description of each individual BMP (both structural or non-structural) or source control measures and its corresponding measurable goal.
- (vii) The permittee shall assess the overall success of the program, and document the program effectiveness in the annual report. The permittee must include in each annual report:
 - (a) A summary of the frequency of site reviews, inspections and enforcement activities that are conducted annually and cumulatively during the permit term.
 - (b) The number of plans that had the opportunity to implement GI/LID/Sustainable practices and how many incorporated the practices.

Program Flexibility Elements

- (viii) The permittee may use storm water educational materials locally developed or provided by the EPA (refer to <http://water.epa.gov/polwaste/npdes/swbmp/index.cfm>, <http://www.epa.gov/smartgrowth/parking.htm>, <http://www.epa.gov/smartgrowth/stormwater.htm>), the NMED, environmental, public interest or trade organizations, and/or other MS4s.
- (ix) The permittee may develop or update existing construction handbooks (e.g., the COA NPDES Stormwater Management Guidelines for Construction and Industrial Activities Handbook) to be consistent with promulgated construction and development effluent limitation guidelines.
- (x) The construction site inspections required in Part I.D.5.a.(iii) may be carried out in conjunction with the permittee's building code inspections using a screening prioritization process.

Table 2. Construction Site Stormwater Runoff Control - Program Development and Implementation Schedules

Activity	Permittee Class				
	A Phase I MS4s	B Phase II MS4s (2000 Census)	C New Phase II MS4s (2010 Census **)	D MS4s within Indian Lands	Cooperative (*) Any Permittee with cooperative programs
Development of an ordinance or other regulatory mechanism as required in Part I.D.5.a.(ii)(a)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	One (1) year from effective date of permit	One (1) year from effective date of permit	Eighteen (18) months from effective date of the permit
Develop requirements and procedures as required in Part I.D.5.a.(ii)(b) through in Part I.D.5.a.(ii)(h)	Ten (10) months from effective date of permit	Thirteen (13) months from effective date of permit	Sixteen (16) months from effective date of permit	Sixteen (16) months from effective date of permit	Eighteen (18) months from effective date of permit
Annually conduct site inspections of 100 percent of all construction projects cumulatively disturbing one (1) or more acres as required in Part I.D.5.a.(iii)	Ten (10) months from effective date of permit	Start Thirteen (13) months from effective date of permit and annually thereafter	Start Sixteen (16) months from effective date of permit and annually thereafter	Start eighteen (18) months from effective date of permit and thereafter	Start two (2) years from effective date of permit and thereafter
Coordinate with all departments and boards with jurisdiction over the planning, review, permitting, or approval of public and private construction projects/activities within the permit area as required in Part I.D.5.a.(iv)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	Twelve (12) months from effective date of permit	Twelve (12) months from effective date of permit	Fourteen (14) months from effective date of permit
Evaluation of GI/LID/Sustainable practices in site plan reviews as required in Part I.D.5.a.(v)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	Twelve (12) months from effective date of permit	Twelve (12) months from effective date of permit	Fourteen (14) months from effective date of permit
Update the SWMP document and annual report as required in Part I.D.5.a.(vi) and in Part I.D.5.a.(vii)	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary
Enhance the program to include program elements in Part I.D.5.a.(viii) through Part I.D.5.a.(x)	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary

(*) During development of cooperative programs, the permittee must continue to implement existing programs. (**) or MS4s designated by the Director

Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

b. Post-Construction Stormwater Management in New Development and Redevelopment

(i) The permittee must develop, revise, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the MS4. The program must ensure that controls are in place that would prevent or minimize water quality impacts. **Permittees previously covered under NMS000101 or NMR040000 must continue existing programs, updating as necessary, to comply with the requirements of this permit.** (Note: Highway Departments and Flood Control Authorities may only apply the post-construction stormwater management program to the permittee's own construction projects)

(ii) The program must include the development, implementation, and enforcement of, at a minimum:

(a) Strategies which include a combination of structural and/or non-structural best management practices (BMPs) to control pollutants in stormwater runoff.

(b) An ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State, Tribal or local law. The ordinance or policy must:

Incorporate a stormwater quality design standard that manages on-site the 90th percentile storm event discharge volume associated with new development sites and 80th percentile storm event discharge volume associated with redevelopment sites, through stormwater controls that infiltrate, evapotranspire the discharge volume, except in instances where full compliance cannot be achieved, as provided in Part I.D.5.b.(v). The stormwater from rooftop discharge may be harvested and used on-site for non-commercial use. Any controls utilizing impoundments that are also used for flood control that are located in areas where the New Mexico Office of the State Engineer requirements at NMAC 19.26.2.15 (see also Section 72-5-32 NMSA) apply must drain within 96 hours unless the state engineer has issued a waiver to the owner of the impoundment.

Options to implement the site design standard include, but not limited to: management of the discharge volume achieved by canopy interception, soil amendments, rainfall harvesting, rain tanks and cisterns, engineered infiltration, extended filtration, dry swales, bioretention, roof top disconnections, permeable pavement, porous concrete, permeable pavers, reforestation, grass channels, green roofs and other appropriate techniques, and any combination of these practices, including implementation of other stormwater controls used to reduce pollutants in stormwater (e.g., a water quality facility).

Estimation of the 90th or 80th percentile storm event discharge volume is included in EPA Technical Report entitled "*Estimating Predevelopment Hydrology in the Middle Rio Grande Watershed, New Mexico, EPA Publication Number 832-R-14-007*". Permittees can also estimate:

Option A: a site specific 90th or 80th percentile storm event discharge volume using methodology specified in the referenced EPA Technical Report.

Option B: a site specific pre-development hydrology and associated storm event discharge volume using methodology specified in the referenced EPA technical Report.

(c) The permittee must ensure the appropriate implementation of the structural BMPs by considering some or all of the following: pre-construction review of BMP designs; inspections during construction to verify BMPs are built as designed; post-construction inspection and maintenance of BMPs; and penalty provisions for the noncompliance with preconstruction BMP design; failure to construct BMPs

- in accordance with the agreed upon pre-construction design; and ineffective post-construction operation and maintenance of BMPs;
- (d) The permittee must ensure that the post-construction program requirements are constantly reviewed and revised as appropriate to incorporate improvements in control techniques;
 - (e) Procedure to develop and implement an educational program for project developers regarding designs to control water quality effects from stormwater, and a training program for plan review staff regarding stormwater standards, site design techniques and controls, including training regarding GI/LID/Sustainability practices. Training may be developed independently or obtained from outside resources, i.e. federal, state, or local experts;
 - (f) Procedures for site inspection and enforcement to ensure proper long-term operation, maintenance, and repair of stormwater management practices that are put into place as part of construction projects/activities. Procedure(s) shall include the requirement that as-built plans be submitted within ninety (90) days of completion of construction projects/activities that include controls designed to manage the stormwater associated with the completed site (post-construction stormwater management). Procedure(s) may include the use of dedicated funds or escrow accounts for development projects or the adoption by the permittee of all privately owned control measures. This may also include the development of maintenance contracts between the owner of the control measure and the permittee. The maintenance contract shall include verification of maintenance practices by the owner, allows the MS4 owner/operator to inspect the maintenance practices, and perform maintenance if inspections indicate neglect by the owner;
 - (g) Procedures to control the discharge of pollutants related to commercial application and distribution of pesticides, herbicides, and fertilizers where permittee(s) hold jurisdiction over lands not directly owned by that entity (e.g., incorporated city). The procedures must ensure that herbicides and pesticides applicators doing business within the permittee's jurisdiction have been properly trained and certified, are encouraged to use the least toxic products, and control use and application rates according to the applicable requirements; and
 - (h) Procedure or system to review and update, as necessary, the existing program to ensure that stormwater controls or management practices for new development and redevelopment projects/activities continue to meet the requirements and objectives of the permit.
- (iii) The permittee must coordinate with all departments and boards with jurisdiction over the planning, review, permitting, or approval of public and private new development and redevelopment projects/activities within the permit area to ensure the hydrology associated with new development and redevelopment sites mimic to the extent practicable the pre-development hydrology of the previously undeveloped site, except in instances where the pre-development hydrology requirement conflicts with applicable water rights appropriation requirements. For purposes of this permit, pre-development hydrology shall be met by capturing the 90th percentile storm event runoff (consistent with any limitations on that capture) which under undeveloped natural conditions would be expected to infiltrate or evapotranspire on-site and result in little, if any, off-site runoff. (Note: This permit does not prevent permittees from requiring additional controls for flood control purposes.) Planning documents include, but are not limited to: comprehensive or master plans, subdivision ordinances, general land use plan, zoning code, transportation master plan, specific area plans, such as sector plan, site area plans, corridor plans, or unified development ordinances.
- (iv) The permittee must assess all existing codes, ordinances, planning documents and other applicable regulations, for impediments to the use of GI/LID/Sustainable practices. The assessment shall include a list of the identified impediments, necessary regulation changes, and recommendations and proposed schedules to incorporate policies and standards to relevant documents and procedures to maximize infiltration, recharge, water harvesting, habitat improvement, and hydrological management of stormwater runoff as allowed under the applicable water rights appropriation requirements. The permittee must develop a report of the assessment findings, which is to be used to provide information to the permittee, of the regulation changes necessary to remove impediments and allow implementation of these practices.

- (v) Alternative Compliance for Infeasibility due to Site Constrains:
- (a) Infeasibility to manage the design standard volume specified in Part I(D)(5)(b)(ii)(b), or a portion of the design standard volume, onsite may result from site constraints including the following:
 - A. too small a lot outside of the building footprint to create the necessary infiltrative capacity even with amended soils;
 - B. soil instability as documented by a thorough geotechnical analysis;
 - C. a site use that is inconsistent with capture and reuse of storm water;
 - D. other physical conditions; or,
 - E. to comply with applicable requirements for on-site flood control structures leaves insufficient area to meet the standard.
 - (b) A determination that it is infeasible to manage the design standard volume specified in Part I.D.5.b.(ii)(b), or a portion of the design standard volume, on site may not be based solely on the difficulty or cost of implementing onsite control measures, but must include multiple criteria that rule out an adequate combination of the practices set forth in Part I.D,5.b.(v).
 - (c) This permit does not prevent imposition of more stringent requirements related to flood control. Where both the permittee's site design standard ordinance or policy and local flood control requirements on site cannot be met due to site conditions, the standard may be met through a combination of on-site and off-site controls.
 - (d) Where applicable New Mexico water law limits the ability to fully manage the design standard volume on site, measures to minimize increased discharge consistent with requirements under New Mexico water law must still be implemented.
 - (e) In instances where an alternative to compliance with the standard on site is chosen, technical justification as to the infeasibility of on-site management of the entire design standard volume, or a portion of the design standard volume, is required to be documented by submitting to the permittee a site-specific hydrologic and/or design analysis conducted and endorsed by a registered professional engineer, geologist, architect, and/or landscape architect.
 - (f) When a Permittee determines a project applicant has demonstrated infeasibility due to site constraints specified in Part I.D.5.b.(v) to manage the design standard volume specified in Part I.D.5.b.(ii).(b) or a portion of the design standard volume on-site, the Permittee shall require one of the following mitigation options:
 - A. *Off-site mitigation.* The off-site mitigation option only applies to redevelopment sites and cannot be applied to new development. Management of the standard volume, or a portion of the volume, may be implemented at another location within the MS4 area, approved by the permittee. The permittee shall identify priority areas within the MS4 in which mitigation projects can be completed. The permittee shall determine who will be responsible for long-term maintenance on off-site mitigation projects.
 - B. *Ground Water Replenishment Project:* Implementation of a project that has been determined to provide an opportunity to replenish regional ground water supplies at an offsite location.
 - C. *Payment in lieu.* Payment in lieu may be made to the permittee, who will apply the funds to a public stormwater project. MS4s shall maintain a publicly accessible database of approved projects for which these payments may be used.

- D. Other.* In a situation where alternative options A through C above are not feasible and the permittee wants to establish another alternative option for projects, the permittee may submit to the EPA for approval, the alternative option that meets the standard.
- (vi) The permittee must estimate the number of acres of impervious area (IA) and directly connected impervious area (DCIA). For the purpose of this part, IA includes conventional pavements, sidewalks, driveways, roadways, parking lots, and rooftops. DCIA is the portion of IA with a direct hydraulic connection to the permittee's MS4 or a waterbody via continuous paved surfaces, gutters, pipes, and other impervious features. DCIA typically does not include isolated impervious areas with an indirect hydraulic connection to the MS4 (e.g., swale or detention basin) or that otherwise drain to a pervious area.
- (vii) The permittee must develop an inventory and priority ranking of MS4-owned property and infrastructure (including public right-of-way) that may have the potential to be retrofitted with control measures designed to control the frequency, volume, and peak intensity of stormwater discharges to and from its MS4. In determining the potential for retrofitting, the permittee shall consider factors such as the complexity and cost of implementation, public safety, access for maintenance purposes, subsurface geology, depth to water table, proximity to aquifers and subsurface infrastructure including sanitary sewers and septic systems, and opportunities for public use and education under the applicable water right requirements and restrictions. In determining its priority ranking, the permittee shall consider factors such as schedules for planned capital improvements to storm and sanitary sewer infrastructure and paving projects; current storm sewer level of service and control of discharges to impaired waters, streams, and critical receiving water (drinking water supply sources);
- (viii) The permittee must incorporate watershed protection elements into relevant policy and/or planning documents as they come up for regular review. If a relevant planning document is not scheduled for review during the term of this permit, the permittee must identify the elements that cannot be implemented until that document is revised, and provide to EPA and NMED a schedule for incorporation and implementation not to exceed five years from the effective date of this permit. As applicable to each permittee's MS4 jurisdiction, policy and/or planning documents must include the following:
- (a) A description of master planning and project planning procedures to control the discharge of pollutants to and from the MS4.
 - (b) Minimize the amount of impervious surfaces (roads, parking lots, roofs, etc.) within each watershed, by controlling the unnecessary creation, extension and widening of impervious parking lots, roads and associated development. The permittee may evaluate the need to add impervious surface on a case-by-case basis and seek to identify alternatives that will meet the need without creating the impervious surface.
 - (c) Identify environmentally and ecologically sensitive areas that provide water quality benefits and serve critical watershed functions within the MS4 and ensure requirements to preserve, protect, create and/or restore these areas are developed and implemented during the plan and design phases of projects in these identified areas. These areas may include, but are not limited to critical watersheds, floodplains, and areas with endangered species concerns and historic properties. Stakeholders shall be consulted as appropriate.
 - (d) Implement stormwater management practices that minimize water quality impacts to streams, including disconnecting direct discharges to surface waters from impervious surfaces such as parking lots.
 - (e) Implement stormwater management practices that protect and enhance groundwater recharge as allowed under the applicable water rights laws.
 - (f) Seek to avoid or prevent hydromodification of streams and other water bodies caused by development, including roads, highways, and bridges.

- (g) Develop and implement policies to protect native soils, prevent topsoil stripping, and prevent compaction of soils.
- (h) The program must be specifically tailored to address local community needs (e.g. protection to drinking water sources, reduction of water quality impacts) and must be designed to attempt to maintain pre-development runoff conditions.
- (ix) The permittee must update the SWMP as necessary to include a description of the mechanism(s) utilized to comply with each of the elements required in Part I.D.5.b.(i) throughout Part I.D.5.b.(viii) as well as the citations and descriptions of design standards for structural and non-structural controls to control pollutants in stormwater runoff, including discussion of the methodology used during design for estimating impacts to water quality and selecting structural and non-structural controls. Description of measurable goals for each BMP (structural or non-structural) or each stormwater control must be included in the SWMP.
- (x) The permittee shall assess the overall success of the program, and document the program effectiveness in the annual report. The following information must be included in each annual report:
 - (a) Include a summary and analysis of all maintenance, inspections and enforcement, and the number and frequency of inspections performed annually.
 - (b) A cumulative listing of the annual modifications made to the Post-Construction Stormwater Management Program during the permit term, and a cumulative listing of annual revisions to administrative procedures made or ordinances enacted during the permit term.
 - (c) According to the schedule presented in the Program Development and Implementation Schedule in Table 3, the permittee must
 - A. Report the number of MS4-owned properties and infrastructure that have been retrofitted with control measures designed to control the frequency, volume, and peak intensity of stormwater discharges. The permittee may also include in its annual report non-MS4 owned property that has been retrofitted with control measures designed to control the frequency, volume, and peak intensity of stormwater discharges.
 - B. As required in Part I.D.5.b.(vi), report the tabulated results for IA and DCIA and its estimation methodology. In each subsequent annual report, the permittee shall estimate the number of acres of IA and DCIA that have been added or removed during the prior year. The permittee shall include in its estimates the additions and reductions resulting from development, redevelopment, or retrofit projects undertaken directly by the permittee; or by private developers and other parties in a voluntary manner or in compliance with the permittee's regulations.

Program Flexibility Elements:

- (xi) The permittee may use storm water educational materials locally developed or provided by EPA (refer to <http://water.epa.gov/polwaste/npdes/swbmp/index.cfm>, <http://www.epa.gov/smartgrowth/parking.htm>, and <http://www.epa.gov/smartgrowth/stormwater.htm>); the NMED; environmental, public interest or trade organizations; and/or other MS4s.
- (xii) When choosing appropriate BMPs, the permittee may participate in locally-based watershed planning efforts, which attempt to involve a diverse group of stakeholders including interested citizens. When developing a program that is consistent with this measure's intent, the permittee may adopt a planning process that identifies the municipality's program goals (e.g., minimize water quality impacts resulting from post-construction runoff from new development and redevelopment), implementation strategies (e.g., adopt a combination of structural and/or non-structural BMPs), operation and maintenance policies and procedures, and enforcement procedures.

- (xiii) The permittee may incorporate the following elements in the Post-Construction Stormwater Management in New Development and Redevelopment program required in Part I.D.5.b.(ii)(b):
- (a) Provide requirements and standards to direct growth to identified areas to protect environmentally and ecologically sensitive areas such as floodplains and/or other areas with endangered species and historic properties concerns;
 - (b) Include requirements to maintain and/or increase open space/buffers along sensitive water bodies, minimize impervious surfaces, and minimize disturbance of soils and vegetation; and
 - (c) Encourage infill development in higher density urban areas, and areas with existing storm sewer infrastructure.

Table 3. Post-Construction Stormwater Management in New Development and Redevelopment - Program Development and Implementation Schedules

Activity	Permittee Class				
	A Phase I MS4s	B Phase II MS4s (2000 Census)	C New Phase II MS4s (2010 Census **)	D MS4s within Indian Lands	Cooperative (*) Any Permittee with cooperative programs
Development of strategies as required in Part I.D.5.b.(ii).(a)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	Twelve (12) months from effective date of permit	Twelve (12) months from effective date of permit	Fourteen (14) months from effective date of permit
Development of an ordinance or other regulatory mechanism as required in Part I.D.5.b.(ii).(b)	Twenty (24) months from effective date of permit	Thirty (30) months from effective date of permit	Thirty six (36) months from effective date of permit	Thirty six (36) months from effective date of permit	Thirty six (36) months from effective date of permit
Implementation and enforcement, via the ordinance or other regulatory mechanism, of site design standards as required in Part I.D.5.b.(ii).(b)	Within thirty six (36) months from effective date of the permit	Within forty two (42) months from the effective date of the permit	Within forty eight (48) months from effective date of the permit	Within forty eight (48) months from effective date of the permit	Within forty eight (48) months from effective date of the permit
Ensure appropriate implementation of structural controls as required in Part I.D.5.b.(ii).(c) and Part I.D.5.b.(ii).(d)	Ten (10) months from effective date of permit	One (1) year from effective date of permit	Two (2) years from effective date of permit	Two (2) years from effective date of permit	Thirty (30) months from effective date of permit
Develop procedures as required in Part I.D.5.b.(ii).(e), Part I.D.5.b.(ii).(f), Part I.D.5.b.(ii).(g), and Part I.D.5.b.(ii).(h)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	One (1) year from effective date of permit	One (1) year from effective date of permit	Eighteen (18) months from effective date of permit

Coordinate internally with all departments and boards with jurisdiction over the planning, review, permitting, or approval of public and private construction projects/activities within the permit area as required in Part I.D.5.b.(iii)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	Eleven (11) months from effective date of permit	Eleven (11) months from effective date of permit	One (1) year from effective date of permit
As required in Part I.D.5.b.(iv), the permittee must assess all existing codes, ordinances, planning documents and other applicable regulations, for impediments to the use of GI/LID/Sustainable practices	Ten (10) months from effective date of permit	One (1) year from effective date of permit	Eighteen (18) months from effective date of permit	Eighteen (18) months from effective date of permit	Two (2) years from effective date of permit
As required in Part I.D.5.b.(iv), develop and submit a report of the assessment findings on GI/LID/Sustainable practices.	Eleven (11) months from effective date of permit	Eighteen (18) months from effective date of permit	Two (2) years from effective date of permit	Two (2) years from effective date of permit	Twenty seven (27) months from effective date of permit
Estimation of the number of acres of IA and DCIA as required in Part I.D.5.b.(vi)	Ten (10) months from effective date of permit	One (1) year from effective date of permit	Two (2) years from effective date of permit	Two (2) years from effective date of permit	Thirty (30) months from effective date of permit
Inventory and priority ranking as required in section in Part I.D.5.b.(vii)	Within fifteen (15) months from effective date of the permit	Within twenty four (24) months from effective date of the permit	Within thirty six (36) months from effective date of the permit	Within thirty six (36) months from effective date of the permit	Within forty two (42) months from effective date of the permit
Incorporate watershed protection elements as required in Part I.D.5.b.(viii)	Ten (10) months from effective date of permit	One (1) year from effective date of permit	Two (2) years from effective date of permit	Two (2) years from effective date of permit	Thirty (30) months from effective date of permit
Update the SWMP document and annual report as required in Part I.D.5.b.(ix) and Part I.D.5.b.(x).	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary
Enhance the program to include program elements in Part I.D.5.b.(xi) and Part I.D.5.b.(xii)	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary

(*) During development of cooperative programs, the permittee must continue to implement existing programs.

(**) or MS4s designated by the Director

Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

c. Pollution Prevention/Good Housekeeping for Municipal/Co-permittee Operations.

- (i) The permittee must develop, revise and implement an operation and maintenance program that includes a training component and the ultimate goal of preventing or reducing pollutant runoff from municipal operations. **Permittees previously covered under NMS000101 or NMR040000 must continue existing programs while updating those programs, as necessary, to comply with the requirements of this permit.** The program must include:
- (a) Development and implementation of an employee training program to incorporate pollution prevention and good housekeeping techniques into everyday operations and maintenance activities. The employee training program must be designed to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance. The permittee must also develop a tracking procedure and ensure that employee turnover is considered when determining frequency of training;
 - (b) Maintenance activities, maintenance schedules, and long term inspections procedures for structural and non-structural storm water controls to reduce floatable, trash, and other pollutants discharged from the MS4.
 - (c) Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, fleet or maintenance shops with outdoor storage areas, salt/sand storage locations, snow disposal areas operated by the permittee, and waste transfer stations;
 - (d) Procedures for properly disposing of waste removed from the separate storm sewers and areas listed in Part I.D.5.c.(i).(c) (such as dredge spoil, accumulated sediments, floatables, and other debris); and
 - (e) Procedures to ensure that new flood management projects assess the impacts on water quality and examine existing projects for incorporating additional water quality protection devices or practices.

Note: The permittee may use training materials that are available from EPA, NMED, Tribe, or other organizations.

(ii) The Pollution Prevention/Good Housekeeping program must include the following elements:

- (a) Develop or update the existing list of all stormwater quality facilities by drainage basin, including location and description;
- (b) Develop or modify existing operational manual for de-icing activities addressing alternate materials and methods to control impacts to stormwater quality;
- (c) Develop or modify existing program to control pollution in stormwater runoff from equipment and vehicle maintenance yards and maintenance center operations located within the MS4;
- (d) Develop or modify existing street sweeping program. Assess possible benefits from changing frequency or timing of sweeping activities or utilizing different equipment for sweeping activities;
- (e) A description of procedures used by permittees to target roadway areas most likely to contribute pollutants to and from the MS4 (i.e., runoff discharges directly to sensitive receiving water, roadway receives majority of de-icing material, roadway receives excess litter, roadway receives greater loads of oil and grease);
- (f) Develop or revise existing standard operating procedures for collection of used motor vehicle fluids (at a minimum oil and antifreeze) and toxics (including paint, solvents, fertilizers, pesticides, herbicides,

- and other hazardous materials) used in permittee operations or discarded in the MS4, for recycle, reuse, or proper disposal;
- (g) Develop or revised existing standard operating procedures for the disposal of accumulated sediments, floatables, and other debris collected from the MS4 and during permittee operations to ensure proper disposal;
 - (h) Develop or revised existing litter source control programs to include public awareness campaigns targeting the permittee audience; and
 - (i) Develop or review and revise, as necessary, the criteria, procedures and schedule to evaluate existing flood control devices, structures and drainage ways to assess the potential of retrofitting to provide additional pollutant removal from stormwater. Implement routine review to ensure new and/or innovative practices are implemented where applicable.
 - (j) Enhance inspection and maintenance programs by coordinating with maintenance personnel to ensure that a target number of structures per basin are inspected and maintained per quarter;
 - (k) Enhance the existing program to control the discharge of floatables and trash from the MS4 by implementing source control of floatables in industrial and commercial areas;
 - (l) Include in each annual report, a cumulative summary of retrofit evaluations conducted during the permit term on existing flood control devices, structures and drainage ways to benefit water quality. Update the SWMP to include a schedule (with priorities) for identified retrofit projects;
 - (m) Flood management projects: review and revise, as necessary, technical criteria guidance documents and program for the assessment of water quality impacts and incorporation of water quality controls into future flood control projects. The criteria guidance document must include the following elements:
 - A. Describe how new flood control projects are assessed for water quality impacts.
 - B. Provide citations and descriptions of design standards that ensure water quality controls are incorporated in future flood control projects.
 - C. Include method for permittees to update standards with new and/or innovative practices.
 - D. Describe master planning and project planning procedures and design review procedures.
 - (n) Develop procedures to control the discharge of pollutants related to the storage and application of pesticides, herbicides, and fertilizers applied, by the permittee's employees or contractors, to public right-of-ways, parks, and other municipal property. The permittee must provide an updated description of the data monitoring system for all permittee departments utilizing pesticides, herbicides and fertilizers.
- (iii) Comply with the requirements included in the EPA Multi Sector General Permit (MSGP) to control runoff from industrial facilities (as defined in 40 CFR 122.26(b)(14)(i)-(ix) and (xi)) owned or operated by the permittees and ultimately discharge to the MS4. The permittees must develop or update:
- (a) A list of municipal/permittee operations impacted by this program,
 - (b) A map showing the industrial facilities owned and operated by the MS4,
 - (c) A list of the industrial facilities (other than large construction activities defined as industrial activity) that will be included in the industrial runoff control program by category and by basin. The list must include the permit authorization number or a MSGP NOI ID for each facility as applicable.

- (iv) The permittee must include in the SWMP a description of the mechanism(s) utilized to comply with each of the elements required in Part I.D.5.c.(i) throughout Part I.D.5.c.(iii) and its corresponding measurable goal.
- (v) The permittee shall assess the overall success of the program, and document the program effectiveness in the annual report.

Table 4. Pollution Prevention/Good Housekeeping for Municipal/Co-permittee Operations - Program Development and Implementation Schedules

Activity	Permittee Class				
	A Phase I MS4s	B Phase II MS4s (2000 Census)	C New Phase II MS4s (2010 Census **)	D MS4s within Indian Lands	Cooperative (*) Any Permittee with cooperative programs
-Develop or update the Pollution Prevention/Good House Keeping program to include the elements in Part I.D.5.c.(i)	Ten (10) months from effective date of the permit	Twelve (12) months from effective date of the permit	Fourteen (14) months from effective date of the permit	Fourteen (14) months from effective date of the permit	Eighteen (18) months from effective date of the permit
-Enhance the program to include the elements in Part I.D.5.c.(ii)	Ten (10) months from effective date of the permit	One (1) year from effective date of the permit	Two (2) years from effective date of the permit	Two (2) years from effective date of the permit	Thirty (30) months from effective date of the permit
-Develop or update a list and a map of industrial facilities owned or operated by the permittee as required in Part I.D.5.c.(iii)	Ten (10) months from effective date of the permit	Eleven (11) months from effective date of the permit	One (1) year from effective date of the permit	One (1) year from effective date of the permit	Eighteen (18) months from effective date of the permit
Update the SWMP document and annual report as required in Part I.D.5.c.(iv) and Part I.D.5.c.(v)	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary

(*) During development of cooperative programs, the permittee must continue to implement existing programs (***) or MS4s designated by the Director

Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

d. Industrial and High Risk Runoff (Applicable only to Class A permittees)

- (i) The permittee must control through ordinance, permit, contract, order or similar means, the contribution of pollutants to the municipal storm sewer by storm water discharges associated with industrial activity and the quality of storm water discharged from sites of industrial activity as defined in 40 CFR 122.26(b)(14)(i)-(ix) and (xi). If no such industrial activities are in a permittees jurisdiction, that permittee may certify that this program element does not apply.
- (ii) The permittee must continue implementation and enforcement of the Industrial and High Risk Runoff program, assess the overall success of the program, and document both direct and indirect measurements of program effectiveness in the annual report. The program shall include:
 - (a) A description of a program to identify, monitor, and control pollutants in stormwater discharges to the MS4 from municipal landfills; other treatment, storage, or disposal facilities for municipal waste (e.g. transfer stations, incinerators, etc.); hazardous waste treatment, storage, disposal and recovery facilities; facilities that are subject to EPCRA Title III, Section 313; and any other industrial or commercial discharge the permittee(s) determines are contributing a substantial pollutant loading to the

MS4. (Note: If no such facilities are in a permittees jurisdiction, that permittee may certify that this program element does not apply.); and

- (b) Priorities and procedures for inspections and establishing and implementing control measures for such discharges.
- (iii) Permittees must comply with the monitoring requirements specified in Part III.A.4;
- (iv) The permittee must modify the following as necessary:
 - (a) The list of the facilities included in the program, by category and basin;
 - (b) Schedules and frequency of inspection for listed facilities. Facility inspections may be carried out in conjunction with other municipal programs (e.g. pretreatment inspections of industrial users, health inspections, fire inspections, etc.), but must include random inspections for facilities not normally visited by the municipality;
 - (c) The priorities for inspections and procedures used during inspections (e.g. inspection checklist, review for NPDES permit coverage; review of stormwater pollution prevention plan; etc.); and
 - (d) Monitoring frequency, parameters and entity performing monitoring and analyses (MS4 permittees or subject facility). The monitoring program may include a waiver of monitoring for parameters at individual facilities based on a "no-exposure" certification;
- (v) The permittee must include in the SWMP a description of the mechanism(s) utilized to comply with each of the elements required in Part I.D.5.d.(i) throughout Part I.D.5.d.(iv) and its corresponding measurable goal.
- (vi) The permittee shall assess the overall success of the program, and document the program effectiveness in the annual report.

Program Flexibility Elements:

(vii) The permittee may:

- (a) Use analytical monitoring data, on a parameter-by-parameter basis, that a facility has collected to comply with or apply for a State or NPDES discharge permit (other than this permit), so as to avoid unnecessary cost and duplication of effort;
- (b) Allow the facility to test only one (1) outfall and to report that the quantitative data also apply to the substantially identical outfalls if:
 - A. A Type 1 or Type 2 industrial facility has two (2) or more outfalls with substantially identical effluents, and
 - B. Demonstration by the facility that the stormwater outfalls are substantially identical, using one (1) or all of the following methods for such demonstration. The NPDES Stormwater Sampling Guidance Document (EPA 833-B-92-001), available on EPA's website at [epa.gov](#) provides detailed guidance on each of the three options: (1) submission of a narrative description and a site map; (2) submission of matrices; or (3) submission of model matrices.
- (c) Accept a copy of a "no exposure" certification from a facility made to EPA under 40 CFR §122.26(g), in lieu of analytic monitoring.

Table 5: Industrial and High Risk Runoff - Program Development and Implementation Schedules:

Activity	Permittee Class	
	A Phase I MS4s	Cooperative (*) Any Permittee with cooperative programs
Ordinance (or other control method) as required in Part I.D.5.d.(i)	Ten (10) months from effective date of the permit	Twelve (12) months from effective date of the permit
Continue implementation and enforcement of the Industrial and High Risk Runoff program, assess the overall success of the program, and document both direct and indirect measurements of program effectiveness in the annual report as required in Part I.D.5.d.(ii)	Ten (10) months from effective date of the permit	Twelve (12) months from effective date of the permit
Meet the monitoring requirements in Part I.D.5.d.(iii)	Ten (10) months from effective date of the permit	Twelve (12) months from effective date of the permit
Include requirements in Part I.D.5.d.(iv)	Ten (10) months from permit effective date of the permit	Twelve (12) months from effective date of the permit
Update the SWMP document and annual report as required in Part I.D.5.d.(v) and Part I.D.5.d.(vi)	Update as necessary	Update as necessary
Enhance the program to include requirements in Part I.D.5.d.(vii)	Update as necessary	Update as necessary

(*) During development of cooperative programs, the permittee must continue to implement existing programs.
Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

e. Illicit Discharges and Improper Disposal

- (i) The permittee shall develop, revise, implement, and enforce a program to detect and eliminate illicit discharges (as defined at 40 CFR 122.26(b)(2)) entering the MS4. **Permittees previously covered under NMS000101 or NMR040000 must continue existing programs while updating those programs, as necessary, to comply with the requirements of this permit.** The permittee must:
 - (a) Develop, if not already completed, a storm sewer system map, showing the names and locations of all outfalls as well as the names and locations of all waters of the United States that receive discharges from those outfalls. Identify all discharge points into major drainage channels draining more than twenty (20) percent of the MS4 area;
 - (b) To the extent allowable under State, Tribal or local law, effectively prohibit, through ordinance or other regulatory mechanism, non-stormwater discharges into the MS4, and implement appropriate enforcement procedures and actions;
 - (c) Develop and implement a plan to detect and address non-stormwater discharges, including illegal dumping, to the MS4. The permittee must include the following elements in the plan:
 - A. Procedures for locating priority areas likely to have illicit discharges including field test for selected pollutant indicators (ammonia, boron, chlorine, color, conductivity, detergents, *E. coli*, enterococci, total coliform, fluoride, hardness, pH, potassium, conductivity, surfactants), and visually screening outfalls during dry weather;

- B. Procedures for enforcement, including enforcement escalation procedures for recalcitrant or repeat offenders;
 - C. Procedures for removing the source of the discharge;
 - D. Procedures for program evaluation and assessment; and
 - E. Procedures for coordination with adjacent municipalities and/or state, tribal, or federal regulatory agencies to address situations where investigations indicate the illicit discharge originates outside the MS4 jurisdiction.
- (d) Develop an education program to promote, publicize, and facilitate public reporting of illicit connections or discharges, and distribution of outreach materials. The permittee shall inform public employees, businesses and the general public of hazards associated with illegal discharges and improper disposal of waste.
 - (e) Establish a hotline to address complaints from the public.
 - (f) Investigate suspected significant/severe illicit discharges within forty-eight (48) hours of detection and all other discharges as soon as practicable; elimination of such discharges as expeditiously as possible; and, requirement of immediate cessation of illicit discharges upon confirmation of responsible parties.
 - (g) Review complaint records for the last permit term and develop a targeted source reduction program for those illicit discharge/improper disposal incidents that have occurred more than twice in two (2) or more years from different locations. (Applicable only to class A and B permittees)
 - (h) If applicable, implement the program using the priority ranking develop during last permit term
- (ii) The permittee shall address the following categories of non-stormwater discharges or flows (e.g., illicit discharges) only if they are identified as significant contributors of pollutants to the MS4: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(90)), uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, and street wash water.
- Note:* Discharges or flows from fire fighting activities are excluded from the effective prohibitions against non-stormwater and need only be addressed where they are identified a significant sources of pollutants to water of the United States).
- (iii) The permittee must screen the entire jurisdiction at least once every five (5) years and high priority areas at least once every year. High priority areas include any area where there is ongoing evidence of illicit discharges or dumping, or where there are citizen complaints on more than five (5) separate events within twelve (12) months. The permittee must:
- (a) Include in its SWMP document a description of the means, methods, quality assurance and controls protocols, and schedule for successfully implementing the required screening, field monitoring, laboratory analysis, investigations, and analysis evaluation of data collected.
 - (b) Comply with the dry weather screening program established in Table 6 and the monitoring requirements specified in Part III.A.2.
 - (c) If applicable, implement the priority ranking system develop in previous permit term.

- (iv) **Waste Collection Programs:** The permittee must develop, update, and implement programs to collect used motor vehicle fluids (at a minimum, oil and antifreeze) for recycle, reuse, or proper disposal, and to collect household hazardous waste materials (including paint, solvents, fertilizers, pesticides, herbicides, and other hazardous materials) for recycle, reuse, or proper disposal. Where available, collection programs operated by third parties may be a component of the programs. Permittees shall enhance these programs by establishing the following elements as a goal in the SWMP:
- A. Increasing the frequency of the collection days hosted;
 - B. Expanding the program to include commercial fats, oils and greases; and
 - C. Coordinating program efforts between applicable permittee departments.
- (v) **Spill Prevention and Response.** The permittee must develop, update and implement a program to prevent, contain, and respond to spills that may discharge into the MS4. The permittees must continue existing programs while updating those programs, as necessary, to comply with the requirements of this permit. The Spill Prevention and Response program shall include:
- (a) Where discharge of material resulting from a spill is necessary to prevent loss of life, personal injury, or severe property damage, the permittee(s) shall take, or insure the party responsible for the spill takes, all reasonable steps to control or prevent any adverse effects to human health or the environment: and
 - (b) The spill response program may include a combination of spill response actions by the permittee (and/or another public or private entity), and legal requirements for private entities within the permittee's municipal jurisdiction.
- (vi) The permittee must include in the SWMP a description of the mechanism(s) utilized to comply with each of the elements required in Part I.D.5.e.(i) throughout Part I.D.5.e.(v) and its corresponding measurable goal. A description of the means, methods, quality assurance and controls protocols, and schedule for successfully implementing the required screening, field monitoring, laboratory analysis, investigations, and analysis evaluation of data collected
- (vii) The permittee shall assess the overall success of the program, and document the program effectiveness in the annual report.
- (viii) The permittee must expeditiously revise as necessary, within nine (9) months from the effective date of the permit, the existing permitting/certification program to ensure that any entity applying for the use of Right of Way implements controls in their construction and maintenance procedures to control pollutants entering the MS4. (Only applicable to NMDOT)

Program Flexibility Elements

- (ix) The permittee may:
- (a) Divide the jurisdiction into assessment areas where monitoring at fewer locations would still provide sufficient information to determine the presence or absence of illicit discharges within the larger area;
 - (b) Downgrade high priority areas after the area has been screened at least once and there are citizen complaints on no more than five (5) separate events within a twelve (12) month period;
 - (c) Rely on a cooperative program with other MS4s for detection and elimination of illicit discharges and illegal dumping;

- (d) If participating in a cooperative program with other MS4s, required detection program frequencies may be based on the combined jurisdictional area rather than individual jurisdictional areas and may use assessment areas crossing jurisdictional boundaries to reduce total number of screening locations (e.g., a shared single screening location that would provide information on more than one jurisdiction); and
- (e) After screening a non-high priority area once, adopt an “in response to complaints only” IDDE for that area provided there are citizen complaints on no more than two (2) separate events within a twelve (12) month period.
- (f) Enhance the program to utilize procedures and methodologies consistent with those described in “Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments.”

Table 6. Illicit Discharges and Improper Disposal - Program Development and Implementation Schedules

Activity	Permittee Class				
	A Phase I MS4s	B Phase II MS4s (2000 Census)	C New Phase II MS4s (2010 Census ***)	D MS4s within Indian Lands	Cooperative (*) Any Permittee with cooperative programs
Mapping as required in Part I.D.5.e.(i)(a)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	Eleven (11) months from effective date of permit	Eleven (11) months from effective date of permit	Fourteen (14) months from effective date of permit
Ordinance (or other control method) as required in Part I.D.5.e.(i)(b)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	Two (2) years from effective date of permit	Two (2) years from effective date of permit	Thirty (30) months from effective date of permit
Develop and implement a IDDE plan as required in Part I.D.5.e.(i)(c)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	Two (2) years from effective date of permit	Two (2) years from effective date of permit	Thirty (30) months from effective date of permit
Develop an education program as required in Part I.D.5.e.(i)(d)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	One (1) year from effective date of permit	One (1) year from effective date of permit	Eighteen (18) months from effective date of permit
Establish a hotline as required in Part I.D.5.e.(i)(e)	Update as necessary	Ten (10) months from effective date of permit	One (1) year from effective date of permit	One (1) year from effective date of permit	Eighteen (18) months from effective date of permit
Investigate suspected significant/severe illicit discharges as required in Part I.D.5.e.(i)(f)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	One (1) year from effective date of permit	One (1) year from effective date of permit	Eighteen (18) months from effective date of permit
Review complaint records and develop a targeted source reduction program as required in Part I.D.5.e.(i)(g)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	N/A	N/A	One (1) year from effective date of permit

Screening of system as required in Part I.D.5.e.(iii) as follows:	1 / year	1 / year	1 / year	1 / year	1 / year
a.) High priority areas**					
b.) Whole system	-Screen 20% of the MS4 per year	- Screen 20% of the MS4 per year	-Years 1 – 2: develop procedures as required in Part I.D.5.e.(i)(c) -Year 3: screen 30% of the MS4 -Year 4: screen 20% of the MS4 -Year 5: screen 50% of the MS4	-Years 1 – 2: develop procedures as required Part I.D.5.e.(i)(c) -Year 3: screen 30% of the MS4 -Year 4: screen 20% of the MS4 -Year 5: screen 50% of the MS4	-Years 1 – 3: develop procedures as require in Part I.D.5.e.(i)(c) -Year 4: screen 30% of the MS4 -Year 5: screen 70% of the MS4
Develop, update, and implement a Waste Collection Program as required in Part I.D.5.e.(iv)	Ten (10) months from effective date of permit	Eighteen (18) months from effective date of permit	Two (2) years from effective date of permit	Two (2) years from effective date of permit	Thirty (30) months from effective date of permit
Develop, update and implement a Spill Prevention and Response program to prevent, contain, and respond to spills that may discharge into the MS4 as required in Part I.D.5.e.(v)	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	One (1) year from effective date of permit	One (1) year from effective date of permit	Eighteen (18) months from effective date of permit
Update the SWMP document and annual report as required in Part I.D.5.e.(iii), Part I.D.5.e.(vi), and Part I.D.5.e.(vii).	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary
Enhance the program to include requirements in Part I.D.5.e.(ix)	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary

(*) During development of cooperative programs, the permittee must continue to implement existing programs.

(**) High priority areas include any area where there is ongoing evidence of illicit discharges or dumping, or where there are citizen complaints on more than five (5) separate events within twelve (12) months

(***) or MS4s designated by the Director

Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

f. Control of Floatables Discharges

- (i) The permittee must develop, update, and implement a program to address and control floatables in discharges into the MS4. The floatables control program shall include source controls and, where necessary, structural controls. **Permittees previously covered under NMS000101 or NMR040000 must continue existing programs while updating those programs, as necessary, to comply with the requirements of this permit.** The following elements must be included in the program:

- (a) Develop a schedule for implementation of the program to control floatables in discharges into the MS4 (Note: AMAFCA and the City of Albuquerque should update the schedule according to the findings of the 2005 AMAFCA/COA Floatable and Gross Pollutant Study and other studies); and
 - (b) Estimate the annual volume of floatables and trash removed from each control facility and characterize the floatable type.
- (ii) The permittee must include in the SWMP a description of the mechanism(s) utilized to comply with each of the elements required in Part I.D.5.f.(i).
- (iii) The permittee shall assess the overall success of the program, and document the program effectiveness in the annual report.

Table 7. Control of Floatables Discharges - Program Development and Implementation Schedules

Activity	Permittee Class				
	A Phase I MS4s	B Phase II MS4s (2000 Census)	C New Phase II MS4s (2010 Census **)	D MS4s within Indian Lands	Cooperative (*) Any Permittee with cooperative programs
- Develop a schedule to implement the program as required in Part I.D.5.f.(i)(a)	Ten (10) months from the effective date of the permit	Ten (10) months from the effective date of the permit	One (1) year from the effective date of the permit	One (1) year from the effective date of the permit	Eighteen (18) months from the effective date of the permit
-Estimate the annual volume of floatables and trash removed from each control facility and characterize the floatable type as required in Part I.D.5.f.(i)(b)	Ten (10) months from the effective date of the permit	One (1) year from the effective date of the permit	Two (2) years from the effective date of the permit	Two (2) years from the effective date of the permit	Thirty (30) months from the effective date of the permit
Update the SWMP document and annual report as required in Part I.D.5.f.(ii) and Part I.D.5.f.(iii).	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary

(*) During development of cooperative programs, the permittee must continue to implement existing programs.

(**) or MS4s designated by the Director

Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

g. Public Education and Outreach on Stormwater Impacts

- (i) The permittee shall, individually or cooperatively, develop, revise, implement, and maintain a comprehensive stormwater program to educate the community, employees, businesses, and the general public of hazards associated with the illegal discharges and improper disposal of waste and about the impact that stormwater discharges on local waterways, as well as the steps that the public can take to reduce pollutants in stormwater. **Permittees previously covered under NMS000101 and NMR040000 must continue existing programs while updating those programs, as necessary, to comply with the requirements of this permit.**
- (ii) The permittee must implement a public education program to distribute educational knowledge to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff. The permittee must:

- (a) Define the goals and objectives of the program based on high priority community-wide issues;
 - (b) Develop or utilize appropriate educational materials, such as printed materials, billboard and mass transit advertisements, signage at select locations, radio advertisements, television advertisements, and websites;
 - (c) Inform individuals and households about ensuring proper septic system maintenance, ensuring the proper use and disposal of landscape and garden chemicals including fertilizers and pesticides, protecting and restoring riparian vegetation, and properly disposing of used motor oil or household hazardous wastes;
 - (d) Inform individuals and groups how to become involved in local stream and beach restoration activities as well as activities that are coordinated by youth service and conservation corps or other citizen groups;
 - (e) Use tailored public education program, using a mix of locally appropriate strategies, to target specific audiences and communities. Examples of strategies include distributing brochures or fact sheets, sponsoring speaking engagements before community groups, providing public service announcements, implementing educational programs targeted at school age children, and conducting community-based projects such as storm drain stenciling, and watershed cleanups; and
 - (f) Use materials or outreach programs directed toward targeted groups of commercial, industrial, and institutional entities likely to have significant stormwater impacts. For example, providing information to restaurants on the impact of grease clogging storm drains and to garages on the impact of oil discharges. The permittee may tailor the outreach program to address the viewpoints and concerns of all communities, particularly minority and disadvantaged communities, as well as any special concerns relating to children. The permittee must make information available for non-English speaking residents, where appropriate.
- (iii) The permittee must include the following information in the Stormwater Management Program (SWMP) document:
- (a) A description of a program to promote, publicize, facilitate public reporting of the presence of illicit discharges or water quality associated with discharges from municipal separate storm sewers;
 - (b) A description of the education activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials; and
 - (c) A description of the mechanism(s) utilized to comply with each of the elements required in Part I.D.5.g.(i) and Part I.D.5.g.(ii) and its corresponding measurable goal.
- (iv) The permittee must assess the overall success of the program, and document both direct and indirect measurements of program effectiveness in the Annual Report.

Program Flexibility Elements

- (v) Where necessary to comply with the Minimum Control Measures established in Part I.D.5.g.(i) and Part I.D.5.g.(ii), the permittee should develop a program or modify/revise an existing education and outreach program to:
 - (a) Promote, publicize, and facilitate the use of Green Infrastructure (GI)/Low Impact Development (LID)/Sustainability practices; and
 - (b) Include an integrated public education program (including all permittee departments and programs within the MS4) regarding litter reduction, reduction in pesticide/herbicide use, recycling and proper

disposal (including yard waste, hazardous waste materials, and used motor vehicle fluids), and GI/LID/Sustainable practices (including xeriscaping, reduced water consumption, water harvesting practices allowed by the New Mexico State Engineer Office).

- (vi) The permittee may collaborate or partner with other MS4 operators to maximize the program and cost effectiveness of the required outreach.
- (vii) The education and outreach program may use citizen hotlines as a low-cost strategy to engage the public in illicit discharge surveillance.
- (viii) The permittee may use stormwater educational materials provided by the State, Tribe, EPA, environmental, public interest or trade organizations, or other MS4s. The permittee may also integrate the education and outreach program with existing education and outreach programs in the Middle Rio Grande area. Example of existing programs include:
 - (a) Classroom education on stormwater;
 - A. Develop watershed map to help students visualize area impacted.
 - B. Develop pet-specific education
 - (b) Establish a water committee/advisor group;
 - (c) Contribute and participate in Stormwater Quality Team;
 - (d) Education/outreach for commercial activities;
 - (e) Hold regular employee trainings with industry groups
 - (f) Education of lawn and garden activities;
 - (g) Education on sustainable practices;
 - (h) Education/outreach of pet waste management;
 - (i) Education on the proper disposal of household hazardous waste;
 - (j) Education/outreach programs aimed at minority and disadvantaged communities and children;
 - (k) Education/outreach of trash management;
 - (l) Education/outreach in public events;
 - A. Participate in local events—brochures, posters, etc.
 - B. Participate in regional events (i.e., State Fair, Balloon Fiesta).
 - (m) Education/outreach using the media (e.g. publish local newsletters);
 - (n) Education/outreach on water conservation practices designed to reduce pollutants in storm water for home residences.

Table 8. Public Education and Outreach on Stormwater Impacts - Program Development and Implementation Schedules

Activity	Permittee Class				
	A Phase I MS4s	B Phase II MS4s (2000 Census)	C New Phase II MS4s (2010 Census **)	D MS4s within Indian Lands	Cooperative (*) Any Permittee with cooperative programs
Develop, revise, implement, and maintain an education and outreach program as required in Part I.D.5.g.(i) and Part I.D.5.g.(ii)	Ten (10) months from the effective date of the permit	Eleven (11) months from the effective date of the permit	Twelve (12) months from effective date of the permit	Twelve (12) months from effective date of the permit	Fourteen (14) months from effective date of the permit
Update the SWMP document and annual report as required in Part I.D.5.g.(iii) and Part I.D.5.g.(iv)	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary
Enhance the program to include requirements in Part I.D.5.g.(v) through Part I.D.5.g.(viii)	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary

(*) During development of cooperative programs, the permittee must continue to implement existing programs.

(**) or MS4s designated by the Director

Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

h. Public Involvement and Participation

- (i) The permittee must provide local public notice of and make available for public review a copy of the complete NOI and attachments (see Part I.B.2). Local public notice may be made by newspaper notice, notice at a council meeting, posting on the internet, or other method consistent with state/tribal/local public notice requirements.

The permittee must consider all public comments received during the public notice period and modify the NOI, or include a schedule to modify the SWMP, as necessary, or as required by the Director modify the NOI or/and SWMP in response to such comments. The Permittees must include in the NOI any unresolved public comments and the MS4's response to these comments. Responses provided by the MS4 will be considered as part of EPA's decision-making process. See also Appendix E Providing Comments or Requesting a Public Hearing on an Operator's NOI.

- (ii) The permittee shall develop, revise, implement and maintain a plan to encourage public involvement and provide opportunities for participation in the review, modification and implementation of the SWMP; develop and implement a process by which public comments to the plan are received and reviewed by the person(s) responsible for the SWMP; and, make the SWMP available to the public and to the operator of any MS4 or Tribal authority receiving discharges from the MS4. **Permittee previously covered under NMS000101 or NMR040000 must continue existing public involvement and participation programs while updating those programs, as necessary, to comply with the requirements of this permit.**

- (iii) The plan required in Part I.D.5.h.(ii) shall include a comprehensive planning process which involves public participation and where necessary intergovernmental coordination, to reduce the discharge of pollutants to the maximum extent practicable using management practices, control techniques and system, design and engineering methods, and such other provisions which are appropriate. The permittee must include the following elements in the plan:
 - (a) A detailed description of the general plan for informing the public of involvement and participation opportunities, including types of activities; target audiences; how interested parties may access the SWMP; and how the public was involved in development of the SWMP;
 - (b) The development and implementation of at least one (1) assessment of public behavioral change following a public education and/or participation event;
 - (c) A process to solicit involvement by environmental groups, environmental justice communities, civic organizations or other neighborhoods/organizations interested in water quality-related issues, including but not limited to the Middle Rio Grande Water Quality Work Group, the Middle Rio Grande Bosque Initiative, the Middle Rio Grande Endangered Species Act Collaborative Program, the Middle Rio Grande-Albuquerque Reach Watershed Group, the Pueblos of Santa Ana, Sandia and Isleta, Albuquerque Bernalillo County Water Utility Authority, UNM Colleges and Schools, and Chartered Student Organizations; and
 - (d) An evaluation of opportunities to utilize volunteers for stormwater pollution prevention activities and awareness throughout the area.
- (iv) The permittee shall comply with State, Tribal and local public notice requirements when implementing a public involvement/ participation program.
- (v) The public participation process must reach out to all economic and ethnic groups. Opportunities for members of the public to participate in program development and implementation include serving as citizen representatives on a local stormwater management panel, attending public hearings, working as citizen volunteers to educate other individuals about the program, assisting in program coordination with other pre-existing programs, or participating in volunteer monitoring efforts.
- (vi) The permittee must include in the SWMP a description of the mechanism(s) utilized to comply with each of the elements required in Parts I.D.5.h.(i) throughout Part I.D.5.h.(iv) and its corresponding measurable goal.
- (vii) The permittee shall assess the overall success of the program, and document the program effectiveness in the annual report.
- (viii) The permittee must provide public accessibility of the Storm Water Management Program (SWMP) document and Annual Reports online via the Internet and during normal business hours at the MS4 operator's main office, a local library, posting on the internet and/or other readily accessible location for public inspection and copying consistent with any applicable federal, state, tribal, or local open records requirements. Upon a showing of significant public interest, the MS4 operator is encouraged to hold a public meeting (or include in the agenda of in a regularly scheduled city council meeting, etc.) on the NOI, SWMP, and Annual Reports. (See Part III B)

Program Flexibility Elements

- (ix) The permittee may integrate the public Involvement and participation program with existing education and outreach programs in the Middle Rio Grande area. Example of existing programs include: Adopt-A-Stream Programs; Attitude Surveys; Community Hotlines (e.g. establishment of a "311"-type number and system established to handle storm-water-related concerns, setting up a public tracking/reporting

system, using phones and social media); Revegetation Programs; Storm Drain Stenciling Programs; Stream cleanup and Monitoring program/events.

Table 9. Public Involvement and Participation - *Program Development and Implementation Schedules*

Activity	Permittee Class				
	A Phase I MS4s	B Phase II MS4s (2000 Census)	C New Phase II MS4s (2010 Census **)	D MS4s within Indian Lands	Cooperative (*) Any Permittee with cooperative programs
Develop (or update), implement, and maintain a public involvement and participation plan as required in Part I.D.5.h.(ii) and Part I.D.5.h.(iii)	Ten (10) months from effective date of the permit	Ten (10) months from effective date of the permit	Eleven (11) months from effective date of the permit	Eleven (11) months from effective date of the permit	One (1) year from effective date of the permit
Comply with State, Tribal, and local notice requirements when implementing a Public Involvement and Participation Program as required in Part I.D.5.h.(iv)	Ten (10) months from effective date of the permit	Eleven (11) months from effective date of the permit	Twelve (12) months from effective date of the permit	Twelve (12) months from effective date of the permit	Fourteen (14) months from effective date of the permit
Include elements as required in Part I.D.5.h.(v)	Ten (10) months from effective date of the permit	Eleven (11) months from effective date of the permit	One (1) year from effective date of the permit	One (1) year from effective date of the permit	Eighteen (18) months from effective date of the permit
Update the SWMP document and annual report as required in Part I.D.5.h.(vi), Part I.D.5.h.(vii), and Part I.D.5.h.(viii)	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary
Enhance the program to include requirements in Part I.D.5.h.(ix)	Update as necessary	Update as necessary	Update as necessary	Update as necessary	Update as necessary

(*) During development of cooperative programs, the permittee must continue to implement existing programs.

(**) or MS4s designated by the Director

Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

6. Stormwater Management Program Review and Modification.

a. Program Review. Permittee shall participate in an annual review of its SWMP in conjunction with preparation of the annual report required in Part III.B. Results of the review shall be discussed in the annual report and shall include an assessment of:

- (i) SWMP implementation, progress in achieving measurable goals, and compliance with program elements and other permit conditions;
- (ii) the effectiveness of its SWMP, and any necessary modifications, in complying with the permit, including requirements to control the discharge of pollutants, and comply with water quality standards and any applicable approved TMDLs; and the adequacy of staff, funding levels, equipment, and support capabilities to fully implement the SWMP and comply with permit conditions.

- (a) Project staffing requirements, in man hours, for the implementation of the MS4 program during the upcoming year.
 - (b) Staff man hours used during the previous year for implementing the MS4 program. Man hours may be estimated based on staff assigned, assuming a forty (40) hour work week.
- b. Program Modification. The permittee(s) may modify its SWMP with prior notification or request to the EPA and NMED in accordance with this section.
 - (i) Modifications adding, but not eliminating, replacing, or jeopardizing fulfillment of any components, controls, or requirements of its SWMP may be made by the permittee(s) at any time upon written notification to the EPA.
 - (ii) Modifications replacing or eliminating an ineffective or unfeasible component, control or requirement of its SWMP, including monitoring and analysis requirements described in Parts III.A and V, may be requested in writing at any time. If request is denied, the EPA will send a written explanation of the decision. Modification requests shall include the following:
 - (a) a description of why the SWMP component is ineffective, unfeasible (including cost prohibitions), or unnecessary to support compliance with the permit;
 - (b) expectations on the effectiveness of the proposed replacement component; and
 - (c) an analysis of how the proposed replacement component is expected to achieve the goals of the component to be replaced.
 - (iii) Modifications resulting from schedules contained in Part VI may be requested following completion of an interim task or final deadline.
 - (iv) Modification requests or notifications shall be made in writing, signed in accordance with Part IV.H.
- c. Program Modifications Required by EPA. Modifications requested by EPA shall be made in writing, set forth the time schedule for the permittee(s) to develop the modifications, and offer the permittee(s) the opportunity to propose alternative program modifications to meet the objective of the requested modification. The EPA may require changes to the SWMP as needed to:
 - (i) Address impacts on receiving water quality caused, or contributed to, by discharges from the MS4;
 - (ii) Include more stringent requirements necessary to comply with new State or Federal statutory or regulatory requirements;
 - (iii) Include such other conditions deemed necessary by the EPA to comply with the goals and requirements of the Clean Water Act; or
 - (iv) If, at any time, EPA determines that the SWMP does not meet permit requirements.
- d. Transfer of Ownership, Operational Authority, or Responsibility for SWMP Implementation: The permittee(s) shall implement the SWMP:
 - (i) On all new areas added to their portion of the MS4 (or for which they become responsible for implementation of stormwater quality controls) as expeditiously as possible, but not later than one (1) year from addition of the new areas. Implementation may be accomplished in a phased manner to allow additional time for controls that cannot be implemented immediately;

- (ii) Within ninety (90) days of a transfer of ownership, operational authority, or responsibility for SWMP implementation, the permittee(s) shall have a plan for implementing the SWMP on all affected areas. The plan may include schedules for implementation; and information on all new annexed areas and any resulting updates required to the SWMP shall be submitted in the annual report.
7. **Retention of Program Records.** The permittee shall retain SWMP records developed in accordance with Part I.D, Part IV.P, and Part VI for at least five (5) years after coverage under this permit terminates.
 8. **Qualifying State, Tribal or Local Program.** The permittee may substitute the BMPs and measurable goals of an existing storm water pollution control program to qualify for compliance with one or more of the minimum control measures if the existing measure meets the requirements of the minimum control measure as established in Part I.D.5

PART II. NUMERIC DISCHARGE LIMITATIONS

A. DISCHARGE LIMITATIONS. Reserved

PART III. MONITORING, ASSESSMENT, AND REPORTING REQUIREMENTS:

A. MONITORING AND ASSESSMENT

The permittee must develop, in consultation with NMED and EPA (and affected Tribes if monitoring locations would be located on Tribal lands), and implement a comprehensive monitoring and assessment program designed to meet the following objectives:

- Assess compliance with this permit;
- Assess the effectiveness of the permittee's stormwater management program;
- Assess the impacts to receiving waters resulting from stormwater discharges;
- Characterize stormwater discharges;
- Identify sources of elevated pollutant loads and specific pollutants;
- Detect and eliminate illicit discharges and illegal connections to the MS4; and
- Assess the overall health and evaluate long-term trends in receiving water quality.

The permittee shall select specific monitoring locations sufficient to assess effects of storm water discharges on receiving waters. The monitoring program may take advantage of monitoring stations/efforts utilized by the permittees or others in previous stormwater monitoring programs or other water quality monitoring efforts. Data collected by others at such stations may be used to satisfy part, or all, of the permit monitoring requirements provided the data collection by that party meets the requirements established in Part III.A.1 throughout Part III.A.5. The comprehensive monitoring and assessment program shall be described in the SWMP document and the results must be provided in each annual report.

Implementation of the comprehensive monitoring and assessment program may be achieved through participation with other permittees to satisfy the requirements of Part III.A.1 throughout Part III.A.5 below in lieu of creating duplicate program elements for each individual permittee.

1. **Wet Weather Monitoring:** The permittees shall conduct wet weather monitoring to gather information on the response of receiving waters to wet weather discharges from the MS4 during both wet season (July 1 through October 31) and dry Season (November 1 through June 30). Wet Weather Monitoring shall be conducted at outfalls, internal sampling stations, and/or in-stream monitoring locations at each water of the US that runs in each entity or entities' jurisdiction(s). Permittees may choose either Option A or Option B below:
 - a. *Option A:* Individual monitoring
 - (i) Class A: Perform wet weather monitoring at a location coming into the MS4 jurisdictional area (upstream) and leaving the MS4 jurisdictional area (downstream), see Appendix D. Monitor for TSS, TDS, COD, BOD₅, DO, oil and grease, *E.coli*, pH, total kjeldahl nitrogen, nitrate plus nitrite, dissolved phosphorus, total ammonia plus organic nitrogen, total phosphorus, PCBs and gross alpha. Monitoring of temperature shall be also conducted at outfalls and/or Rio Grande monitoring locations. Phase I permittees must include additional parameters from monitoring conducted under permit NMS000101 (from last 10 years) whose mean values are at or above a WQS. Permittee must sample these pollutants a minimum of 10 events during the permit term with at least 5 events in wet season and 4 events in dry season.
 - (ii) Class B, C, and D: Perform wet weather monitoring at a location coming into the MS4 jurisdictional area (upstream) and leaving the MS4 jurisdictional area (downstream), see Appendix D. Monitor for TSS, TDS, COD, BOD₅, DO, oil and grease, *E.coli*, pH, total kjeldahl nitrogen, nitrate plus nitrite, dissolved phosphorus, total ammonia plus organic nitrogen, total phosphorus, PCBs and gross alpha. Monitoring of temperature shall be also

conducted at outfalls and/or Rio Grande monitoring locations. If applicable, include additional parameters from monitoring conducted under permits NMR040000 or/and NMR040001 whose mean values are at or above a WQS; sample these pollutants a minimum of 8 events per location during the permit term with at least 4 events in wet season and 2 events in dry season.

b. *Option B: Cooperative Monitoring Program*

Develop a cooperative wet weather monitoring program with other permittees in the Middle Rio Grande watershed (see map in Appendix A). The program will monitor waters coming into the watershed (upstream) and leaving the watershed (downstream), see suggested sampling locations in Appendix D. The program must include sampling for TSS, TDS, COD, BOD5, DO, oil and grease, *E. coli*, pH, total kjeldahl nitrogen, nitrate plus nitrite, dissolved phosphorus, total ammonia plus organic nitrogen, total phosphorus, PCBs and Gross alpha. Monitoring of temperature shall be also conducted at outfalls and/or Rio Grande monitoring locations. Permittees must include additional parameters from monitoring conducted under permits NMS000101, NMR040000 or/and NMR040001 whose mean values are at or above a WQS. The monitoring program must sample the pollutants for a minimum of 7 storm events per location during the permit term with at least 3 events wet season and 2 events in dry season.

Note: Seasonal monitoring periods are: Wet Season: July 1 through October 31; Dry Season: November 1 through June 30.

- c. Wet weather monitoring shall be performed only when the predicted (or actual) rainfall magnitude of a storm event is greater than 0.25 inches and an antecedent dry period of at least forty-eight (48) hours after a rain event greater than 0.1 inch in magnitude is satisfied. Monitoring methodology will consist of collecting a minimum of four (4) grab samples spaced at a minimum interval of fifteen (15) minutes each (or a flow weighted automatic composite, see Part III.A.5.a.(i)). Individual grab samples shall be preserved and delivered to the laboratory where samples will be combined into a single composite sample from each monitoring location.
- d. Monitoring methodology at each MS4 monitoring location shall be collected during any portion of the monitoring location's discharge hydrograph (i.e. first flush, rising limb, peak, and falling limb) after a discernible increase in flow at the tributary inlet.
- e. The permittee must comply with the schedules contained in Table 10. The results of the Wet Weather Monitoring must be provided in each annual report.
- f. DO, pH, conductivity, and temperature shall be analyzed in the field within fifteen (15) minutes of sample collection.
- g. Alternate wet weather monitoring locations established in Part III.A.1.a or Part III.A.1.b may be substituted for just cause during the term of the permit. Requests for approval of alternate monitoring locations shall be made to the EPA and NMED in writing and include the rationale for the requested monitoring station relocation. Unless disapproved by the EPA, use of an alternate monitoring location (except for those with numeric effluent limitations) may commence thirty (30) days from the date of the request. For monitoring locations where numeric effluent limitations have been established, the permit must be modified prior to substitution of alternate monitoring locations. At least six (6) samples shall be collected during the first year of monitoring at substitute monitoring locations. If there are less than six sampleable events, this should be document for reporting purposes.

- h. Response to monitoring results: The monitoring program must include a contingency plan for collecting additional monitoring data within the MS4 or at additional appropriate instream locations should monitoring results indicate that MS4 discharges may be contributing to instream exceedances of WQS. The purpose of this additional monitoring effort would be to identify sources of elevated pollutant loadings so they could be addressed by the SWMP.

Table 10. Wet Weather Monitoring Program Implementation Schedules:

Activity	Permittee Class				
	A Phase I MS4s	B Phase II MS4s (2000 Census)	C New Phase II MS4s (2010 Census **)	D MS4s within Indian Lands	Cooperative (*) Any Permittee with cooperative programs
Submit wet weather monitoring preference to EPA (i.e., individual monitoring program vs. cooperative monitoring program) with NOI submittals	NOI submittal Deadline (see Table 1)	NOI submittal Deadline (see Table 1)	NOI submittal Deadline (see Table 1)	NOI submittal Deadline (see Table 1)	NOI submittal Deadline (see Table 1)
Submit a detailed description of the monitoring scheme to EPA and NMED for approval. The monitoring scheme should include: a list of pollutants; a description of monitoring sites with an explanation of why those sites were selected; and a detailed map of all proposed monitoring sites	Ten (10) months from effective date of permit	Ten (10) months from effective date of permit	Eleven (11) months from effective date of permit	Eleven (11) months from effective date of permit	Twelve (12) months from effective date of permit
Submit certification that all wet weather monitoring sites are operational and begin sampling	Eleven (11) months from effective date of permit	Eleven (11) months from effective date of permit	Thirteen (13) months from effective date of permit	Thirteen (13) months from effective date of permit	Fourteen (14) months from effective date of permit
Update SWMP document and submit annual reports	Annually	Annually	Annually	Annually	Annually

(**) or MS4s designated by the Director

Note: The deadlines established in this table may be extended by the Director for any MS4 designated as needing a permit after issuance of this permit to accommodate expected date of permit coverage.

2. **Dry Weather Discharge Screening of MS4:** Each permittee shall identify, investigate, and address areas within its jurisdiction that may be contributing excessive levels of pollutants to the Municipal Separate Storm Sewer System as a result of dry weather discharges (i.e., discharges from separate storm sewers that occur without the direct influence of runoff from storm events, e.g. illicit discharges, allowable non-stormwater, groundwater infiltration, etc.). Due to the arid and semi-arid conditions of the area, the dry weather discharges screening program may be carried out during both wet season (July 1 through October 31) and dry Season (November 1 through June 30). Results of the assessment

shall be provided in each annual report. This program may be coordinated with the illicit discharge detection and elimination program required in Part I.D.5.e. The dry weather screening program shall be described in the SWMP and comply with the schedules contained in Part I.D.5.e.(iii). The permittee shall

- a. Include sufficient screening points to adequately assess pollutant levels from all areas of the MS4.
 - b. Screen for, at a minimum, BODs, sediment or a parameter addressing sediment (e.g., TSS or turbidity), E. coli, Oil and Grease, nutrients, any pollutant that has been identified as cause of impairment of a waterbody receiving discharges from that portion of the MS4, including temperature.
 - c. Specify the sampling and non-sampling techniques to be issued for initial screening and follow-up purposes. Sample collection and analysis need not conform to the requirements of 40 CFR Part 136; and
 - d. Perform monitoring only when an antecedent dry period of at least seventy-two (72) hours after a rain event greater than 0.1 inch in magnitude is satisfied. Monitoring methodology shall consist of collecting a minimum of four (4) grab samples spaced at a minimum interval of fifteen (15) minutes each. Grab samples will be combined into a single composite sample from each station, preserved, and delivered to the laboratory for analysis. A flow weighted automatic composite sample may also be used.
3. **Floatable Monitoring:** The permittees shall establish locations for monitoring/assessing floatable material in discharges to and/or from their MS4. Floatable material shall be monitored at least twice per year at priority locations and at minimum of two (2) stations except as provided in Part III.A.3. below. The amount of collected material shall be estimated in cubic yards.
- a. One (1) station should be located in the North Diversion (only applicable to the COA and AMAFCA).
 - b. Non-traditional MS4 as defined in Part VII shall sample/assess at one (1) station.
 - c. Phase II MS4s shall sample/assess at one (1) station within their jurisdiction or participate in a cooperative floatable monitoring plan addressing impacts on perennial waters of the US on a larger watershed basis.

A cooperative monitoring program may be established in partnership with other MS4s to monitor and assess floatable material in discharges to and/or from a joint jurisdictional area or watershed basis.

4. **Industrial and High Risk Runoff Monitoring** (Applicable only to Class A permittees): The permittees shall monitor stormwater discharges from Type 1 and 2 industrial facilities which discharge to the MS4 provided such facilities are located in their jurisdiction. (Note: if no such facilities are in the permittee's jurisdiction, the permittee must certify that this program element does not apply). The permittee shall:
- a. Conduct analytical monitoring of Type 1 facilities that discharge to the MS4. Type 1 facilities are municipal landfills; hazardous waste treatment, disposal and recovery facilities; facilities that are subject to EPCRA Title III, Section 313; and industrial facilities the permittee(s) determines are contributing a substantial pollutant loading to the MS4.
 - (i) The following parameters shall be monitored:
 - any pollutants limited in an existing NPDES permit to a subject facility;

- oil and grease;
 - chemical oxygen demand (COD);
 - pH;
 - biochemical oxygen demand, five-day (BOD₅);
 - total suspended solids (TSS);
 - total phosphorous;
 - total Kjeldahl nitrogen (TKN);
 - nitrate plus nitrite nitrogen;
 - any discharge information required under 40 CFR §122.21(g)(7)(iii) and (iv);
 - total cadmium;
 - total chromium;
 - total copper;
 - total lead;
 - total nickel;
 - total silver;
 - total zinc; and,
 - PCBs.
- (ii) Frequency of monitoring shall be established by the permittee(s), but may not be less than once per year;
- (iii) In lieu of the above parameter list, the permittee(s) may alter the monitoring requirement for any individual Type 1 facility:
- (a) To coincide with the corresponding industrial sector-specific monitoring requirements of the 2008 Multi-Sector General Stormwater Permit or any applicable general permit issued after September 2008. This exception is not contingent on whether a particular facility is actually covered by the general permit; or
 - (b) To coincide with the monitoring requirements of any individual permit for the stormwater discharges from that facility, and
 - (c) Any optional monitoring list must be supplemented by pollutants of concern identified by the permittee(s) for that facility.
- b. Conduct appropriate monitoring (e.g. analytic, visual), as determined by the permittee(s), at Type 2 facilities that discharge to the MS4. Type 2 facilities are other municipal waste treatment, storage, or disposal facilities (e.g. POTWs, transfer stations, incinerators) and industrial or commercial facilities the permittee(s) believed contributing pollutants to the MS4. The permittee shall include in each annual report, a list of parameters of concern and monitoring frequencies required for each type of facility.
- c. May use analytical monitoring data, on a parameter-by-parameter basis, that a facility has collected to comply with or apply for a State or NPDES discharge permit (other than this permit), so as to avoid unnecessary cost and duplication of effort;
- d. May allow the facility to test only one (1) outfall and to report that the quantitative data also apply to the substantially identical outfalls if:
- (i) A Type 1 or Type 2 industrial facility has two (2) or more outfalls with substantially identical effluents, and

- (ii) Demonstration by the facility that the stormwater outfalls are substantially identical, using one (1) or all of the following methods for such demonstration. The NPDES Stormwater Sampling Guidance Document (EPA 833-B-92-001), available on EPA's website at provides detailed guidance on each of the three options: (1) submission of a narrative description and a site map; (2) submission of matrices; or (3) submission of model matrices.
- b. May accept a copy of a "no exposure" certification from a facility made to EPA under 40 CFR §122.26(g), in lieu of analytic monitoring.

5. **Additional Sample Type, Collection and Analysis:**

- a. **Wet Weather (or Storm Event) Discharge Monitoring:** If storm event discharges are collected to meet the objectives of the Comprehensive Monitoring and Assessment Program required in Part III.A (e.g., assess compliance with this permit; assess the effectiveness of the permittee's stormwater management program; assess the impacts to receiving waters resulting from stormwater discharges), the following requirements apply:
 - (i) **Composite Samples:** Flow-weighted composite samples shall be collected as follows:
 - (a) **Composite Method –** Flow-weighted composite samples may be collected manually or automatically. For both methods, equal volume aliquots may be collected at the time of sampling and then flow-proportioned and composited in the laboratory, or the aliquot volume may be collected based on the flow rate at the time of sample collection and composited in the field.
 - (b) **Sampling Duration –** Samples shall be collected for at least the first three (3) hours of discharge. Where the discharge lasts less than three (3) hours, the permittee should report the value. .
 - (c) **Aliquot Collection –** A minimum of three (3) aliquots per hour, separated by at least fifteen (15) minutes, shall be collected. Where more than three (3) aliquots per hour are collected, comparable intervals between aliquots shall be maintained (e.g. six aliquots per hour, at least seven (7) minute intervals).
 - (ii) **Grab Samples:** Grab samples shall be taken during the first two (2) hours of discharge.
- b. **Analytical Methods:** Analysis and collection of samples shall be done in accordance with the methods specified at 40 CFR §136. Where an approved 40 CFR §136 method does not exist, any available method may be used unless a particular method or criteria for method selection (such as sensitivity) has been specified in the permit. The minimum quantification levels (MQLs) in Appendix F are to be used for reporting pollutant data for NPDES permit applications and/or compliance reporting.

Screening level tests may utilize less expensive "field test kits" using test methods not approved by EPA under 40 CFR 136, provided the manufacturers published detection ranges are adequate for the illicit discharge detection purposes.

EPA Method 1668 shall be utilized when PCB water column monitoring is conducted to determine compliance with permit requirements. For purposes of sediment sampling in dry weather as part of a screening program to identify area(s) where PCB control/clean-up efforts may need to be focused, either the Arochlor test (EPA Method 8082) or USGS test method (8093) may be utilized, but must use EPA Method 1668 (latest revision) for confirmation and determination of specific PCB levels at that location.

EPA Method 900.0 shall be utilized when gross alpha water column monitoring is conducted to determine compliance with permit requirements.

B. ANNUAL REPORT

The permittees shall submit an annual report to be submitted by no later than **December 1st**. See suggested form at <http://epa.gov/region6/water/npdes/sw/ms4/index.htm>. The report shall cover the previous year from **July 1st to June 30rd** and include the below separate sections. Additionally, the year one (1) and year four (4) annual report shall include submittal of a complete SWMP revision.

At least forty five (45) days prior to submission of each Annual Report, the permittee must provide public notice of and make available for public review and comment a draft copy of the Annual Report. All public input must be considered in preparation of the final Annual Reports and any changes to the SWMP.

Note: A complete copy of the signed Annual Report should be maintained on site.

1. **SWMP(s) status of implementation**: shall include the status of compliance with all schedules established under this permit and the status of actions required in Parts I, III, and VI.
2. **SWMP revisions**: shall include revisions, if necessary, to the assessments of controls or BMPs reported in the permit application (or NOI for coverage under this permit) under 40 CFR §122.26(d)(2)(v) and §122.34(d)(1)(i) are to be included, as well as a cumulative list of all SWMP revisions during the permit term.

Class A permittees shall include revisions, if necessary, to the fiscal analysis reported in the permit application (or NOI for coverage under this permit) under §122.26(d)(2)(vi).
3. **Performance assessment**: shall include:
 - a. an assessment of performance in terms of measurable goals, including, but not limited to, a description of the number and nature of enforcement actions and inspections, public education and public involvement efforts;
 - b. a summary of the data, including monitoring data, that is accumulated throughout the monitoring year (July 1 to June 30); actual values of representative monitoring results shall be included, if results are above minimum quantification level (MQL); and
 - c. an identification of water quality improvements or degradation.
4. **Annual expenditures**: for the reporting period, with a breakdown for the major elements of the stormwater management program and the budget for the year following each annual report. (Applicable only to Class A permittees)
5. **Annual Report Responsibilities for Cooperative Programs**: preparation of a system-wide report with cooperative programs may be coordinated among cooperating MS4s and then used as part of individual Annual Reports. The report of a cooperative program element shall indicate which, if any, permittee(s) have failed to provide the required information on the portions of the MS4 for which they are responsible to the cooperation permittees.
 - a. Joint responsibility for reports covering cooperative programs elements shall be limited to participation in preparation of the overview for the entire system and inclusion of the identity of any permittee who failed to provide input to the annual report.

- b. Individual permittees shall be individually responsible for content of the report relating to the portions of the MS4 for which they are responsible and for failure to provide information for the system-wide annual report no later than July 31st of each year.
6. **Public Review and Comment:** a brief summary of any issues raised by the public on the draft Annual Report, along with permittee's responses to the public comments.
7. **Signature on Certification of Annual Reports:** The annual report shall be signed and certified, in accordance with Part IV.H and include a statement or resolution that the permittee's governing body or agency (or delegated representative) has reviewed or been apprised of the content of the Annual Report. Annual report shall be due no later than December 1st of each year. A complete copy of the signed Annual Report should be maintained on site.

C. CERTIFICATION AND SIGNATURE OF RECORDS.

All reports required by the permit and other information requested by the EPA shall be signed and certified in accordance with Part IV.H.

D. REPORTING: WHERE AND WHEN TO SUBMIT

1. Monitoring results (Part III.A.1, Part III.A.3, Part III.A.5.a) obtained during the reporting period running from July 1st to June 30th shall be submitted on discharge monitoring report (DMR) forms along with the annual report required by Part III.B. A separate DMR form is required for each monitoring period (season) specified in Part III.A.1. If any individual analytical test result is less than the minimum quantification level (MQL) listed for that parameter, then a value of zero (0) may be used for that test result for the discharge monitoring report (DMR) calculations and reporting requirements. The annual report shall include the actual value obtained, if test result is less than the MQL (See Appendix F).
2. Signed copies of DMRs required under Part III, the Annual Report required by Part III.B, and all other reports required herein, shall be submitted in electronic form to R6_MS4Permits@epa.gov (note: there is an underscore between R6 and MS4).

Copy of a suggested Annual Report Format is located in EPA R6 website:
<http://epa.gov/region6/water/npdes/sw/ms4/index.htm>.

Electronic submittal of the documents required in the permit using a compatible Integrated Compliance Information System (ICIS) format would be allowed if available.

3. Requests for SWMP updates, modifications in monitoring locations, or application for an individual permit shall, be submitted to,:

U.S. EPA, Region 6
Water Quality Protection Division
Operations Support Office (6WQ-O)
1445 Ross Avenue
Dallas, Texas 75202-2733

4. Additional Notification. Permittee(s) shall also provide copies of NOIs, DMRs, annual reports, NOTs, requests for SWMP updates, items for compliance with permit requirements for Compliance with Water Quality Standards in Part I.C.1, TMDL's reports established in Part I.C.2, monitoring scheme, reports, and certifications required in Part III.A.1, programs or changes in monitoring locations, and all other reports required herein, to:

New Mexico Environment Department
Attn: Bruce Yurdin, Program Manager
Surface Water Quality Bureau
Point Source Regulation Section
P.O. Box 5469
Santa Fe, New Mexico 87502

Pueblo of Sandia Environment Department
Attn: Scott Bulgrin, Water Quality Manager
481 Sandia Loop
Bernalillo, NM 87004

(Note: Only those MS4s with discharges upstream of or to waters under the jurisdiction of the Pueblo of Sandia: AMAFCA, Sandoval County, Village of Corrales, City of Rio Rancho, Town of Bernalillo, SSCAFCA, and ESCAFCA)

Pueblo of Isleta
Attn: Ramona M. Montoya, Environment Division Manager
P.O. Box 1270
Isleta NM 87022

(Notes: Only the City of Albuquerque, Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA), New Mexico Department of Transportation (NMDOT) District 3, KAFB (Kirtland Air Force Base), Sandia Labs (DOE), and Bernalillo County). All parties submitting an NOI or NOT shall notify the Pueblo of Isleta in writing that a NOI or NOT has been submitted to EPA

Water Resources Division Manager
Pueblo of Santa Ana
2 Dove Road
Santa Ana Pueblo, New Mexico 87004

(Note: Only those MS4s with discharges upstream of or to waters under the jurisdiction of the Pueblo of Santa Ana)

PART IV. STANDARD PERMIT CONDITIONS

A. DUTY TO COMPLY.

The permittee(s) must comply with all conditions of this permit insofar as those conditions are applicable to each permittee, either individually or jointly. Any permit noncompliance constitutes a violation of the Clean Water Act (The Act) and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

B. PENALTIES FOR VIOLATIONS OF PERMIT CONDITIONS.

The EPA will adjust the Civil and administrative penalties listed below in accordance with the Civil Monetary Penalty Inflation Adjustment Rule (Federal Register: Dec. 31, 1996, Volume 61, No. 252, pages 69359-69366, as corrected, March 20, 1997, Volume 62, No. 54, pages 13514-13517) as mandated by the Debt Collection Improvement Act of 1996 for inflation on a periodic basis. This rule allows EPA's penalties to keep pace with inflation. The Agency is required to review its penalties at least once every four years thereafter and to adjust them as necessary for inflation according to a specified formula. The civil and administrative penalties listed below were adjusted for inflation starting in 1996.

1. Criminal Penalties.

- a. **Negligent Violations:** The Act provides that any person who negligently violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than one (1) year, or both.
- b. **Knowing Violations:** The Act provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than \$5,000 nor more than \$50,000 per day of violation, or by imprisonment for not more than three (3) years, or both.
- c. **Knowing Endangerment:** The Act provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act and who knows at that time that he is placing another person in imminent danger of death or serious bodily injury is subject to a fine of not more than \$250,000, or by imprisonment for not more than fifteen (15) years, or both.
- d. **False Statement:** The Act provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under the Act or who knowingly falsifies, tampers with, or renders inaccurate, any monitoring device or method required to be maintained under the Act, shall upon conviction, be punished by a fine of not more than \$10,000 or by imprisonment for not more than two (2) years, or by both. If a conviction is for a violation committed after a first conviction of such person under this paragraph, punishment shall be by a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than four (4) years, or by both. (See Section 309(c)(4) of the Act).

2. **Civil Penalties.** The Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a civil penalty not to exceed \$27,500 per day for each violation.

3. **Administrative Penalties.** The Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to an administrative penalty, as follows:

- a. **Class I penalty:** Not to exceed \$11,000 per violation nor shall the maximum amount exceed \$27,500.

NPDES Permit No. NMR04A000

- b. **Class II penalty:** Not to exceed \$11,000 per day for each day during which the violation continues nor shall the maximum amount exceed \$137,500.
- C. DUTY TO REAPPLY.** If the permittee wishes to continue an activity regulated by this permit after the permit expiration date, the permittee must apply for and obtain a new permit. The application shall be submitted at least 180 days prior to expiration of this permit. The EPA may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date. Continuation of expiring permits shall be governed by regulations promulgated at 40 CFR §122.6 and any subsequent amendments.
- D. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- E. DUTY TO MITIGATE.** The permittee(s) shall take all reasonable steps to control or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.
- F. DUTY TO PROVIDE INFORMATION.** The permittee(s) shall furnish to the EPA, within a time specified by the EPA, any information which the EPA may request to determine compliance with this permit. The permittee(s) shall also furnish to the EPA upon request copies of records required to be kept by this permit.
- G. OTHER INFORMATION.** When the permittee becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in any report to the EPA, he or she shall promptly submit such facts or information.
- H. SIGNATORY REQUIREMENTS.** For a municipality, State, or other public agency, all DMRs, SWMPs, reports, certifications or information either submitted to the EPA or that this permit requires be maintained by the permittee(s), shall be signed by either a:
 1. Principal executive officer or ranking elected official; or
 2. Duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described above and submitted to the EPA.
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of manager, operator, superintendent, or position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the company. A duly authorized representative may thus be either a named individual or any individual occupying a named position.
 3. If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new written authorization satisfying the requirements of this paragraph must be submitted to the EPA prior to or together with any reports, information, or applications to be signed by an authorized representative.
 4. Certification: Any person signing documents under this section shall make the following certification: "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."

- I. PENALTIES FOR FALSIFICATION OF MONITORING SYSTEMS.** The Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by fines and imprisonment described in Section 309 of the Act.
- J. OIL AND HAZARDOUS SUBSTANCE LIABILITY.** Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under section 311 of the Act or section 106 of CERCLA.
- K. PROPERTY RIGHTS.** The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.
- L. SEVERABILITY.** The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.
- M. REQUIRING A SEPARATE PERMIT.**
1. The EPA may require any permittee authorized by this permit to obtain a separate NPDES permit. Any interested person may petition the EPA to take action under this paragraph. The Director may require any permittee authorized to discharge under this permit to apply for a separate NPDES permit only if the permittee has been notified in writing that a permit application is required. This notice shall include a brief statement of the reasons for this decision, an application form (as necessary), a statement setting a deadline for the permittee to file the application, and a statement that on the effective date of the separate NPDES permit, coverage under this permit shall automatically terminate. Separate permit applications shall be submitted to the address shown in Part III.D. The EPA may grant additional time to submit the application upon request of the applicant. If an owner or operator fails to submit, prior to the deadline of the time extension, a separate NPDES permit application as required by the EPA, then the applicability of this permit to the permittee is automatically terminated at the end of the day specified for application submittal.
 2. Any permittee authorized by this permit may request to be excluded from the coverage of this permit by applying for a separate permit. The permittee shall submit a separate application as specified by 40 CFR §122.26(d) for Class A permittees and by 40 CFR §122.33(b)(2) for Class B, C, and D permittees, with reasons supporting the request to the Director. Separate permit applications shall be submitted to the address shown in Part III.D.3. The request may be granted by the issuance of a separate permit if the reasons cited by the permittee are adequate to support the request.
 3. When an individual NPDES permit is issued to a discharger otherwise subject to this permit, or the permittee is authorized to discharge under an alternative NPDES general permit, the applicability of this permit to the individual NPDES permittee is automatically terminated on the effective date of the individual permit or the date of authorization of coverage under the alternative general permit, whichever the case may be. When an individual NPDES permit is denied to an operator otherwise subject to this permit, or the operator is denied for coverage under an alternative NPDES general permit, the applicability of this permit to the individual NPDES permittee is automatically terminated on the date of such denial, unless otherwise specified by the permitting authority.
- N. STATE / ENVIRONMENTAL LAWS.**
1. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by section 510 of the Act.

2. No condition of this permit shall release the permittee from any responsibility or requirements under other environmental statutes or regulations.

O. PROPER OPERATION AND MAINTENANCE. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit and with the requirements of stormwater management programs. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems, installed by a permittee only when necessary to achieve compliance with the conditions of the permit.

P. MONITORING AND RECORDS.

1. The permittee must retain records of all monitoring information, including, all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, copies of Discharge Monitoring Reports (DMRs), a copy of the NPDES permit, and records of all data used to complete the NOI for this permit, for a period of at least three years from the date of the sample, measurement, report or application, or for the term of this permit, whichever is longer. This period may be extended by request of the permitting authority at any time.
2. The permittee must submit its records to the permitting authority only when specifically asked to do so. The permittee must retain a description of the SWMP required by this permit (including a copy of the permit language) at a location accessible to the permitting authority. The permittee must make its records, including the NOI and the description of the SWMP, available to the public if requested to do so in writing.
3. Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The initials or name(s) of the individual(s) who performed the sampling or measurements;
 - c. The date(s) analyses were performed;
 - d. The time(s) analyses were initiated;
 - e. The initials or name(s) of the individual(s) who performed the analyses;
 - f. References and written procedures, when available, for the analytical techniques or methods used; and
 - g. The results of such analyses, including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine these results.
4. The permittee must maintain, for the term of the permit, copies of all information and determinations used to document permit eligibility under Parts I.A.5.f and Part I.A.3.b.

Q. MONITORING METHODS. Monitoring must be conducted according to test procedures approved under 40 CFR §136, unless other test procedures have been specified in this permit. The minimum quantification levels (MQLs) in Appendix F are to be used for reporting pollutant data for NPDES permit applications and/or compliance reporting.

R. INSPECTION AND ENTRY. The permittee shall allow the EPA or an authorized representative of EPA, or the State, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter the permittee's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;
2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit;

NPDES Permit No. NMR04A000

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
 4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Act, any substance or parameters at any location.
- S. PERMIT ACTIONS.** This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- T. ADDITIONAL MONITORING BY THE PERMITTEE(S).** If the permittee monitors more frequently than required by this permit, using test procedures approved under 40 CFR §136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report (DMR). Such increased monitoring frequency shall also be indicated on the DMR.
- U. ARCHEOLOGICAL AND HISTORIC SITES** (Applicable to areas within the corporate boundary of the City of Albuquerque and Tribal lands). This permit does not authorize any stormwater discharges nor require any controls to control stormwater runoff which are not in compliance with any historic preservation laws.
1. In accordance with the Albuquerque Archaeological Ordinance (Section 2-12-2, 14-16-5, and 14-14-3-4), an applicant for either:
 - a. A preliminary plan for any subdivision that is five acres or more in size; or
 - b. A site development plan or master development plan for a project that is five acres or more in size on property that is zoned SU-1 Special Use, IP Industrial Park, an SU-2 zone that requires site plan review, PC Planned Community with a site, or meets the Zoning Code definition of a Shopping Center must first obtain either a Certificate of No Effect or a Certificate of Approval from the City Archaeologist. Details of the requirements for a Certificate of No Effect or a Certificate of Approval are described in the ordinance. Failure to obtain a certificate as required by ordinance shall subject the property owner to the penalties of §1-1-99 ROA 1994.
 2. If municipal excavation and/or construction projects implementing requirements of this permit will result in the disturbance of previously undisturbed land, and the project is not required to have a separate NPDES permit (e.g. general permit for discharge of stormwater associated with construction activity), then the permittee may seek authorization for stormwater discharges from such sites of disturbance by:
 - a. Submitting, thirty (30) days prior to commencing land disturbance, the following to the State Historic Preservation Officer (SHPO) and to appropriate Tribes and Tribal Historic Preservation Officers for evaluation of possible effects on properties listed or eligible for listing on the National Register of Historic Places:
 - (i) A description of the construction or land disturbing activity and the potential impact that this activity may have upon the ground, and
 - (ii) A copy of a USGS topographic map outlining the location of the project and other ancillary impact areas.
 - (iii) The addresses of the SHPO, Sandia Pueblo, and Isleta Pueblo are:

State Historic Preservation Officer
New Mexico Historic Preservation Division

Bataan Memorial Building
407 Galisteo Street, Ste. 236
Santa Fe, New Mexico 87501

Pueblo of Sandia Environment Department
Attn: Frank Chaves, Environment Director
481 Sandia Loop
Bernalillo, New Mexico 87004

Pueblo of Isleta
Department of Cultural and Historic Preservation
Attn: Daniel Waseta, Director
P.O. Box 1270
Isleta NM 87022

Water Resources Division Manager
Pueblo of Santa Ana
2 Dove Road
Santa Ana Pueblo, New Mexico 87004

3. If the permittee receives a request for an archeological survey or notice of adverse effects from the SHPO, the permittee shall delay such activity until:
 - a. A cultural resource survey report has been submitted to the SHPO for a review and a determination of no effect or no adverse effect has been made, and
 - b. If an adverse effect is anticipated, measures to minimize harm to historic properties have been agreed upon between the permittee and the SHPO.
 4. If the permittee does not receive notification of adverse effects or a request for an archeological survey from the SHPO within thirty (30) days, the permittee may proceed with the activity.
 5. Alternately, the permittee may obtain authorization for stormwater discharges from such sites of disturbance by applying for a modification of this permit. The permittee may apply for a permit modification by submitting the following information to the Permitting Authority 180 days prior to commencing such discharges:
 - a. A letter requesting a permit modification to include discharges from activities subject to this provision, in accordance with the signatory requirements in Part IV.H.
 - b. A description of the construction or land disturbing activity and the potential impact that this activity may have upon the ground; County in which the facility will be constructed; type of facility to be constructed; size area (in acres) that the facility will encompass; expected date of construction; and whether the facility is located on land owned or controlled by any political subdivision of New Mexico; and
 - c. A copy of a USGS topographic map outlining the location of the project and other ancillary impact areas.
- V. **CONTINUATION OF THE EXPIRED GENERAL PERMIT.** If this permit is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with the Administrative Procedures Act and remain in force and effect. Any permittee who was granted permit coverage prior to the expiration date will automatically remain covered by the continued permit until the earlier of:

NPDES Permit No. NMR04A000

1. Reissuance or replacement of this permit, at which time the permittee must comply with the Notice of Intent conditions of the new permit to maintain authorization to discharge; or
2. Issuance of an individual permit for your discharges; or
3. A formal permit decision by the permitting authority not to reissue this general permit, at which time the permittee must seek coverage under an alternative general permit or an individual permit.

- W. **PERMIT TRANSFERS:** This permit is not transferable to any person except after notice to the permitting authority. The permitting authority may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Act.
- X. **ANTICIPATED NONCOMPLIANCE.** The permittee must give advance notice to the permitting authority of any planned changes in the permitted small MS4 or activity which may result in noncompliance with this permit. (see
- Y. **PROCEDURES FOR MODIFICATION OR REVOCATION:** Permit modification or revocation will be conducted according to 40 CFR 122.62, 122.63, 122.64 and 124.5.

PART V. PERMIT MODIFICATION

A. MODIFICATION OF THE PERMIT. The permit may be reopened and modified, in accordance with 40 CFR §122.62, §122.63, and §124.5, during the life of the permit to address:

1. Changes in the State's Water Quality Management Plan, including Water Quality Standards;
2. Changes in applicable water quality standards, statutes or regulations;
3. A new permittee who is the owner or operator of a portion of the MS4;
4. Changes in portions of the SWMP that are considered permit conditions;
5. Construction activities implementing requirements of this permit that will result in the disturbance of previously undisturbed land and not required to have a separate NPDES permit; or
6. Other modifications deemed necessary by the EPA to meet the requirements of the Act.

B. MODIFICATION OF THE SWMP(s). Only those portions of the SWMPs specifically required as permit conditions shall be subject to the modification requirements of 40 CFR §124.5. Addition of components, controls, or requirements by the permittee(s); replacement of an ineffective or infeasible control implementing a required component of the SWMP with an alternate control expected to achieve the goals of the original control; and changes required as a result of schedules contained in Part VI shall be considered minor changes to the SWMP and not modifications to the permit. (See also Part I.D.6)

C. CHANGES IN REPRESENTATIVE MONITORING SITES. Changes in monitoring sites, other than those with specific numeric effluent limitations (as described in Part III.A.1.g), shall be considered minor modifications to the permit and shall be made in accordance with the procedures at 40 CFR §122.63.

PART VI. SCHEDULES FOR IMPLEMENTATION AND COMPLIANCE.

- A. IMPLEMENTATION AND AUGMENTATION OF THE SWMP(s).** The permittee(s) shall comply with all elements identified in Parts I and III for SWMP implementation and augmentation, and permit compliance. The EPA shall have sixty (60) days from receipt of a modification or augmentation made in compliance with Part VI to provide comments or request revisions. During the initial review period, EPA may extend the time period for review and comment. The permittee(s) shall have thirty (30) days from receipt of the EPA's comments or required revisions to submit a response. All changes to the SWMP or monitoring plans made to comply with schedules in Parts I and III must be approved by EPA prior to implementation.
- B. COMPLIANCE WITH EFFLUENT LIMITATIONS.** Reserved.
- C. REPORTING COMPLIANCE WITH SCHEDULES.** No later than fourteen (14) days following a date for a specific action (interim milestone or final deadline) identified in the Part VI schedule(s), the permittee(s) shall submit a written notice of compliance or noncompliance to the EPA in accordance with Part III.D.
- D. MODIFICATION OF THE SWMP(s).** The permittee(s) shall modify its SWMP, as appropriate, in response to modifications required in Part VI.A. Such modifications shall be made in accordance with Part V.B.

PART VII. DEFINITIONS

All definitions contained in Section 502 of the Act shall apply to this permit and are incorporated herein by reference. Unless otherwise specified, additional definitions of words or phrases used in this permit are as follows:

- (1) **Baseline Load** means the load for the pollutant of concern which is present in the waterbody before BMPs or other water quality improvement efforts are implemented.
- (2) **Best Management Practices (BMPs)** means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to 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.
- (3) **Bioretention** means the water quality and water quantity stormwater management practice using the chemical, biological and physical properties of plants, microbes and soils for the removal of pollution from stormwater runoff.
- (4) **Canopy Interception** means the interception of precipitation, by leaves and branches of trees and vegetation that does not reach the soil.
- (5) **Contaminated Discharges:** The following discharges are considered contaminated:
 - Has had a discharge resulting in the discharge of a reportable quantity for which notification is or was required pursuant to 40 CFR 117.21 or 40 CFR 302.6 at any time since November 16, 1987; or
 - Has had a discharge resulting in the discharge of a reportable quantity for which notification is or was required pursuant to 40 CFR 110.6 at any time since November 16, 1987; or
 - Contributes to a violation of an applicable water quality standard.
- (6) **Controls or Control Measures or Measures** means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or control the pollution of waters of the United States. Controls 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.
- (7) **Controllable Sources:** Sources, private or public, which fall under the jurisdiction of the MS4.
- (8) **CWA or The Act** means Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub.L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483 and Pub. L. 97-117, 33 U.S.C. 1251 et.seq.
- (9) **Co-permittee** means a permittee to a NPDES permit that is only responsible for permit conditions relating to the discharge for which it is operator.
- (10) **Composite Sample** means a sample composed of two or more discrete samples. The aggregate sample will reflect the average water quality covering the compositing or sample period.
- (11) **Core Municipality** means, for the purpose of this permit, the municipality whose corporate boundary (unincorporated area for counties and parishes) defines the municipal separate storm sewer system. (ex. City of Dallas for the Dallas Municipal Separate Storm Sewer System, Harris County for unincorporated Harris County).
- (12) **Direct Connected Impervious Area (DCIA)** means the portion of impervious area with a direct hydraulic connection to the permittee's municipal separate storm sewer system or a waterbody via continuous paved surfaces, gutters, pipes, and other impervious features. Direct connected impervious area typically does not include isolated impervious areas with an indirect hydraulic connection to the municipal separate storm sewer system (e.g., swale or detention basin) or that otherwise drain to a pervious area.
- (13) **Director** means the Regional Administrator or an authorized representative.
- (14) **Discharge** for the purpose of this permit, unless indicated otherwise, means discharges from the municipal separate storm sewer system.
- (15) **Discharge-related activities** include: activities which cause, contribute to, or result in storm water point source pollutant discharges; and measures to control storm water discharges, including the siting, construction and operation of best management practices (BMPs) to control, reduce or prevent storm water pollution.
- (16) **Engineered Infiltration** means an underground device or system designed to accept stormwater and slowly exfiltrates it into the underlying soil. This device or system is designed based on soil tests that define the exfiltration rate.
- (17) **Evaporation** means rainfall that is changed or converted into a vapor.
- (18) **Evapotranspiration** means the sum of evaporation and transpiration of water from the earth's surface to the atmosphere. It includes evaporation of liquid or solid water plus the transpiration of plants.
- (19) **Extended Filtration** means a structural stormwater practice which filters stormwater runoff through vegetation and engineered soil media. A portion of the stormwater runoff drains into an underdrain system which slowly releases it after the storm is over.

- (20) **Facility** means any NPDES "point source" or any other facility (including land or appurtenances thereto) that is subject to regulation under the NPDES program.
- (21) **Flood Control Projects** mean major drainage projects developed to control water quantity rather than quality, including channelization and detention.
- (22) **Flow-weighted composite sample** means a composite sample consisting of a mixture of aliquots collected at a constant time interval, where the volume of each aliquot is proportional to the flow rate of the discharge.
- (23) **Grab Sample** means a sample which is taken from a wastestream on a one-time basis without consideration of the flow rate of the wastestream and without consideration of time.
- (24) **Green Infrastructure** means an array of products, technologies, and practices that use natural systems – or engineered systems that mimic natural processes – to enhance overall environmental quality and provide utility services. As a general principal, Green Infrastructure techniques use soils and vegetation to infiltrate, evapotranspire, and/or recycle stormwater runoff. When used as components of a stormwater management system, Green Infrastructure practices such as green roofs, porous pavement, rain gardens, and vegetated swales can produce a variety of environmental benefits. In addition to effectively retaining and infiltrating rainfall, these technologies can simultaneously help filter air pollutants, reduce energy demands, mitigate urban heat islands, and sequester carbon while also providing communities with aesthetic and natural resource benefits.
- (25) **Hydromodification** means the alteration of the natural flow of water through a landscape, and often takes the form of channel straightening, widening, deepening, or relocating existing, natural stream channels. It also can involve excavation of borrow pits or canals, building of levees, streambank erosion, or other conditions or practices that change the depth, width or location of waterways. Hydromodification usually results in water quality and habitat impacts.
- (26) **Illicit connection** means any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.
- (27) **Illicit discharge** means any discharge to a municipal separate storm sewer that is not composed entirely of stormwater except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting activities.
- (28) **Impervious Area (IA)** means conventional pavements, sidewalks, driveways, roadways, parking lots, and rooftops.
- (29) **Indian Country** means:
- All land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation;
 - All dependent Indian communities within the borders of the United States whether within the originally or subsequently acquired territory thereof, and whether within or without the limits of a state; and
 - All Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same. This definition includes all land held in trust for an Indian tribe.
- (30) **Individual Residence** means, for the purposes of this permit, single or multi-family residences. (e.g. single family homes and duplexes, town homes, apartments, etc.)
- (31) **Infiltration** means the process by which stormwater penetrates the soil.
- (32) **Land application unit** means an area where wastes are applied onto or incorporated into the soil surface (excluding manure spreading operations) for treatment or disposal.
- (33) **Landfill** means an area of land or an excavation in which wastes are placed for permanent disposal, and which is not a land application unit, surface impoundment, injection well, or waste pile.
- (34) **Land Use** means the way in which land is used, especially in farming and municipal planning.
- (35) **Large or medium municipal separate storm sewer system** means all municipal separate storm sewers that are either:
- located in an incorporated place (city) with a population of 100,000 or more as determined by the latest Decennial Census by the Bureau of Census (these cities are listed in Appendix F of 40 CFR §122); or (ii) located in the counties with unincorporated urbanized populations of 100,000 or more, except municipal separate storm sewers are located in the incorporated places, townships, or towns within such counties (these counties are listed in Appendices H and I of 40 CFR §122); or (iii) owned or operated by a municipality other than those described in Paragraph (i) or (ii) and that are designated by the Regional Administrator as part of the large or medium municipal separate storm sewer system.
- (36) **MEP** means maximum extent practicable, the technology-based discharge standard for municipal separate storm sewer systems to reduce pollutants in storm water discharges. A discussion of MEP as it applies to small MS4s is found at 40 CFR 122.34. CWA section 402(p)(3)(B)(iii) requires that a municipal permit "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 other provisions such as the Administrator or the State determines appropriate for the control of such pollutants.
- (37) **Measurable Goal** means a quantitative measure of progress in implementing a component of storm water management program.

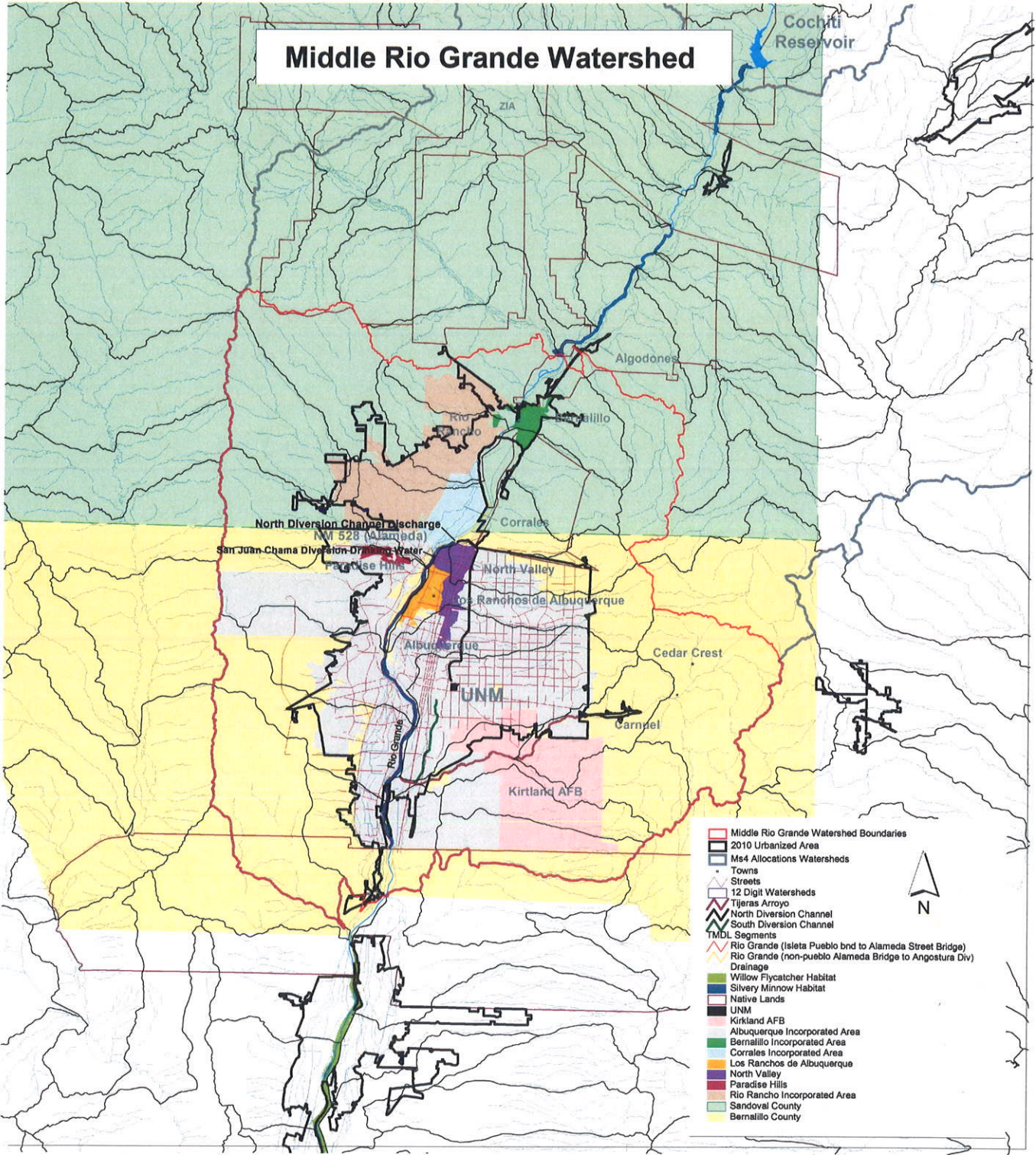
- (38) **Municipal Separate Storm Sewer (MS4)** means all separate storm sewers that are defined as “large” or “medium” or “small” municipal separate storm sewer systems pursuant to paragraphs 40 CFR §122.26(b)(4), (b)(7), and (b)(16), or designated under paragraph 40 CFR §122.26(a)(1)(v).
- (39) **Non-traditional MS4** means systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings. 40 CFR 122.26(a)(16)(iii).
- (40) **NOI** means Notice of Intent to be covered by this permit (see Part I.B of this permit)
- (41) **NOT** means Notice of Termination.
- (42) **Outfall** means a *point source* as defined by 40 CFR 122.2 at the point where a municipal separate storm sewer discharges to waters of the United States and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States.
- (43) **Percent load reduction** means the difference between the baseline load and the target load divided by the baseline load.
- (44) **Owner or operator** means the owner or operator of any “facility or activity” subject to regulation under the NPDES program.
- (45) **Permittee** refers to any person (defined below) authorized by this NPDES permit to discharge to Waters of the United States.
- (46) **Permitting Authority** means EPA, Region 6.
- (47) **Person** means an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof.
- (48) **Point Source** means 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, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff.
- (49) **Pollutant** is defined at 40 CFR 122.2. Pollutant means dredged spoil, solid waste, incinerator residue, filter back-wash, sewage, garbage, sewage sludge. Munitions, chemical waste, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011), heat, wrecked or discarded equipment, rock sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.
- (50) **Pre-development Hydrology**, Predevelopment hydrology is generally the rain volume at which runoff would be produced when a site or an area is in its natural condition, prior to development disturbances. For the Middle Rio Grande area, EPA considers predevelopment conditions to be a mix of woods and desert shrub.
- (51) **Rainfall and Rainwater Harvesting** means the collection, conveyance, and storage of rainwater. The scope, method, technologies, system complexity, purpose, and end uses vary from rain barrels for garden irrigation in urban areas, to large-scale collection of rainwater for all domestic uses.
- (52) **Soil amendment** means adding components to in-situ or native soils to increase the spacing between soil particles so that the soil can absorb and hold more moisture. The amendment of soils changes various other physical, chemical and biological characteristics so that the soils become more effective in maintaining water quality.
- (53) **Storm drainage projects** include stormwater inlets, culverts, minor conveyances and a host of other structures or devices.
- (54) **Storm sewer**, unless otherwise indicated, means a municipal separate storm sewer.
- (55) **Stormwater** means stormwater runoff, snow melt runoff, and surface runoff and drainage.
- (56) **Stormwater Discharge Associated with Industrial Activity** means the discharge from any conveyance which is used for collecting and conveying stormwater and which is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant (See 40 CFR §122.26(b)(14) for specifics of this definition).
- (57) **Target load** means the load for the pollutant of concern which is necessary to attain water quality goals (e.g. applicable water quality standards).
- (58) **Stormwater Management Program (SWMP)** means a comprehensive program to manage the quality of stormwater discharged from the municipal separate storm sewer system. For the purposes of this permit, the Stormwater Management Program is considered a single document, but may actually consist of separate programs (e.g. “chapters”) for each permittee.
- (59) **Targeted controls** means practices implemented to address particular pollutant of concern. For example litter program targets floatables.
- (60) **Time-weighted composite** means a composite sample consisting of a mixture of equal volume aliquots collected at a constant time interval.
- (61) **Total Maximum Daily Load (TMDL)** means a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards. A TMDL is the sum of individual wasteload allocations for point sources (WLA), load allocations for non-point sources and natural background (LA), and must consider seasonal variation and include a margin of safety. The TMDL comes in the form of a technical document or plan.

- (62) **Toxicity** means an LC50 of <100% effluent.
- (63) **Waste load allocation (WLA)** means 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.
- (64) **Wetlands** means those areas that are inundated or saturated by surface or ground water at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.
- (65) **Whole Effluent Toxicity (WET)** means the aggregate toxic effect of an effluent measured directly by a toxicity test.

PART VIII PERMIT CONDITIONS APPLICABLE TO SPECIFIC AREAS OR INDIAN COUNTY LANDS

Reserved

Appendix A - Middle Rio Grande Watershed Jurisdictions and Potential Permittees



Middle Rio Grande Watershed Jurisdictions and Potential Permittees

Class A:

City of Albuquerque
AMAFCA (Albuquerque Metropolitan Arroyo Flood Control Authority)
UNM (University of New Mexico)
NMDOT (New Mexico Department of Transportation District 3)

Class B:

Bernalillo County
Sandoval County
Village of Corrales
City of Rio Rancho
Los Ranchos de Albuquerque
KAFB (Kirtland Air Force Base)
Town of Bernalillo
EXPO (State Fairgrounds/Expo NM)
SSCAFCA (Southern Sandoval County Arroyo Flood Control Authority)
NMDOT (New Mexico Department of Transportation District 3)

Class C:

ESCAFCA (Eastern Sandoval County Arroyo Flood Control Authority)
Sandia Labs (DOE)

Class D:

Pueblo of Sandia
Pueblo of Isleta
Pueblo of Santa Ana

Note: There could be additional potential permittees.

NMDOT Dist. 3 falls into the Class A type permittee, if an individual program is developed or/and implemented. The timelines for cooperative programs should be used, if NMDOT Dist. 3 cooperates with other permittees.

Appendix B - Total Maximum Daily Loads (TMDLs)

B.1. Approved Total Maximum Daily Loads (TMDLs) Tables

A bacteria TMDL for the Middle Rio Grande was approved by the New Mexico Water Quality Control Commission on April 13, 2010, and by EPA on June 30, 2010. The new TMDL modifies: 1) the indicator parameter for bacteria from fecal coliform to *E. coli*, and 2) the way the WLAs are assigned

Discharges to Impaired Waters – TMDL Waste Load Allocations (WLAs)² for *E. coli*: Rio Grande¹

Stream Segment	Stream Name	Permittee Class	FLOW CONDITIONS & ASSOCIATED WLA (cfu/day) ³				
			High	Moist	Mid-Range	Dray	Low
2105_50	Isleta Pueblo boundary to Alameda Street Bridge (based on flow at USGS Station NM08330000)	Class A ⁴	3.36x10 ¹⁰	8.41 x10 ¹⁰	5.66 x10 ¹⁰	2.09 x10 ¹⁰	4.67 x10 ⁹
		Class B ⁵ Class C ⁶	3.73 x10 ⁹	9.35 x10 ⁹	6.29 x10 ⁹	2.32 x10 ⁹	5.19 x10 ⁸
2105.1_00	non-Pueblo Alameda Bridge to Angostura Diversion (based on flow at USGS Station NM08329928)	Class A	5.25 x10 ¹⁰	1.52 x10 ¹⁰	—	5.43 x10 ⁹	2.80 x10 ⁹
		Class B Class C	2.62 x10 ¹¹	7.59 x10 ¹⁰	—	2.71 x10 ¹⁰	1.40 x10 ¹⁰

- 1 Total Maximum Daily Load for the Middle Rio Grande Watershed, NMED, 2010.
- 2 The WLAs for the stormwater MS4 permit was based on the percent jurisdiction area approach. Thus, the MS4 WLAs are a percentage of the available allocation for each hydrologic zone, where the available allocation = TMDL – WLA – MOS.
- 3 Flow conditions relate to percent of days the flow in the Rio Grande at a USGS Gauge exceeds a particular level: High 0-10%; Moist 10-40%; Mid-Range 40-60%; Dry 60-90%; and Low 90-100%. (Source: Figures 4.3 and 4.4 in 2010 Middle Rio Grande TMDL)
- 4 Phase I MS4s
- 5 Phase II MS4s (2000 Census)
- 6 New Phase II MS4s (2010 Census or MS4s designated by the Director)

Estimating Target Loadings for Particular Monitoring Location:

The Table in B.2 below provides a mechanism to calculate, based on acreage within a drainage area, a target loading value for a particular monitoring location.

B.2. Calculating Alternative Sub-measurable Goals

Individual permittees or a group of permittees seeking alternative sub-measurable goals under C.2.b.(i).(c).B should consult NMED. Preliminary proposals should be submitted with the Notice of Intent (NOI) under Part I.B.2.k according to the due dates specified in Part I.B.1.a of the permit. This proposal shall include, but is not limited to, the following items

B.2.1 Determine base loading for subwatershed areas consistent with TMDL

- a. Using the table below, the permittee must develop a target load consistent with the TMDL for any sampling point in the watershed (even if it includes area outside the jurisdictional area of the permit).

E. coli loading on a per area basis (cfu/sq mi/day)

	high	moist	mid	dry	low
Alameda to Isleta	1.79E+09	4.48E+08	3.02E+08	1.11E+08	2.58E+07
Angostura to Alameda	3.25E+09	9.41E+08	5.19E+08	3.37E+08	1.74E+08

- b. An estimation of the pertinent, subwatershed area that the permittee is responsible for and the basis for determining that area, including the means for excluding any tributary inholdings;
- c. Using the total loading for the watershed (from part a) and the percentage of the watershed area that is part of the permittee(s) jurisdiction (part b) to calculate a base WLA for this subwatershed.

B.2.2 Set Alternative subwatershed targets

- a. Permittee(s) may reallocate WLA within and between subwatershed based on factors including:
 - Population density within the pertinent watershed area;
 - Slope of the waterway;
 - Percent impervious surface and how that value was determined;
 - Stormwater treatment, installation of green infrastructure for the control or treatment of stormwater and stormwater pollution prevention and education programs within specific watersheds
- b. A proposal for an alternative subwatershed target must include the rationale for the factor(s) used

B.2.3 Ensure overall compliance with TMDL WLA allocation

The permittee(s) will provide calculations demonstrating the total WLA under the alternative proposed in (Part II) is consistent with the baseline calculated in (Part I) based on their total jurisdictional area. Permittee(s) will not be allowed to allocate more area within the watershed than is accorded to them under their jurisdictional area. For permittees that work cooperatively, WLA calculations may be combined and used where needed within the sub-watershed amongst the cooperating parties.

WLA calculations must be sent as part of the Notice of Intent to EPA via e-mail at R6_MS4Permits@epa.gov. These calculations must also be sent to:

Sarah Holcomb
 Industrial and Stormwater Team Leader
 NMED Surface Water Quality Bureau
 P.O. Box 5469,

Appendix C - Historic Properties Eligibility Procedures

MS4 operators must determine whether their MS4's storm water discharges, allowable non-storm water discharges, or construction of best management practices (BMPs) to control such discharges, have potential to affect a property that is either listed or eligible for listing on the National Register of Historic Places.

For existing dischargers who do not need to construct BMPs for permit coverage, a simple visual inspection may be sufficient to determine whether historic properties are affected. However, for MS4s which are new storm water dischargers and for existing MS4s which are planning to construct BMPs for permit eligibility, MS4 operators should conduct further inquiry to determine whether historic properties may be affected by the storm water discharge or BMPs to control the discharge. In such instances, MS4 operators should first determine whether there are any historic properties or places listed on the National Register or if any are eligible for listing on the register (e.g., they are "eligible for listing").

Due to the large number of entities seeking coverage under this permit and the limited number of personnel available to State and Tribal Historic Preservation Officers nationwide to respond to inquiries concerning the location of historic properties, EPA suggests that MS4 operators first access the "National Register of Historic Places" information listed on the National Park Service's web page (www.nps.gov/nr/). Addresses for State Historic Preservation Officers and Tribal Historic Preservation Officers are listed in Parts II and III of this appendix, respectively. In instances where a Tribe does not have a Tribal Historic Preservation Officer, MS4 operators should contact the appropriate Tribal government office when responding to this permit eligibility condition. MS4 operators may also contact city, county or other local historical societies for assistance, especially when determining if a place or property is eligible for listing on the register. Tribes that do not currently reside in an area may also have an interest in cultural properties in areas they formerly occupied. Tribal contact information is available at <http://www.epa.gov/region06/6dra/oejta/tribalaffairs/index.html>

The following three scenarios describe how MS4 operators can meet the permit eligibility criteria for protection of historic properties under this permit:

- (1) If historic properties are not identified in the path of an MS4's storm water and allowable non-storm water discharges or where construction activities are planned to install BMPs to control such discharges (e.g., diversion channels or retention ponds), then the MS4 operator has met the permit eligibility criteria under Part I.A.3.b.(i).
- (2) If historic properties are identified but it is determined that they will not be affected by the discharges or construction of BMPs to control the discharge, the MS4 operator has met the permit eligibility criteria under Part I.A.3.b.(ii).
- (3) If historic properties are identified in the path of an MS4's storm water and allowable non-storm water discharges or where construction activities are planned to install BMPs to control such discharges, and it is determined that there is the potential to adversely affect the property, the MS4 operator can still meet the permit eligibility criteria under Part I.A.3.b.(ii) if he/she obtains and complies with a written agreement with the appropriate State or Tribal Historic Preservation Officer which outlines measures the MS4 operator will follow to mitigate or prevent those adverse effects. The operator should notify EPA before exercising this option.

The contents of such a written agreement must be included in the MS4's Storm Water Management Program.

In situations where an agreement cannot be reached between an MS4 operator and the State or Tribal Historic Preservation Officer, MS4 operators should contact EPA for assistance.

The term "adverse effects" includes but is not limited to damage, deterioration, alteration or destruction of the historic property or place. EPA encourages MS4 operators to contact the appropriate State or Tribal Historic Preservation Officer as soon as possible in the event of a potential adverse effect to a historic property.

MS4 operators are reminded that they must comply with applicable State, Tribal and local laws concerning the protection of historic properties and places.

I. Internet Information on the National Register of Historic Places

An electronic listing of the "National Register of Historic Places," as maintained by the National Park Service on its National Register Information System (NRIS), can be accessed on the Internet at www.nps.gov/nr/.

II. State Historic Preservation Officers (SHPO)
SHPO List for areas covered by the permit:

NEW MEXICO

Historic Preservation Div, Office of Cultural Affairs
Bataan Memorial Building, 407 Galisteo Street, Suite 236
Santa Fe, NM 87501
505-827-6320 FAX: 505-827-6338

III. Tribal Historic Preservation Officers
(THPO)

In instances where a Tribe does not have a Tribal Historic Preservation Officer, please contact the appropriate Tribal government office when responding to this permit eligibility condition.

Tribal Historic Preservation Officers:

Mescalero Apache Tribe
P.O. Box 227
Mescalero, New Mexico 88340

Pueblo of Sandia Environment Department
Attn: Frank Chaves, Environment Director
481 Sandia Loop
Bernalillo, New Mexico 87004

Pueblo of Isleta
Department of Cultural and Historic Preservation
Attn: Dr. Henry Walt, THPO
P.O. Box 1270
Isleta NM 87022

Water Resources Division Manager
Pueblo of Santa Ana
2 Dove Road
Santa Ana Pueblo, New Mexico 87004

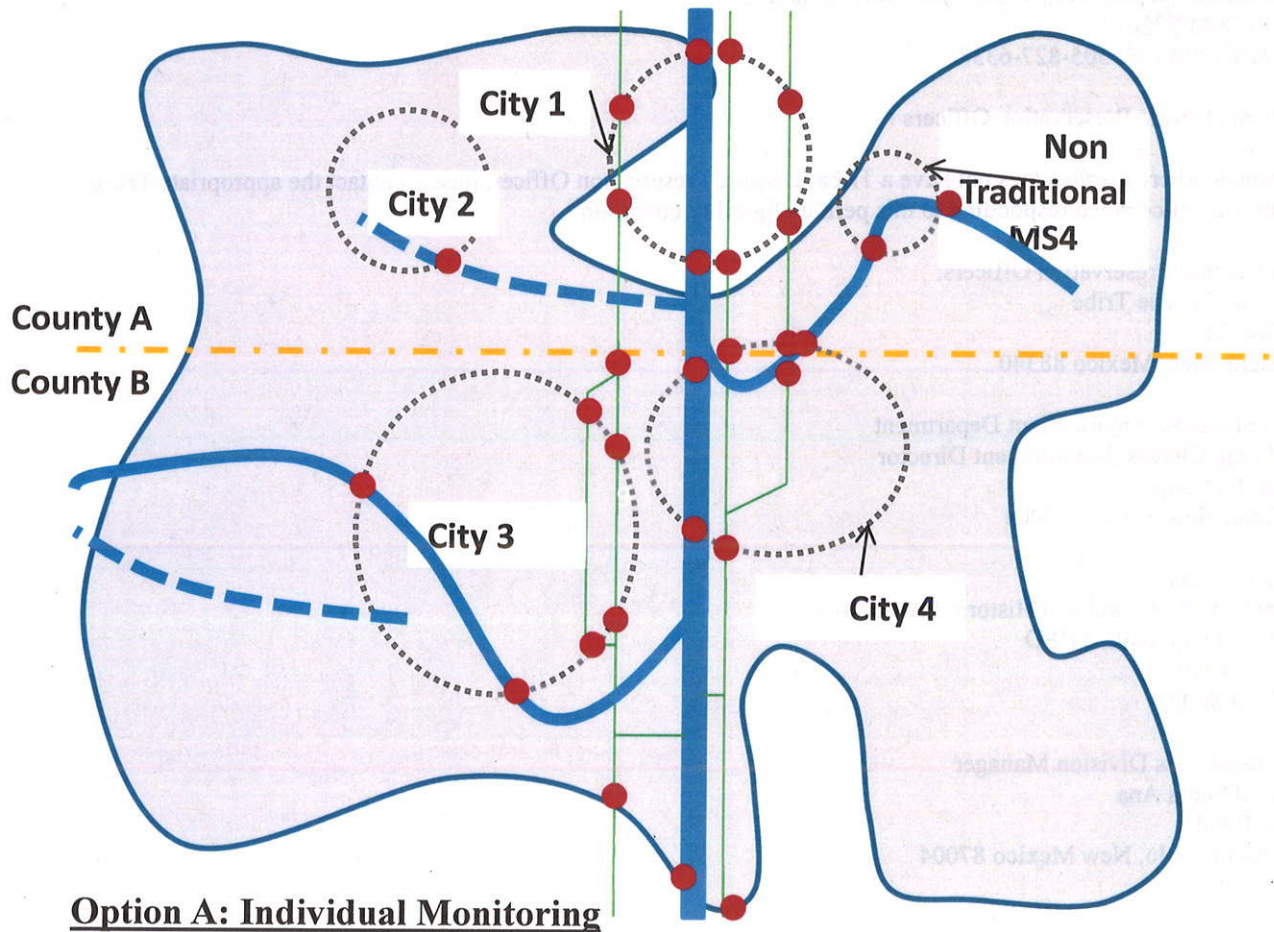
For more information:

National Association of Tribal Historic
Preservation Officers
P.O. Box 19189
Washington, DC 20036-9189
Phone: (202) 628-8476
Fax: (202) 628-2241

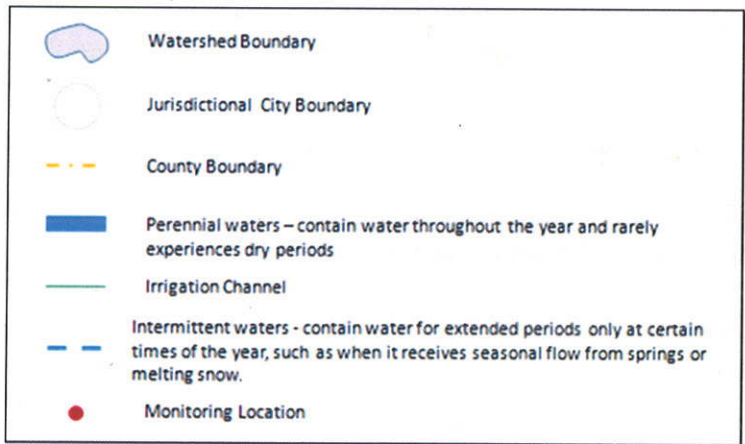
IV. Advisory Council on Historic Preservation

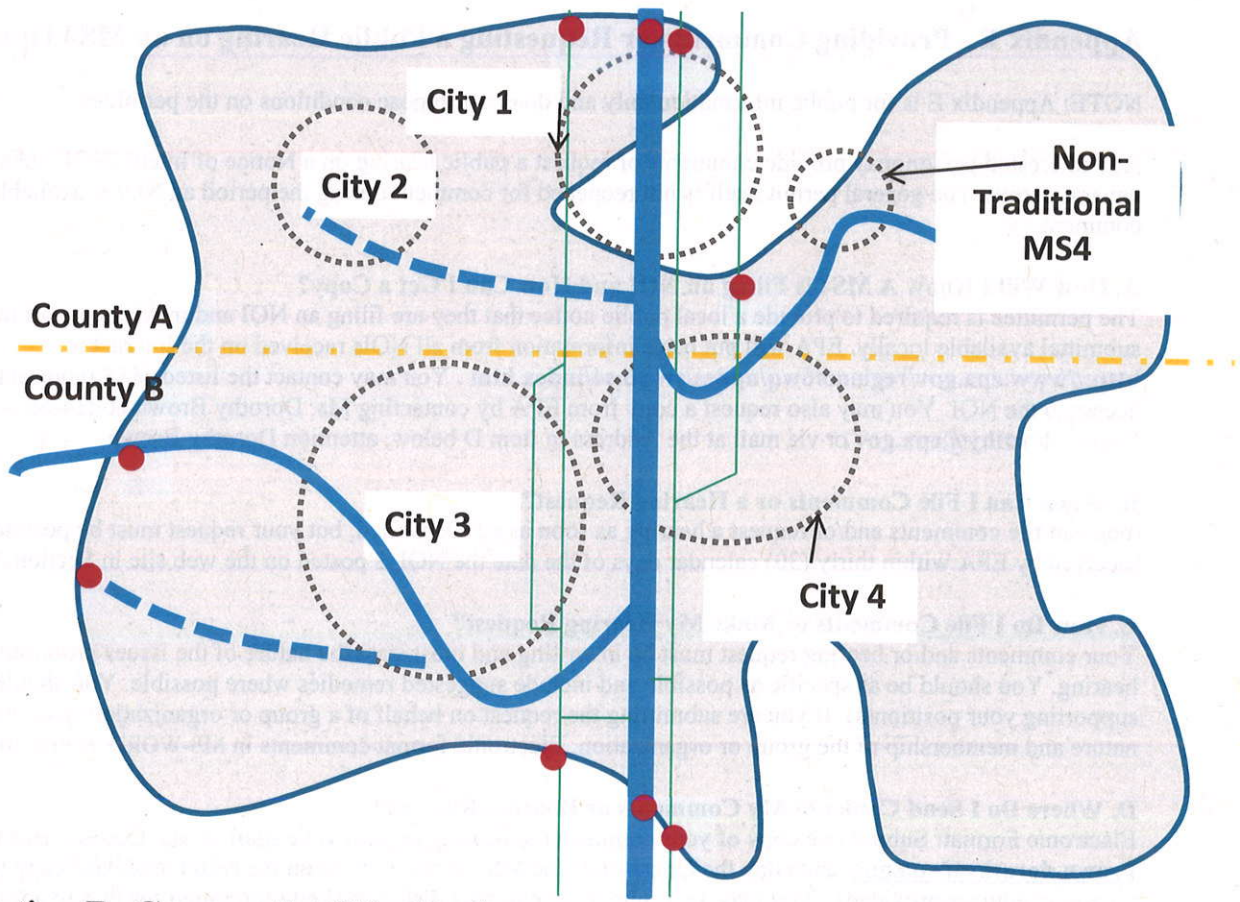
Advisory Council on Historic Preservation, 1100 Pennsylvania Avenue, NW., Suite 803,
Washington, DC 20004 Telephone: (202) 606-8503, Fax: (202) 606-8647/8672, E-mail:
achp@achp.gov

Appendix D - Suggested Initial Phase Sampling Location Concepts – Wet Weather Monitoring

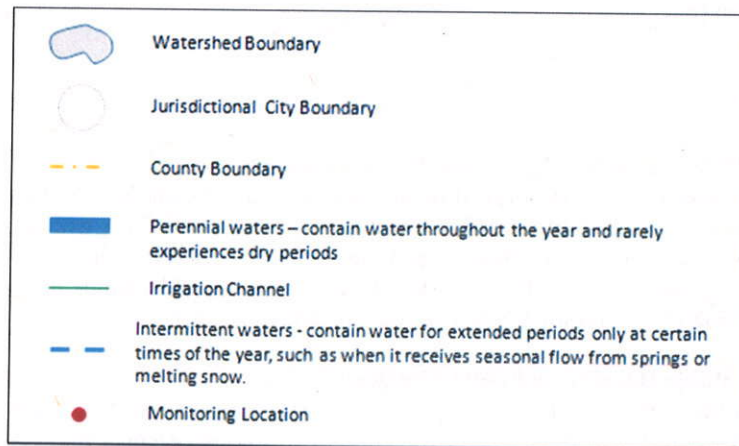


Option A: Individual Monitoring





Option B: Cooperative Monitoring



Appendix E - Providing Comments or Requesting a Public Hearing on an MS4 Operator's NOI

NOTE: Appendix E is for public information only and does not impose conditions on the permittee.

Any interested person may provide comments or request a public hearing on a Notice of Intent (NOI) submitted under this general permit. The general permit itself is not reopened for comment during the period an NOI is available for review and comment.

A. How Will I Know A MS4 is Filing an NOI and How Can I Get a Copy?

The permittee is required to provide a local public notice that they are filing an NOI and make a copy of the draft NOI submittal available locally. EPA will put basic information from all NOIs received on the Internet at: <http://www.epa.gov/region6/6wq/npdes/sw/sms4/index.htm> . You may contact the listed MS4 representative for local access to the NOI. You may also request a copy from EPA by contacting Ms. Dorothy Brown at 214-665-8141 or brown.dorothy@epa.gov or via mail at the Address in Item D below, attention Dorothy Brown.

B. When Can I File Comments or a Hearing Request?

You can file comments and/or request a hearing as soon as a NOI is filed, but your request must be postmarked or physically received by EPA within thirty (30) calendar days of the date the NOI is posted on the web site in Section A.

C. How Do I File Comments or Make My Hearing Request?

Your comments and/or hearing request must be in writing and must state the nature of the issues proposed to be raised in the hearing. You should be as specific as possible and include suggested remedies where possible. You should include any data supporting your position(s). If you are submitting the request on behalf of a group or organization, you should describe the nature and membership of the group or organization. Electronic format comments in MS-WORD or PDF format are preferred.

D. Where Do I Send Copies of My Comments or Hearing Request?

Electronic Format: Submit one copy of your comments or hearing request via e-mail to Ms. Dorothy Brown at brown.dorothy@epa.gov and copy the Operator of the MS4 at the address on the NOI (send hard copy to MS4 Operator if no e-mail address provided). You may also submit via compact disk or diskette formatted for PCs to addresses for hard copy below. (Hard Copy: You must send an original and one copy of your comments or hearing request to EPA at the address below and a copy to the Operator of the MS4 at the address provided on the NOI)

U.S. EPA Region 6
Water Quality Protection Division (6WQ-NP)
Attn: Dorothy Brown
1445 Ross Ave., Suite 1200
Dallas, TX 75202

E. How Will EPA Determine Whether or Not To Hold a Public Hearing?

EPA will evaluate all hearing requests received on an NOI to determine if a significant degree of public interest exists and whether issues raised may warrant clarification of the MS4 Operator's NOI submittal. EPA will hold a public hearing if a significant amount of public interest is evident. EPA may also, at the Agency's discretion, hold either a public hearing or an informal public meeting to clarify issues related to the NOI submittal. EPA may hold a single public hearing or public meeting covering more than one MS4 (e.g., for all MS4s in an Urbanized Area, etc.).

F. How Will EPA Announce a Public Hearing or Public Meeting?

EPA will provide public notice of the time and place for any public hearing or public meeting in a major newspaper with local distribution and via the Internet at <http://www.epa.gov/region6/6wq/npdes/sw/sms4/index.htm>.

G. What Will EPA Do With Comments on an NOI?

EPA will take all comments made directly or in the course of a public hearing or public meeting into consideration in determining whether or not the MS4 that submitted the NOI is appropriately covered under the general permit. The MS4 operator will have the opportunity to provide input on issues raised. The Director may require the MS4 operator to supplement or amend the NOI submittal in order to be authorized under the general permit or may direct the MS4 Operator to submit an individual permit application. A summary of issues raised and EPA's responses will be made available online at <http://www.epa.gov/region6/6wq/npdes/sw/sms4/index.htm>. A hard copy may also be requested by contacting Ms. Dorothy Brown (see paragraph D)

Appendix F - Minimum Quantification Levels (MQL's)

The following Minimum Quantification Levels (MQL's) are to be used for reporting pollutant data for NPDES permit applications and/or compliance reporting.

POLLUTANTS	MQL µg/l	POLLUTANTS	MQL µg/l
METALS, RADIOACTIVITY, CYANIDE and CHLORINE			
Aluminum	2.5	Molybdenum	10
Antimony	60	Nickel	0.5
Arsenic	0.5	Selenium	5
Barium	100	Silver	0.5
Beryllium	0.5	Thallium	0.5
Boron	100	Uranium	0.1
Cadmium	1	Vanadium	50
Chromium	10	Zinc	20
Cobalt	50	Cyanide	10
Copper	0.5	Cyanide, weak acid dissociable	10
Lead	0.5	Total Residual Chlorine	33
Mercury (*)	0.0005 0.005		
DIOXIN			
2,3,7,8-TCDD	0.00001		
VOLATILE COMPOUNDS			
Acrolein	50	1,3-Dichloropropylene	10
Acrylonitrile	20	Ethylbenzene	10
Benzene	10	Methyl Bromide	50
Bromoform	10	Methylene Chloride	20
Carbon Tetrachloride	2	1,1,2,2-Tetrachloroethane	10
Chlorobenzene	10	Tetrachloroethylene	10
Clorodibromomethane	10	Toluene	10
Chloroform	50	1,2-trans-Dichloroethylene	10
Dichlorobromomethane	10	1,1,2-Trichloroethane	10
1,2-Dichloroethane	10	Trichloroethylene	10
1,1-Dichloroethylene	10	Vinyl Chloride	10
1,2-Dichloropropane	10		
ACID COMPOUNDS			
2-Chlorophenol	10	2,4-Dinitrophenol	50
2,4-Dichlorophenol	10	Pentachlorophenol	5
2,4-Dimethylphenol	10	Phenol	10
4,6-Dinitro-o-Cresol	50	2,4,6-Trichlorophenol	10

POLLUTANTS	MQL µg/l	POLLUTANTS	MQL µg/l
BASE/NEUTRAL			
Acenaphthene	10	Dimethyl Phthalate	10
Anthracene	10	Di-n-Butyl Phthalate	10
Benzidine	50	2,4-Dinitrotoluene	10
Benzo(a)anthracene	5	1,2-Diphenylhydrazine	20
Benzo(a)pyrene	5	Fluoranthene	10
3,4-Benzofluoranthene	10	Fluorene	10
Benzo(k)fluoranthene	5	Hexachlorobenzene	5
Bis(2-chloroethyl)Ether	10	Hexachlorobutadiene	10
Bis(2-chloroisopropyl)Ether	10	Hexachlorocyclopentadiene	10
Bis(2-ethylhexyl)Phthalate	10	Hexachloroethane	20
Butyl Benzyl Phthalate	10	Indeno(1,2,3-cd)Pyrene	5
2-Chloronaphthalene	10	Isophorone	10
Chrysene	5	Nitrobenzene	10
Dibenzo(a,h)anthracene	5	n-Nitrosodimethylamine	50
1,2-Dichlorobenzene	10	n-Nitrosodi-n-Propylamine	20
1,3-Dichlorobenzene	10	n-Nitrosodiphenylamine	20
1,4-Dichlorobenzene	10	Pyrene	10
3,3'-Dichlorobenzidine	5	1,2,4-Trichlorobenzene	10
Diethyl Phthalate	10		
PESTICIDES AND PCBS			
Aldrin	0.01	Beta-Endosulfan	0.02
Alpha-BHC	0.05	Endosulfan sulfate	0.02
Beta-BHC	0.05	Endrin	0.02
Gamma-BHC	0.05	Endrin Aldehyde	0.1
Chlordane	0.2	Heptachlor	0.01
4,4'-DDT and derivatives	0.02	Heptachlor Epoxide	0.01
Dieldrin	0.02	PCBs **	0.2
Alpha-Endosulfan	0.01	Toxaphene	0.3

(MQL's Revised November 1, 2007)

- (*) Default MQL for Mercury is 0.005 unless Part I of your permit requires the more sensitive Method 1631 (Oxidation / Purge and Trap / Cold vapor Atomic Fluorescence Spectrometry), then the MQL shall be 0.0005.
- (**) EPA Method 1668 should be utilized when PCB water column monitoring is conducted to determine compliance with permit requirements. Either the Arochlor test (EPA Method 8082) or USGS test method (8093) may be utilized for purposes of sediment sampling as part of a screening program, but must use EPA Method 1668 (latest revision) for confirmation and determination of specific PCB levels at that location.

Appendix G – Oxygen Saturation and Dissolved Oxygen Concentrations North Diversion Channel Area

Concentrations of dissolved oxygen in water at various atmospheric pressures and temperatures with 100 percent oxygen saturation, 54.3 percent oxygen saturation (associated with hypoxia and harassment of silvery minnows), and 8.7 percent oxygen saturation (associated with anoxia and lethality of silvery minnows) at the North Diversion Channel (NDC) (based on USGS DO website <<http://water.usgs.gov/software/DOTABLES/>> for pressures between 628 to 648 millimeters of mercury (Hg)). Source: Biological Consultation Cons. #22420-2011-F-0024-R001

Water temp. (°C)	100% Oxygen Saturation at NDC			54.3% saturation = Harassmen			8.7% saturation= 50%Lethality		
	628mmHg	638mmHg	648mmHg	628mmHg	638mmHg	648mmHg	628mmHg	638mmHg	648mmHg
0	12.1	12.3	12.5	6.6	6.7	6.8	1.1	1.1	1.1
1	11.7	11.9	12.1	6.4	6.5	6.6	1.0	1.0	1.1
2	11.4	11.6	11.8	6.2	6.3	6.4	1.0	1.0	1.0
3	11.1	11.3	11.5	6.0	6.1	6.2	1.0	1.0	1.0
4	10.8	11	11.2	5.9	6.0	6.1	0.9	1.0	1.0
5	10.5	10.7	10.9	5.7	5.8	5.9	0.9	0.9	0.9
6	10.3	10.4	10.6	5.6	5.8	5.0	0.9	0.9	0.9
7	10	10.2	10.3	5.4	5.5	5.6	0.9	0.9	0.9
8	9.8	9.9	10.1	5.3	5.4	5.5	0.9	0.9	0.9
8	9.5	9.7	9.6	5.2	5.3	5.3	0.8	0.8	0.9
9	9.3	9.5	9.6	5.0	5.2	5.2	0.8	0.8	0.8
10	9.1	9.2	9.4	4.9	5.0	5.1	0.8	0.8	0.8
11	8.9	9	9.2	4.8	4.9	5.0	0.8	0.8	0.8
12	8.7	8.8	9	4.7	4.8	4.9	0.8	0.8	0.8
13	8.5	8.6	8.8	4.8	4.7	4.8	0.7	0.7	0.0
14	8.3	8.4	8.8	4.5	4.6	4.7	0.7	0.7	0.7
15	8.1	8.3	0.4	4.4	4.5	4.6	0.7	0.7	0.7
16	8	8.1	8.2	4.3	4.4	4.5	0.7	0.7	0.7
17	7.8	7.9	8	4.2	4.3	4.3	0.7	0.7	0.7
18	7.6	7.8	7.9	4.1	4.2	4.3	0.7	0.7	0.7
19	7.5	7.6	7.7	4.1	4.1	4.2	0.7	0.7	0.7
20	7.3	7.4	7.6	4.0	4.0	4.1	0.6	0.6	0.7
21	7.2	7.3	7.4	3.9	4.0	4.0	0.6	0.6	0.6
22	7	7.2	7.3	3.8	3.9	4.0	0.6	0.6	0.6
23	6.9	7	7.1	3.7	3.8	3.9	0.6	0.6	0.6
24	6.8	6.9	7	3.7	3.7	3.6	0.6	0.6	0.6
25	6.7	6.8	6.9	3.6	3.7	3.7	0.6	0.6	0.6
26	6.5	6.6	6.8	3.5	3.6	3.7	0.6	0.6	0.8
27	6.4	6.5	6.6	3.5	3.5	3.6	0.6	0.8	0.8
28	6.3	6.4	6.5	3.4	3.5	3.5	0.5	0.6	0.8
29	6.2	6.3	6.4	3.4	3.4	3.5	0.5	0.5	0.8
30	6.1	6.2	6.3	3.3	3.4	3.4	0.5	0.5	0.8
31	6	6.1	6.2	3.3	3.3	3.4	0.5	0.5	0.5
32	5.0	6	6.1	3.2	3.3	3.3	0.5	0.5	0.5
33	5.8	5.9	6	3.1	3.2	3.3	0.5	0.5	0.5
34	5.7	5.6	5.9	3.1	3.1	3.2	0.5	0.5	0.5

ATTACHMENT 6

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the federal Clean Water Act, as amended, 33 U.S.C. §§1251 et seq., and the Massachusetts Clean Waters Act, as amended, Mass. Gen. Laws. ch. 21, §§26-53, the

Boston Water and Sewer Commission

is authorized to discharge from all of its new or existing separate storm sewers: 195 identified Separate Storm Sewer Outfalls and associated receiving waters are Listed in Attachment A to receiving waters named: Belle Island Inlet, Boston Harbor, Boston Inner Harbor, Brook Farm Brook, Bussey Brook, Canterbury Brook, Chandler's Pond, Charles River, Chelsea River, Cow Island Pond, Dorchester Bay, Fort Point Channel, Goldsmith Brook, Jamaica Pond, Little Mystic Channel, Mill Pond, Millers River, Mother Brook, Muddy River, Mystic River, Neponset River, Old Harbor, Patten's Cove, Reserved Channel, Sprague Pond, Stony Brook, Turtle Pond and unnamed wetlands, brooks and streams.

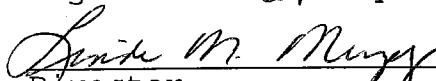
in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective 30 days from date of signature.


This permit and the authorization to discharge expire at midnight, five years from the effective date.

This permit consists of 20 pages and Attachment A in Part I including monitoring requirements, etc., and 35 pages in Part II including General Conditions and Definitions.

Signed this 29 day of September, 1999



Director
Office of Ecosystem Protection
Environmental Protection Agency
Region I
Boston, MA



Director, Division of
Watershed Management
Department of Environmental
Protection
Commonwealth of Massachusetts
Boston, MA

PART I. MUNICIPAL SEPARATE STORM SEWER SYSTEM

A. DISCHARGES THROUGH THE MUNICIPAL SEPARATE STORM SEWER SYSTEM AUTHORIZED UNDER THIS PERMIT

1. Permit Area. This permit covers all areas within the corporate boundary of the City of Boston or otherwise contributing to new or existing separate storm sewers owned or operated by the Boston Water and Sewer Commission, the "permittee".
2. Authorized Discharges. This permit authorizes all storm water discharges to waters of the United States from all existing or new separate storm sewer outfalls owned or operated by the permittee (existing outfalls are identified in Attachment A). This permit also authorizes the discharge of storm water commingled with flows contributed by wastewater or storm water associated with industrial activity provided such discharges are authorized under separate NPDES permits and are in compliance with applicable Federal, State and Boston Water and Sewer Commission regulations (Regulations Regarding the Use of Sanitary and Combined Sewers and Storm Drains of the Boston Water and Sewer Commission). The permittee shall provide a notification to EPA and MA DEP of all new separate storm sewer outfalls as they are activated and of all existing outfalls which are de-activated. The annual report (Part I.E.) will reflect all of the changes to the number of outfalls throughout the year.
3. Limitations on Coverage. Discharges of non-storm water or storm water associated with industrial activity through outfalls listed at Attachment A are not authorized under this permit except where such discharges are:
 - a. authorized by a separate NPDES permit; or
 - b. identified by and in compliance with Part I.B.2.g.2 of this permit.

B. STORM WATER POLLUTION PREVENTION & MANAGEMENT PROGRAMS

The permittee is required to develop and implement a storm water pollution prevention and management program designed to reduce, to the maximum extent practicable the discharge of pollutants from the Municipal Separate Storm Sewer System. The permittee may implement Storm Water Management Program (SWMP) elements through participation with other public agencies or private entities in cooperative efforts satisfying the requirements of this permit in lieu of creating duplicate program elements. Either cumulatively, or separately, the permittee's storm water pollution prevention and management programs shall satisfy the requirements of Part I.B.1-7. below for all portions of the Municipal Separate Storm Sewer System (MS4) authorized to discharge under this permit and shall reduce the discharge of pollutants to the maximum extent practicable. The storm water pollution prevention and management program requirements of this Part shall be implemented through the SWMP submitted as part of the permit application and revised as necessary.

1. POLLUTION PREVENTION REQUIREMENTS The permittee shall develop and implement the following pollution prevention measures as they relate to discharges to the separate storm sewer:
 - a. Development The permittee shall assist and coordinate with the appropriate municipal agencies with jurisdiction over land use to ensure that municipal approval of all new development and significant redevelopment projects within the City of Boston which discharge to the MS4 is conditioned on due consideration of water quality impacts. The permittee shall cooperate with appropriate municipal agencies to ensure that development activities conform to applicable state and local regulations, guidance and policies relative to storm water discharges to separate storm sewers. Such requirements shall limit increases in the discharge of pollutants in storm water as a result of new development, and reduce the discharge of pollutants in storm water as a result of redevelopment.
 - b. Used Motor Vehicle Fluids The permittee shall coordinate with appropriate municipal agencies or private entities to assist in the implementation of a program to collect used motor vehicle fluids (including, at a minimum, oil and antifreeze) for recycle, reuse, or proper disposal. Such program shall be readily available to all residents of the City of Boston and publicized and promoted at least annually.

c. Household Hazardous Waste (HHW) The permittee shall coordinate with appropriate municipal agencies or private entities to assist in the implementation of a program to collect household hazardous waste materials (including paint, solvents, pesticides, herbicides, and other hazardous materials) for recycle, reuse, or proper disposal and promote proper handling and disposal. Such program shall be readily available to all private residents. This program shall be publicized and promoted at least annually.

2. STORM WATER MANAGEMENT PROGRAM REQUIREMENTS: The permittee shall continue to implement the Storm Water Management Program (SWMP) which it described in its May 17, 1993 storm water permit application and updated June 1995 and June 1998 in accordance with Section 402(p)(3)(B) of the Clean Water Act (CWA or "the Act"). This SWMP outlined in the permit application, including all updates, is approvable upon issuance of this permit.

In accordance with Part I.E. Annual Report, no later than **March 1, 2000** the permittee shall describe all the updates which it has conducted and all additional measures it will take to satisfy the requirements of this permit and the goals of the storm water management program. The Controls and activities identified in the SWMP shall clearly identify goals, a description of the controls or activities, and a description of the roles and responsibilities of other entities' areas of applicability on a system, jurisdiction, or specific area basis. The permittee will specifically address its roles and activities as they relate to portions of the SWMP which are not under its direct control (e.g. street sweeping, HHW collection, development, redevelopment). The permit may be modified to designate the agencies that administer these programs as co-permittees or require a separate permit. These entities would then be responsible for applicable permit conditions and requirements. The SWMP, and all approved updates, are hereby incorporated by reference and shall be implemented in a manner consistent with the following requirements:

a. Statutory Requirements: The SWMP shall include controls necessary to reduce the discharge of pollutants from the Municipal Separate Storm Sewer System to the Maximum Extent Practicable (MEP). Controls may consist of a combination of best management practices, control techniques, system design and engineering methods, and such other provisions as the permittee, Director or the State determines appropriate. The various components of the SWMP, taken as a whole (rather than individually), shall be sufficient to meet this standard. The SWMP shall be updated as necessary to ensure conformance with the requirements of CWA § 402(p)(3)(B). The permittee shall select measures or controls to satisfy the following water quality prohibitions:

No discharge of toxics in toxic amounts.

No discharge of pollutants in quantities that would cause a violation of State water quality standards.

No discharge of either a visible oil sheen, foam, or floating solids, in other than trace amounts.

b. Structural Controls: The permittee shall operate and maintain all storm water structural controls which it owns or operates in a manner so as to reduce the discharge of pollutants to the MEP.

c. Areas of New Development and Significant Redevelopment: The permittee shall continue to implement its site plan review process and ensure compliance with its existing regulations. The permittee shall also coordinate with appropriate municipal agencies to assist in the development, implementation, and enforcement of controls to minimize the discharge of pollutants to the separate storm sewer system from areas of new development and significant re-development during and after construction. The permittee shall assist appropriate municipal agencies to ensure that development activities conform to applicable state and local regulations, guidance and policies relative to storm water discharges to separate storm sewers.

d. Roadways: The permittee shall coordinate with appropriate agencies to assist in the implementation of measures to ensure that roadways and highways are operated and maintained in a manner so as to minimize the discharge of pollutants to the separate storm sewer system (including those related to deicing or sanding activities).

e. Flood Control Projects: The permittee shall ensure that any flood management projects within its direct control are completed after consideration of impacts on the water quality of receiving waters. The permittee shall also evaluate the feasibility of retro-fitting existing structural flood control devices it owns or operates to provide additional pollutant removal from storm water.

f. Pesticide, Herbicide, and Fertilizer Application: The permittee shall cooperate with appropriate municipal agencies to evaluate existing measures to reduce the discharge of pollutants related to the application of pesticides, herbicides, and fertilizers applied by municipal or public agency employees or contractors to public right of ways, parks, and other municipal facilities. The permittee shall evaluate the necessity to implement controls to reduce discharge of pollutants related to the application and distribution of pesticides, herbicides, and fertilizers by commercial and wholesale distributors and applicators. The permittee shall require controls, within its authority, as necessary.

g. Illicit Discharges and Improper Disposal: The permittee shall continue to implement its program to detect and remove illicit discharges (or require the discharger to the MS4 to remove or obtain a separate NPDES permit for the discharge) and improper disposal into the separate storm sewer.

1. The permittee shall effectively prohibit non-storm water discharges to the Municipal Separate Storm Sewer System, other than those authorized under this permit or a separate NPDES permit.

2. Unless identified by either the permittee, the Director, or the State as significant sources of pollutants to waters of the United States, the following non-storm water discharges are authorized to enter the MS4. As necessary, the permittee may incorporate appropriate control measures in the SWMP to ensure these discharges are not significant sources of pollutants to waters of the United States.

- (a) water line flushing;
- (b) landscape irrigation;
- (c) diverted stream flows;
- (d) rising ground waters;
- (e) uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20)) to separate storm sewers;

- (f) uncontaminated pumped ground water;
- (g) discharges from potable water sources;
- (h) foundation drains;
- (i) uncontaminated air conditioning or compressor condensate;
- (j) irrigation water;
- (k) uncontaminated springs;
- (l) water from crawl space pumps;
- (m) footing drains;
- (n) lawn watering;
- (o) non-commercial car washing;
- (p) flows from riparian habitats and wetlands;
- (q) swimming pool discharges which have been dechlorinated;
- (r) street wash waters;
- (s) discharges or flows from emergency fire fighting activities;
- (t) fire hydrant flushing; and
- (u) building washdown water which does not contain detergents.

3. The permittee shall prevent unpermitted discharges of dry and wet weather overflows from sanitary sewers into the MS4. The permittee shall implement a program to identify and limit the infiltration of seepage from sanitary sewers into the MS4.

4. The permittee shall prohibit the discharge or disposal of used motor vehicle fluids, household hazardous wastes, grass clippings, leaf litter, and animal wastes into separate storm sewers. The permittee must demonstrate that the prohibition is publicized at least annually, and that the information is available for non-English speaking residents of the City.

5. The permittee shall require the elimination of illicit connections as expeditiously as possible and the immediate cessation of improper disposal practices upon identification of responsible parties. The permittee shall describe its procedure for identification and elimination of illicit discharges. This information shall be included in the annual report required under Part I.E. below. Where elimination of an illicit connection within sixty (60) days is not possible, the permittee shall establish a schedule for the expeditious removal of the discharge. In the interim, the permittee shall take all reasonable and prudent measures to minimize the discharge of pollutants to the MS4.

h. Spill Prevention and Response: The permittee shall cooperate with appropriate federal, state, and municipal agencies in the development and implementation of a program to prevent, contain, and respond to spills that may discharge into or through the MS4. The spill response program may include a combination of spill response actions by the permittee (and/or other public or private entities), and requirements for private entities through the permittee's sewer use regulations. Except as explicitly authorized, materials from spills may not be discharged to Waters of the United States.

i. Industrial & High Risk Runoff: In cooperation with the DEP and EPA, the permittee shall implement a program to identify, monitor, and control pollutants in storm water discharges to the MS4 from municipal landfills; hazardous waste treatment, storage, disposal and recovery facilities and facilities that are subject to EPCRA Title III, Section 313; and any other industrial or commercial discharge the permittee determines is contributing a substantial pollutant loading to the MS4. The program shall include:

1. priorities and procedures for inspections and establishing and implementing control measures for such discharges;
2. a monitoring (or self-monitoring) program for facilities identified under this section, including the collection of quantitative data on the following constituents:
 - (a) any pollutants for which the discharger may monitor or which are limited in an existing NPDES permit for an identified facility;
 - (b) any information on discharges required under 40 CFR 122.21(g)(7)(iii) and (iv);
 - (c) any pollutant the permittee has a reasonable expectation is discharged in substantial quantity from the facility to the separate storm sewer system.

Data collected by the industrial facility to satisfy the monitoring requirements of an NPDES or State discharge permit may be used to satisfy this requirement. The permittee may require the industrial facility to conduct self-monitoring to satisfy this requirement.

j. Construction Site Runoff: The permittee shall continue to implement its site plan review process and ensure compliance with its existing regulations. The permittee shall also cooperate with appropriate municipal agencies in the development and implementation of a program to reduce the discharge of pollutants from construction sites to the MS4, including:

1. requirements for the use and maintenance of appropriate structural and non-structural best management practices to reduce pollutants discharged to the MS4 during the time construction is underway;
2. procedures for site planning which incorporate considerations for potential short term and long term water quality impacts and measures to minimize these impacts;
3. prioritized inspection of construction sites and enforcement of control measures as required by the permittee;
4. providing assistance to appropriate municipal agencies in the development of education and training measures for construction site operators; and
5. providing assistance to appropriate municipal agencies in the development of a notification to appropriate building permit applicants of their potential responsibilities under the NPDES permitting program for construction site runoff.

k. Public Education: The permittee, in coordination with other appropriate municipal agencies, shall implement a public education program including, but not limited to:

1. A program to promote, publicize, and facilitate public reporting of the presence of illicit discharges or improper disposal of materials (e.g. industrial and commercial wastes, trash, used motor vehicle fluids, leaf litter, grass clippings, animal wastes, etc.) into the MS4 (e.g. curb inlet stenciling, citizen "streamwatch" groups, "hotlines" for reporting dumping, outreach materials included in billings, advertising on public access/government cable channels, etc.);

2. a program to promote, publicize, and facilitate the proper management and disposal of used oil, vehicle fluids and lubricants, and household hazardous wastes;

3. a program to promote, publicize, and facilitate the proper use, application, and disposal of pesticides, herbicides, and fertilizers;

4. where applicable and feasible, the permittee should publicize those best management practices (including but not limited to the use of reformulated or redesigned products, substitution of less toxic materials, and improvements in housekeeping) developed by municipal agencies or environmental organizations that facilitate better use, application, and/or disposal of materials identified in k.1 - k.3 of this section.

3. DEADLINES FOR PROGRAM COMPLIANCE: Except as provided in PART II, and Part I.B.7. the permittee shall continue to implement its Storm Water Management Program.
4. ROLES AND RESPONSIBILITIES OF PERMITTEE: The Storm Water Management Program shall clearly identify the roles and responsibilities of the permittee and appropriate municipal agencies impacting its efforts to comply with this permit.
5. LEGAL AUTHORITY: The permittee has demonstrated and shall maintain legal authority to control discharges to and from those portions of the MS4 which it owns or operates. This legal authority may be a combination of statute, regulation, permit, contract, or an order to:
- a. Control the contribution of pollutants to the MS4 by storm water discharges associated with industrial activity and the quality of storm water discharged from sites of industrial activity;
 - b. Prohibit illicit discharges to the MS4;
 - c. As necessary, control the discharge of spills and the dumping or disposal of materials other than storm water (e.g. industrial and commercial wastes, trash, used motor vehicle fluids, leaf litter, grass clippings, animal wastes, etc.) into the MS4;
 - d. Control through interagency or inter-jurisdictional agreements the contribution of pollutants from one portion of the MS4 to another;

e. Require compliance with conditions in regulations, permits, contracts or orders; and

f. Carry out all inspection, surveillance and monitoring procedures necessary to determine compliance with permit conditions.

6. STORM WATER MANAGEMENT PROGRAM RESOURCES The permittee shall provide adequate finances, staff, equipment, and support capabilities to implement its SWMP.

7. STORM WATER MANAGEMENT PROGRAM REVIEW AND MODIFICATION

a. Demonstration Project: Within 180 days of the effective date of the permit, the permittee shall submit a plan to assess the effectiveness of existing non-structural BMPs. This plan shall identify a drainage area or sub-area which has undergone an investigation for illicit connections and is believed to be reasonably free of sanitary sewer influence. The plan shall clearly specify activities to be conducted, responsible parties and method of assessment. The project shall commence within one year of the effective date of the permit and continue for at least one year. Within 90 days of project completion the permittee shall submit a report which identifies measures undertaken and effectiveness of those measures.

b. Program Review: The permittee shall participate in an annual review of its current SWMP in conjunction with preparation of the annual report required under Part I.E. This annual review shall include:

1. A review of the status of program implementation and compliance with program elements and other permit conditions as necessary;
2. An assessment of the effectiveness of controls established by the SWMP;
3. A review of monitoring data and any trends in estimated cumulative annual pollutant loadings;
4. An assessment of any SWMP modifications needed to comply with the CWA §402(p)(3)(B)(iii) requirement to reduce the discharge of pollutants to the maximum extent practicable (MEP).
5. An assessment of staff and funding levels adequate to comply with the permit conditions.

c. Program Modification: The permittee may modify the SWMP in accordance with the following procedures:

1. The approved SWMP shall not be modified by the permittee(s) without the prior approval of the Director, unless in accordance with items c.2. or c.3. below.

2. Modifications adding (but not subtracting or replacing) components, controls, or requirements to the approved SWMP may be made by the permittee at any time upon written notification to the Director.

3. Modifications replacing or eliminating an ineffective or infeasible BMP specifically identified in the SWMP with an alternative BMP may be requested at any time. Unless the Director comments on or denies the request within 60 days from submittal, the permittee shall implement the modification and proposed schedule. Such requests must include the following:

(a) an analysis of why the BMP is ineffective or infeasible (including cost considerations),

(b) expectations on the effectiveness of the replacement BMP and proposed schedule for implementation, and

(c) an analysis of why the replacement of the BMP is expected to achieve the goals of the BMP to be replaced,

(d) in the case of an elimination of the BMP, an analysis of why the elimination is not expected to cause or contribute to a water quality impact.

4. Modification requests and/or notifications must be made in writing and signed in accordance with Part II.D.2.

d. Modifications required by the Permitting Authority:
The Director or the State may require the permittee to modify the SWMP as needed to:

1. Address impacts on receiving water quality caused, or contributed to, by discharges from the MS4;
2. Include more stringent requirements necessary to comply with new State or Federal statutory or regulatory requirements; or
3. Include such other conditions deemed necessary by the Director to comply with the goals and requirements of the Clean Water Act.

Modifications required by the Director shall be made in writing and set forth a time schedule for the permittee to develop the modification(s).

C. WET WEATHER MONITORING AND REPORTING REQUIREMENTS

1. Storm Event Discharges. The permittee shall implement a wet-weather monitoring program for the MS4 to provide data necessary to assess the effectiveness and adequacy of control measures implemented under the SWMP; estimate annual cumulative pollutant loadings from the MS4; estimate event mean concentrations and seasonal pollutants in discharges from all outfalls; identify and prioritize portions of the MS4 requiring additional controls, and identify water quality improvements or degradation. Improvement in the quality of discharges from the MS4 will be assessed based on the monitoring information required by this section, along with any additional pertinent information. There have been no numeric effluent limits established for this permit. Further monitoring or effluent limits may be established to ensure compliance with the goals of the Clean Water Act, appropriate Water Quality Standards, or applicable technology based requirements.

a. Representative Monitoring: Within 90 days after the effective date of this permit, the permittee shall submit a proposed sampling plan. The permittee shall monitor a minimum of five (5) representative drainage areas to characterize the quality of storm water discharges from the MS4. The proposed sampling plan shall consider monitoring each site three (3) times a year for a period of at least two years. All five sites shall be completed within the five year permit term and may be done partially or consecutively. The permittee shall choose locations representing the different land uses or is representative of drainage areas served by the MS4. The permittee may submit an alternative plan for sampling frequency only subject to the approval of EPA and DEP. At a minimum, the monitoring program shall analyze for the following parameters: pH, Temperature, Dissolved Oxygen, Total Suspended Solids, BOD5, COD, Fecal Coliform, Total Nitrogen, Nitrate/Nitrite, Ammonia (as N), Total Phosphorous, Ortho-Phosphate, Oil and Grease, Total Petroleum Hydrocarbons, Surfactants, Fluoride, Copper, and Zinc. Unless commented on or denied by the Director within 60 days after its submittal, the proposed sampling plan shall be deemed approved. This monitoring program shall commence no later than 180 days from the effective date of the permit unless otherwise specified by EPA and DEP. Subsequent monitoring locations and parameters for the remainder of the permit term shall be determined based upon the results of these sampling locations and other water quality information available to EPA, DEP and the permittee.

b. Receiving Water Quality Monitoring. The permittee shall monitor a minimum of four (4) receiving waters three (3) times a year throughout the permit term to characterize the water quality impacts of storm water discharges from the MS4. Sampling shall be conducted during a storm event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (0.1 inch) storm event. Within 90 days after the effective date of this permit, the permittee shall submit its proposed sampling plan. At a minimum, the monitoring program shall analyze for the following parameters: pH, Temperature, Dissolved Oxygen, Total Suspended Solids, BOD5, COD, Fecal Coliform, Total Nitrogen, Nitrate/Nitrite, Ammonia (as N), Total Phosphorous, Ortho-Phosphate, Oil and Grease, Total Petroleum Hydrocarbons, Surfactants, Fluoride, Copper, and Zinc. Unless commented on or denied by the Director within 60 days after its submittal, the proposed sampling plan shall be deemed approved. This monitoring program shall commence no later than six months after the effective date of the permit.

- c. Alternate Representative Monitoring: Monitoring locations may be substituted for just cause during the term of the permit. Requests for alternate monitoring locations by the permittee shall be made to the Director in writing and include the rationale for the requested monitoring station relocation. Unless commented on or denied by the Director, use of an alternate monitoring location may commence sixty (60) days from the date of the request.
2. Storm Event Data: For Part I.C.1.a Data shall be collected to estimate pollutant loadings and event mean concentrations for each parameter sampled. The permittee shall maintain records of the date and duration (hours) of the storm event sampled; rainfall measurements or estimates (inches) of the storm event which generated the sampled runoff; the duration (hours) between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event; and the total estimated volume (in gallons) of the discharge sampled. If manual sampling is employed, the permittee shall record physical observations of the discharge such as color and smell; and visible water quality impacts such as floatables, oil sheen, or evidence of sedimentation in the vicinity of the outfall (e.g. sandbars).
3. Sample Type, Collection, and Analysis: The following requirements apply to samples collected pursuant to Part I.C.1.a.
- a. For discharges from holding ponds or other impoundments with a retention period greater than 24 hours, (estimated by dividing the volume of the detention pond by the estimated volume of water discharged during the 24 hours previous to the time that the sample is collected) a minimum of one grab sample may be taken.
- b. Grab samples shall be used for the analysis of pH, temperature, cyanide, total phenols, residual chlorine, oil & grease, fecal coliform, and fecal streptococcus. For all other parameters, data shall be reported for flow weighted composite samples of the entire event or, at a minimum, the first three hours of discharge.

c. All such samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. Composite samples may be taken with a continuous sampler or as a combination of a minimum of three sample aliquots taken in each hour of discharge for the entire discharge or for the first three hours of the discharge, with each aliquot being separated by a minimum period of fifteen minutes.

d. Analysis and collection of samples shall be conducted in accordance with the methods specified at 40 CFR Part 136. Where an approved Part 136 method does not exist, any available method may be used.

4. Sampling Waiver. When the permittee is unable to collect samples required by Part I.C.1.a due to adverse climatic conditions, the discharger must submit, in lieu of sampling data, a description of why samples could not be collected, including available documentation of the event. Adverse climatic conditions which may prohibit the collection of samples include weather conditions that create dangerous conditions for personnel (such as local flooding, high winds, hurricane, tornadoes, electrical storms, etc.) or otherwise make the collection of a sample impracticable (drought, extended frozen conditions, etc.).
5. Sampling Results. The permittee shall record the results of sampling and assessment of the data in a report and submit results with its Annual Report.
6. Wet Weather Screening: The permittee shall develop and implement a program to identify, investigate, and address areas within their jurisdiction that may be contributing excessive levels of pollutants to the MS4 as a result of rainfall or snow melt. Screening shall be conducted at anytime precipitation causes a flow from the storm sewer. At a minimum the wet weather screening program:
 - a. shall screen all major outfalls at least once during the permit term;
 - b. shall record the structural integrity of the outfall (if visible); physical observations of the discharge (if visible) such as color and smell; and visible water quality impacts such as floatables, oil sheen, or evidence of sedimentation in the vicinity of the outfall (e.g. sandbars).

c. shall summarize the results of the program in its Annual Report.

d. The permittee may submit an alternate wet weather screening pilot program on a watershed or sub-watershed basis. The pilot project concept must be submitted to EPA and DEP within 90 days of the effective date of the permit. The permittee shall identify reasons it believes that a system wide screening program would not be effective. The pilot project may be conducted in conjunction with Receiving Water Quality Monitoring (C.1.b.), but not Representative Monitoring (C.1.a.)

D. DRY WEATHER DISCHARGES

1. Dry Weather Screening Program: At least once during the permit term, the permittee shall inspect all major outfalls, or nearest upstream location not subject to tidal influence or backflow, during dry weather to identify those outfalls with dry weather flow. Dry weather screening shall be conducted when there has been no greater than 0.10 inches of precipitation in the 72 hours prior to screening. The permittee shall record the structural integrity of the outfall (if visible). If flow is observed, the permittee shall record physical observations such as color, visible sheen, turbidity, floatables, smell, and an estimate of flow. If sewage is suspected, the permittee shall develop a schedule for follow-up activities to eliminate the source as soon as is practicable. The permittee shall summarize the results in its Annual Report
2. Screening Procedures: Screening methodology need not conform to the protocol at 40 CFR §122.26(d)(1)(iv)(D) or sample and collection methods of 40 CFR §136.
3. Follow-up on Dry Weather Screening Results: Follow-up activities shall be prioritized on the basis of:
 - a. magnitude and nature of the suspected discharge;
 - b. sensitivity of the receiving water; and
 - c. other factors the permittee deems appropriate.
4. The permittee shall summarize the results of dry weather screening and submit with its Annual Report.

E. ANNUAL REPORT:

The permittee shall prepare and submit an annual report to be submitted by no later than **March 1, 2000** and annually thereafter. The report shall include the following separate sections, with an overview for the entire MS4:

1. The status of implementing the storm water management program(s);
2. Proposed changes to the storm water management program(s);
3. Revisions, if necessary, to the assessments of controls and the fiscal analysis reported in the permit application under 40 CFR 122.26(d)(2)(iv) and (d)(2)(v);
4. A summary of the data, including monitoring or screening data, that is accumulated throughout the reporting year;
5. A revised list of all current separate storm sewer outfalls and their locations, reflecting changes of the previous year.
6. Annual expenditures for the reporting period, with a breakdown of the major elements of the storm water management program, and the budget for the year following each annual report as well as an assessment of adequacy of staffing and equipment;
7. A summary describing the number and nature of enforcement actions, inspections, and public education programs;
8. Identification of water quality improvements or degradation attributable to the permittee;
9. An analysis of the effectiveness and removal efficiencies of structural controls owned or operated by the permittee (such as the off-line particle separator in Fenwood Road); and,

10. An update on the illicit connection program to include the total number of identified connections with an estimate of flow for each, total number of connections found in the reporting period to include how they were found (i.e. citizen complaint, routine inspection), number of connections corrected in the reporting period to include total estimated flow, and the costs of such repairs to include how the repairs were financed (i.e. by the permittee, costs provided to the permittee by the responsible party, repairs effected and financed by the responsible party). As an attachment to the report, the permittee should submit any existing tracking system information.

F. CERTIFICATION AND SIGNATURE OF REPORTS

All reports required by the permit and other information requested by the Director shall be signed and certified in accordance with the General Conditions-Part II of this permit.

G. REPORT SUBMISSION

1. Original signed copies of all notifications and reports required herein, shall be submitted to the Director at the following address:

U.S. Environmental Protection Agency
NPDES PROGRAMS (SPA)
P.O. Box 8127
Boston, MA 02114

2. Signed copies of all notifications and reports shall be submitted to the State at:

Massachusetts Department of Environmental Protection
1 Winter Street
Boston, MA 02108
Attn: Mr. Steve Lipman

and

Massachusetts Department of Environmental Protection
Metro Boston/Northeast Regional Office
205A Lowell Street
Wilmington, MA 01887
Attn: Mr. Sabin Lord

H. RETENTION OF RECORDS

The permittee shall retain all records of all monitoring information, copies of all reports required by this permit and records of all other data required by or used to demonstrate compliance with this permit, until at least three years after coverage under this permit terminates. This period may be modified by alternative provisions of this permit or extended by request of the Director at any time. The permittee shall retain the latest approved version of the SWMP developed in accordance with Part I of this permit until at least three years after coverage under this permit terminates.

I. STATE PERMIT CONDITIONS

1. This Discharge Permit is issued jointly by the U. S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection under Federal and State law, respectively. As such, all the terms and conditions of this permit are hereby incorporated into and constitute a discharge permit issued by the Commissioner of the Massachusetts DEP pursuant to M.G.L. Chap. 21, §43.
2. Each Agency shall have the independent right to enforce the terms and conditions of this Permit. Any modification, suspension or revocation of this Permit shall be effective only with respect to the Agency taking such action, and shall not affect the validity or status of this Permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this Permit is declared, invalid, illegal or otherwise issued in violation of State law such permit shall remain in full force and effect under Federal law as an NPDES Permit issued by the U.S. Environmental Protection Agency. In the event this Permit is declared invalid, illegal or otherwise issued in violation of Federal law, this Permit shall remain in full force and effect under State law as a Permit issued by the Commonwealth of Massachusetts.

**ATTACHMENT A
BOSTON WATER AND SEWER COMMISSION
STORMWATER OUTFALLS**

OUTFALL NUMBER	OUTFALL TYPE	LOCATION	NEIGHBORHOOD	SIZE (INCHES)	TIDEGATES No. OF GATES / NUMBER	RECEIVING WATER
08B066	MAJOR	EASEMENT/VFW PARKWAY	WEST ROXBURY	18		CHARLES RIVER
08B122	MAJOR	EASEMENT/NORTH OF SPRING STREET	WEST ROXBURY	30		CHARLES RIVER
08B126	MINOR	SPRING STREET EXTENDED	WEST ROXBURY	24		CHARLES RIVER
09B049	MAJOR	EASEMENT/RIVERMOOR STREET	WEST ROXBURY	30		COW ISLAND POND/ CHARLES RIVER
10B015	MAJOR	EASEMENT/CHARLES PARK ROAD	WEST ROXBURY	21		COW ISLAND POND/ CHARLES RIVER
11B123	MAJOR	EASEMENT/EAST OF BAKER ST. EXT.	WEST ROXBURY	72		BROOK FARM BROOK
12B010	MINOR	BAKER STREET	WEST ROXBURY	15		BROOK FARM BROOK
12B014	MINOR	BAKER STREET	WEST ROXBURY	12		BROOK FARM BROOK
12B031	MINOR	EASEMENT/BAKER STREET	WEST ROXBURY	18		BROOK FARM BROOK
12B033	MINOR	EASEMENT/BAKER STREET	WEST ROXBURY	18		BROOK FARM BROOK
12B124	MAJOR	EASEMENT/LaGRANGE STREET	WEST ROXBURY	120x102		BROOK FARM BROOK
13B002	MINOR	LaGRANGE STREET	WEST ROXBURY	15		UNNAMED STREAM
13B011	MINOR	LaGRANGE STREET	WEST ROXBURY	12		UNNAMED STREAM
06C110	MAJOR	EASEMENT/PLEASANTDALE ST. EXT.	WEST ROXBURY	60		NONE SHOWN
07C006	MAJOR	EASEMENT/VFW PARKWAY/BELLE AVENUE	WEST ROXBURY	126x126		CHARLES RIVER
08C318	MAJOR	WEDGEMERE ROAD	WEST ROXBURY	24		NONE SHOWN
08C319	MINOR	WEDGEMERE ROAD	WEST ROXBURY	24		UNNAMED STREAM
14C009	MAJOR	EASEMENT/WESTGATE ROAD	WEST ROXBURY	36		UNNAMED WETLANDS
21C212	MINOR	EASEMENT/LAKE SHORE ROAD	ALLSTON/BRIGHTON	30		CHANDLERS POND
22C384	MAJOR	EASEMENT/LAKE SHORE ROAD	ALLSTON/BRIGHTON	36		CHANDLERS POND
24C174	MINOR	EASEMENT/NEWTON STREET	ALLSTON/BRIGHTON	9x20		CHARLES RIVER
24C031	MAJOR	PARSONS STREET	ALLSTON/BRIGHTON	60X60		CHARLES RIVER
06D057	MINOR	CEDAR CREST CIRCLE	WEST ROXBURY	21		NEPONSET RIVER
06D083	MINOR	MARGARETTA DRIVE	WEST ROXBURY	15		WETLANDS/CHARLES RIVER
06D084	MINOR	EASEMENT/MARGARETTA DRIVE	WEST ROXBURY	12		WETLANDS/CHARLES RIVER
06D085	MINOR	GEORGETOWN DRIVE	WEST ROXBURY	12		WETLANDS/CHARLES RIVER
06D086	MINOR	GEORGETOWN DRIVE	WEST ROXBURY	10		WETLANDS/CHARLES RIVER
06D091	MINOR	GEORGETOWN DRIVE	WEST ROXBURY	10		WETLANDS/CHARLES RIVER
06D184	MINOR	GEORGETOWN DRIVE	WEST ROXBURY	18		WETLANDS/CHARLES RIVER
06D187	MAJOR	EASEMENT/GROVE STREET	WEST ROXBURY	36		BROOK GROVE STREET CEMETERY
13D077/078	MAJOR	WEST ROXBURY PARKWAY/VFW PARKWAY	WEST ROXBURY	2-60		BUSSEY BROOK
24D032	MAJOR	NORTH BEACON STREET, ABOUT 800' EAST OF PARSONS STREET	ALLSTON/BRIGHTON	119X130	1 / 24D032-18	CHARLES RIVER
24D150	MAJOR	SOLDIERS FIELD PLACE	ALLSTON/BRIGHTON	36		CHARLES RIVER
25D033	MAJOR	ABOUT 390' NORTH OF INTERSECTION OF SOLDIERS FIELD ROAD & WESTERN AVENUE	ALLSTON/BRIGHTON	36		CHARLES RIVER
01B024	MAJOR	EASEMENT/LAKESIDE	HYDE PARK	15		SPRAGUE POND/NEPONSET RIVER
03E185	MAJOR	NORTON STREET	HYDE PARK	2-18		WETLANDS/NEPONSET RIVER
03E186	MINOR	RIVER STREET	HYDE PARK	24		MILL POND/MOTHER BROOK
03E207	MINOR	RIVER STREET	HYDE PARK			MILL POND/MOTHER BROOK

**ATTACHMENT A
BOSTON WATER AND SEWER COMMISSION
STORMWATER OUTFALLS**

04E064	MINOR	ALVARADO AVE./RIVER STREET BRIDGE	HYDE PARK	12		MILL POND/MOTHER BROOK
04E069	MAJOR	KNIGHT STREET DAM	HYDE PARK	36		MOTHER BROOK
05E180	MINOR	GEORGETOWN DRIVE	HYDE PARK	12		NONE SHOWN/CHARLES RIVER
05E181	MINOR	GEORGETOWN DRIVE	HYDE PARK	12		NONE SHOWN/CHARLES RIVER
05E182	MINOR	DEDHAM STREET	HYDE PARK	21		UNNAMED STREAM/CHARLES RIVER
05E183	MINOR	GEORGETOWN PLACE/DEDHAM PARKWAY	HYDE PARK	12		UNNAMED STREAM
08E031	MINOR	TURTLE POND PARKWAY	WEST ROXBURY	18		TURTLE POND
08E033	MINOR	TURTLE POND PARKWAY	WEST ROXBURY	UNKNOWN		TURTLE POND
08E035	MINOR	WASHINGTON STREET	WEST ROXBURY	15		TURTLE POND
09E229	MINOR	GRANDVIEW STREET	WEST ROXBURY	12		NONE SHOWN
09E243	MAJOR	BLUE LEDGE TR./EASEMENT	WEST ROXBURY	30		UNNAMED STREAM
13E174	MINOR	EASEMENT/VFW PARKWAY	ROSLINDALE	24		BUSSEY BROOK
13E175	MAJOR	EASEMENT/VFW PARKWAY	ROSLINDALE	108X86		BUSSEY BROOK
13E176	MAJOR	EASEMENT/WELD STREET	ROXBURY	15		NONE SHOWN
25E037	MAJOR	EASEMENT/TELFORD STREET EXTENDED	ALLSTON/BRIGHTON	66		CHARLES RIVER
01F031	MAJOR	EASEMENT/MILLSTONE ROAD	HYDE PARK	48x24		NEPONSET RIVER
02F085	MINOR	LAWTON STREET	HYDE PARK	12		NEPONSET RIVER RESERVATION
02F093	MAJOR	EASEMENT/SIERRA ROAD	HYDE PARK	15		NEPONSET RIVER
02F120	MAJOR	EASEMENT/WOLCOTT CT./HYDE PARK AVE. EXT.	HYDE PARK	54		NEPONSET RIVER
04F016	MAJOR	EASEMENT RIVER STREET	HYDE PARK	30		MOTHER BROOK/NEPONSET RIVER
04F118	MINOR	MASON STREET EXT.	HYDE PARK	18		NEPONSET RIVER
04F119	MAJOR	EASEMENT/HYDE PARK AVE./RESERVATION RD.	HYDE PARK	24		NEPONSET RIVER
04F189	MAJOR	RESERVATION ROAD	HYDE PARK	36		MOTHER BROOK/NEPONSET RIVER
04F191	MINOR	FARADAY STREET	HYDE PARK	24		NONE SHOWN/NEPONSET RIVER
04F203	MINOR	GLENWOOD AVE	HYDE PARK	28		NEPONSET RIVER
04F204	MAJOR	TRUMAN HWY./CHITTICK STREET	HYDE PARK	36		NEPONSET RIVER
05F117	MAJOR	EASEMENT/TRUMAN HWY./WILLIAMS AVE.	HYDE PARK	33		NEPONSET RIVER
05F244	MINOR	HYDE PARK AVENUE BRIDGE	HYDE PARK	20		MOTHER BROOK/NEPONSET RIVER
05F245	MINOR	HYDE PARK AVENUE	HYDE PARK	33		MOTHER BROOK/NEPONSET RIVER
05F253	MAJOR	EASEMENT/BUSINESS ST., NEAR BUSINESS TERRACE	HYDE PARK	48x24		MOTHER BROOK/NEPONSET RIVER
05F254	MINOR	DANA AVENUE	HYDE PARK	12		NEPONSET RIVER
05F265	MAJOR	BEHIND L.E. MASON CO.	HYDE PARK	15		MOTHER BROOK/NEPONSET RIVER
06F233	MINOR	MOUNT ASH ROAD	HYDE PARK	UNK		WETLAND - STONY BROOK RESERVATION
12F322	MINOR	EASEMENT/WALTER STREET	ROSLINDALE	18		NONE SHOWN
13F095	MINOR	EASEMENT/BUSSEY STREET	ROSLINDALE	12		BUSSEY BROOK
14F181	MAJOR	CENTER STREET EXTENSION	ROSLINDALE	38X86		GOLDSMITH BROOK
14F185	MINOR	ALLANDALE STREET	ROSLINDALE	12		BUSSEY BROOK
15F288	MAJOR	ARNOLD ARBORETUM/MURRAY CIRCLE	JAMAICA PLAIN	54		GOLDSMITH BROOK
15F307	MAJOR	ARNOLD ARBORETUM, 100' EAST OF ARBORWAY & SAINT JOSEPH STREET	JAMAICA PLAIN	36X36		GOLDSMITH BROOK
17F012	MINOR	FRANCIS PARKMAN DRIVE	JAMAICA PLAIN	15		JAMAICA POND

**ATTACHMENT A
BOSTON WATER AND SEWER COMMISSION
STORMWATER OUTFALLS**

26F038	MAJOR	HARVARD STREET EXT.	ALLSTON/BRIGHTON	36		CHARLES RIVER
05G112	MAJOR	EASEMENT/RR ROW/WATER ST. EXT.	HYDE PARK	30		NEPONSET RIVER
05G115	MINOR	FAIRMOUNT AVENUE BRIDGE (NORTH BANK)	HYDE PARK	24		NEPONSET RIVER
05G116	MINOR	FAIRMOUNT AVE, BRIDGE (SOUTH BANK)	HYDE PARK	24		NEPONSET RIVER
05G116A	MINOR	WARREN AVENUE	HYDE PARK	24		NEPONSET RIVER
06G108	MAJOR	EASEMENT/WEST OF WOOD AVE. EXT.	HYDE PARK	69		NEPONSET RIVER
06G109	MAJOR	RIVER TERRACE EXT. NEAR ROSA STREET	HYDE PARK	48		NEPONSET RIVER
06G110	MAJOR	EASEMENT/WEST STREET EXT.	HYDE PARK	30		NEPONSET RIVER
06G111	MINOR	EASEMENT/VOSE STREET EXT., TRUMAN HWY.	HYDE PARK	24		NEPONSET RIVER
06G165	MINOR	TRUMAN HIGHWAY/METROPOLITAN AVE	HYDE PARK	10		NEPONSET RIVER
06G166	MAJOR	ABOUT 30 FEET FROM GUARDRAIL NORTHERLY SIDE OF TRUMAN HIGHWAY NEAR MILTON LINE.	HYDE PARK	36x36		NEPONSET RIVER
11G318	MINOR	CULVERT UNDER WALK HILL STREET	ROSLINDALE	24		CANTERBURY BROOK
11G319	MINOR	CULVERT UNDER WALK HILL STREET	ROSLINDALE	18		CANTERBURY BROOK
11G344	MAJOR	CULVERT UNDER WALK HILL STREET	ROSLINDALE	162X78		CANTERBURY BROOK
18G233	MINOR	WILLOW POND ROAD	JAMAICA PLAIN	15		MUDDY RIVER
19G043	MAJOR	HUNTINGTON AVENUE	ROXBURY/MISSION HALL	45x45		MUDDY RIVER
19G194	MINOR	HUNTINGTON AVENUE	ROXBURY/MISSION HILL	24		MUDDY RIVER
19G199	MINOR	JAMAICA WAY	ROXBURY/MISSION HILL	10		MUDDY RIVER
20G161	MAJOR	EASEMENT/BROOKLINE AVENUE	ROXBURY/MISSION HILL	36		MUDDY RIVER
20G163	MINOR	EASEMENT/RIVERWAY	ROXBURY/MISSION HILL	20		MUDDY RIVER
23G132	MAJOR	EASEMENT/MASS TURNPIKE/WEST OF B. U. BRIDGE	ALLSTON/BRIGHTON	60		CHARLES RIVER
24G034	MAJOR	SOLDIER'S FIELD ROAD, SOUTH OF CAMBRIDGE STREET	ALLSTON/BRIGHTON	36	1 / 24G034-1	CHARLES RIVER
24G035	MAJOR	SOLDIERS FIELD ROAD/BABCOCK STREET	ALLSTON/BRIGHTON	90x84		CHARLES RIVER
25G005	MINOR	FROM WESTERN AVENUE BRIDGE	ALLSTON/BRIGHTON	12		CHARLES RIVER
25G041	MINOR	SOLDIERS FIELD ROAD/NORTH OF WESTERN AVENUE BRIDGE	ALLSTON/BRIGHTON	24		CHARLES RIVER
06H106	MINOR	OSCEOLA STREET	HYDE PARK	24		NEPONSET RIVER
06H107	MAJOR	EASEMENT/BELNEL ROAD	HYDE PARK	24		NEPONSET RIVER
07H105	MAJOR	EASEMENT/EDGEWATER/SOUTH RIVER STREET	NEPONSET/MATTAPAN	102x72		NEPONSET RIVER
07H285	MAJOR	BLUE HILL AVENUE	NEPONSET/MATTAPAN	106x63		NEPONSET RIVER
07H287	MINOR	RIVER STREET/EDGEWATER DRIVE	NEPONSET/MATTAPAN	12		NEPONSET RIVER
07H346	MINOR	EDGEWATER DRIVE/HOLMFIELD AVENUE	HYDE PARK	18		NEPONSET RIVER
07H347	MINOR	EDGEWATER DRIVE/BURMAH ROAD	NEPONSET/MATTAPAN	21		NEPONSET RIVER
07H348	MINOR	EDGEWATER DRIVE/TOPALIAN STREET	NEPONSET/MATTAPAN	24		NEPONSET RIVER
12H085	MINOR	MORTON STREET	ROSLINDALE	15		CANTERBURY BROOK
	MAJOR	AMERICAN LEGION HIGHWAY	WEST ROXBURY	24		CANTERBURY BROOK
21H047	MINOR	PALACE ROAD EXT.	BOSTON PROPER	24		MUDDY RIVER

**ATTACHMENT A
BOSTON WATER AND SEWER COMMISSION
STORMWATER OUTFALLS**

21H048	MINOR	EASEMENT/FENWAY/EVANS WAY	BOSTON PROPER	15		MUDDY RIVER
21H201	MINOR	PALACE ROAD EXT.	BOSTON PROPER	6		MUDDY RIVER
23H040	MINOR	RALEIGH STREET EXT.	BOSTON PROPER	24		CHARLES RIVER
23H042	MAJOR	DEERFIELD STREET	BOSTON PROPER	116x120		CHARLES RIVER
08I153	MINOR	DUXBURY ROAD	NEPONSET/MATTAPAN	15		NEPONSET RIVER
08I154	MINOR	EASEMENT/RIVER STREET/GLADSIDE AVE	NEPONSET/MATTAPAN	18		NEPONSET RIVER
08I155	MINOR	EASEMENT/RIVER STREET/MAMELON CIR	NEPONSET/MATTAPAN	24		NEPONSET RIVER
08I156	MINOR	EASEMENT/RIVER STREET/MAMELON CIR	NEPONSET/MATTAPAN	24		NEPONSET RIVER
08I158	MINOR	EASEMENT/RIVER STREET/FREMONT ST.	NEPONSET/MATTAPAN	18		NEPONSET RIVER
08I207	MINOR	MEADOWBANK AVENUE EXT.	NEPONSET/MATTAPAN	15		NEPONSET RIVER
08I209	MINOR	MEADOWBANK AVENUE EXT.	NEPONSET/MATTAPAN	12		NEPONSET RIVER
11I577	MAJOR	HARVARD STREET	NEPONSET/MATTAPAN	102x102		CANTERBURY BROOK
08J041	MINOR	RIVER STREET	DORCHESTER	18		NEPONSET RIVER
08J102	MINOR	ADAMS STREET	DORCHESTER	15x15		NEPONSET RIVER
08J103	MAJOR	EASEMENT/CENTRAL AVENUE BRIDGE	DORCHESTER	30		NEPONSET RIVER
08J49/50	MAJOR	DESMOND ROAD	DORCHESTER	2-18&24		NEPONSET RIVER
26J052	MINOR	MONSIGNOR O'BRIEN HIGHWAY	BOSTON PROPER	12		CHARLES RIVER
26J055	MINOR	LEVERETT CIRCLE	BOSTON PROPER	12	1 / NOT MAPPED	CHARLES RIVER
27J001	MAJOR	EASEMENT/INTERSTATE 93	CHARLESTOWN	72		MILLERS RIVER
27J044	MAJOR	PRISON POINT BRIDGE	CHARLESTOWN	15		MILLERS RIVER
27J096	MAJOR	EASEMENT/INTERSTATE 93	CHARLESTOWN	54		MILLERS RIVER
29J029	MINOR	ALFORD STREET/RYAN PLGD. EXT.	CHARLESTOWN	15		MYSTIC RIVER
29J129	MINOR	ALFORD STREET	CHARLESTOWN	15		MYSTIC RIVER
29J212	MAJOR	EASEMENT/MEDFORD STREET (ALSO OF017)	CHARLESTOWN	72		MYSTIC RIVER
30J006	MAJOR	EASEMENT/ALFORD STREET	CHARLESTOWN	18		MYSTIC RIVER
30J019	MAJOR	ALFORD STREET	CHARLESTOWN	15		MYSTIC RIVER
30J030	MAJOR	EASEMENT/ARLINGTON AVENUE	CHARLESTOWN	42	1 / NOT MAPPED	MYSTIC RIVER
08K049	MINOR	BEARSE AVENUE	DORCHESTER	12		NEPONSET RIVER
09K016	MINOR	EASEMENT/BEARSE AVENUE EXT.	DORCHESTER	15		NEPONSET RIVER
09K100	MAJOR	EASEMENT/MELLISH ROAD	DORCHESTER	34x24		NEPONSET RIVER
09K101	MINOR	EASEMENT/HUNTOON STREET EXT.	DORCHESTER	24		NEPONSET RIVER
21K069	MAJOR	EAST BERKELEY STREET	BOSTON PROPER	48	1 / 21K069-1	FORT POINT CHANNEL
26K099	MAJOR	CHELSEA STREET EXT.	CHARLESTOWN	84		CHARLES RIVER

**ATTACHMENT A
BOSTON WATER AND SEWER COMMISSION
STORMWATER OUTFALLS**

26K245	MINOR	EASEMENT	CHARLESTOWN	15		CHARLES RIVER
28K018	MAJOR	OLD LANDING WAY EXT.	CHARLESTOWN	42	1 / 28K058	LITTLE MYSTIC CHANNEL
28K061	MAJOR	EASEMENT/MEDFORD STREET	CHARLESTOWN	42	1 / 28K062	LITTLE MYSTIC CHANNEL
28K386	MAJOR	EASEMENT/TERMINAL STREET	CHARLESTOWN	30	1 / 28K385	LITTLE MYSTIC CHANNEL
10L094	MAJOR	EASEMENT/GALLIVAN BOULEVARD	DORCHESTER	74x93		NEPONSET RIVER VIA DAVENPORT BROOK
10L096	MAJOR	HILLTOP AND LENOXDALE STREETS	DORCHESTER	36		NEPONSET RIVER
12L092	MAJOR	PINE NECK CREEK STORM DRAIN TENEAN STREET WEST OF LAWLEY	DORCHESTER	72	2 / 12L294	NEPONSET RIVER
16L097	MAJOR	EASEMENT/OFF SAVIN HILL AVENUE	DORCHESTER	24		PATTEN'S COVE
20L081	MINOR	EAST FIRST STREET	SOUTH BOSTON	20		RESERVED CHANNEL
20L083	MINOR	EAST FIRST STREET	SOUTH BOSTON	20		RESERVED CHANNEL
21L077	MAJOR	CLAPLIN STREET EXT./EAST STREET EXT.	SOUTH BOSTON	24	1 / NOT MAPPED	RESERVED CHANNEL
23L016	MINOR	NORTHERN AVENUE	SOUTH BOSTON	2-15&16		BOSTON INNER HARBOR
23L074	MINOR	SUMMER STREET BRIDGE	SOUTH BOSTON	15		FORT POINT CHANNEL
23L075	MAJOR	CONGRESS STREET BRIDGE	SOUTH BOSTON	54		FORT POINT CHANNEL
23L140	MINOR	NORTHERN AVENUE	SOUTH BOSTON	10		BOSTON INNER HARBOR
23L145	MINOR	NORTHERN AVENUE	SOUTH BOSTON	10		BOSTON INNER HARBOR
23L164	MAJOR	CONGRESS STREET BRIDGE	BOSTON PROPER	48	1 / 23L164 IN CHANNEL WALL	FORT POINT CHANNEL
23L195	MAJOR	NORTHERN AVENUE	SOUTH BOSTON	36		BOSTON INNER HARBOR
23L196	MAJOR	NEW NORTHERN AVENUE BRIDGE	SOUTH BOSTON	36		FORT POINT CHANNEL
23L202	MAJOR	NORTHERN AVENUE	SOUTH BOSTON	36		BOSTON INNER HARBOR
24L057	MINOR	STATE STREET EXT.	BOSTON PROPER	18x18		BOSTON INNER HARBOR
24L233	MAJOR	ROWE'S WHARF/ATLANTIC AVENUE	BOSTON PROPER	42		BOSTON HARBOR
25L058	MAJOR	CHRISTOPHER COLUMBUS PARK - WATERFRONT	BOSTON PROPER	84		BOSTON INNER HARBOR
25L144	MINOR	CLARK STREET	BOSTON PROPER	12		BOSTON INNER HARBOR
26L055	MAJOR	NEAR BATTERY WHARF	BOSTON PROPER	24X24		BOSTON INNER HARBOR
26L070	MAJOR	HANOVER STREET EXT.	BOSTON PROPER	36		BOSTON INNER HARBOR
26L84	MINOR	LEWIS STREET	EAST BOSTON	18		BOSTON INNER HARBOR
27L020	MAJOR	PIER NO. 4 EASEMENT - NAVY YARD	CHARLESTOWN	2-20&24	1 / 27K020-1	BOSTON INNER HARBOR
28L073	MINOR	EASEMENT/4TH STREET - NAVY YARD	CHARLESTOWN	6		LITTLE MYSTIC CHANNEL
28L074/075/ 076	MAJOR	16TH STREET/4TH AVENUE - NAVY YARD	CHARLESTOWN	3-30		LITTLE MYSTIC CHANNEL
28L077	MINOR	EASEMENT/4TH AVENUE - NAVY YARD	CHARLESTOWN	10		LITTLE MYSTIC CHANNEL
11M093	MAJOR	NEPONSET AVENUE AT NORTHWEST END OF NEPONSET AVENUE BRIDGE	DORCHESTER	48		NEPONSET RIVER
12M091	MAJOR	ERICSSON/WALNUT ST.	NEPONSET/MATTAPAN	36		NEPONSET RIVER
17M033	MAJOR	HARBOR POINT PARK (RELOCATED MT. VERNON ST. DRAIN)	DORCHESTER	72		DORCHESTER BAY
21M005	MAJOR	SUMMER STREET	SOUTH BOSTON	18		RESERVED CHANNEL

ATTACHMENT A
 BOSTON WATER AND SEWER COMMISSION
 STORMWATER OUTFALLS

29M032	MINOR	CONDOR STREET	EAST BOSTON	30		CHELSEA RIVER
29M041	MAJOR	EASEMENT/CONDOR STREET	EAST BOSTON	36x30		CHELSEA RIVER
29M049	MINOR	CONDOR STREET	EAST BOSTON	24		CHELSEA RIVER
29N135	MAJOR	ADDISON STREET	EAST BOSTON	30x30		CHELSEA RIVER
28N156	MINOR	COLERIDGE STREET EXT.	EAST BOSTON	12		BOSTON HARBOR
29O001	MAJOR	BENNINGTON STREET	EAST BOSTON	66	1 / 290062	BOSTON HARBOR NEAR CONSTITUTION BEACH
31O004	MINOR	EASEMENT/WALDEMAR AVENUE	EAST BOSTON	15		CHELSEA RIVER
28P001	MINOR	EASEMENT	EAST BOSTON	12		BOSTON HARBOR NEAR CONSTITUTION BEACH
29P015	MINOR	EASEMENT/BARNES AVENUE	EAST BOSTON	12		BELLE ISLE INLET
29P044	MINOR	SHAWSHEEN STREET	EAST BOSTON	12		BOSTON HARBOR
30P062	MINOR	PALERMO AVENUE EXTENSION	EAST BOSTON	12		WETLANDS
31P084	MINOR	EASEMENT/BENNINGTON STREET	EAST BOSTON	30		BELLE ISLE INLET, REVERE

Major* : 93

Minor : 102

Total: 195

* Major outfall means : An outfall that discharges from a single pipe of 36" or larger in diameter or a non-circular pipe which is associated with drainage area of more than 50 acres; or an outfall that discharges from a single pipe of 12" or larger in diameter serving lands zoned for industrial activity or a non-circular pipe which is associated with drainage area of 2 acres or more.

**ATTACHMENT A
BOSTON WATER AND SEWER COMMISSION
STORMWATER OUTFALLS**

OUTFALL NUMBER	OUTFALL TYPE	LOCATION	NEIGHBORHOOD	SIZE (INCHES)	TIDEGATES No. OF GATES / NUMBER	RECEIVING WATER
08B066	MAJOR	EASEMENT/VFW PARKWAY	WEST ROXBURY	18		CHARLES RIVER
08B122	MAJOR	EASEMENT/NORTH OF SPRING STREET	WEST ROXBURY	30		CHARLES RIVER
08B126	MINOR	SPRING STREET EXTENDED	WEST ROXBURY	24		CHARLES RIVER
09B049	MAJOR	EASEMENT/RIVERMOOR STREET	WEST ROXBURY	30		COW ISLAND POND/ CHARLES RIVER
10B015	MAJOR	EASEMENT/CHARLES PARK ROAD	WEST ROXBURY	21		COW ISLAND POND/ CHARLES RIVER
11B123	MAJOR	EASEMENT/EAST OF BAKER ST. EXT.	WEST ROXBURY	72		BROOK FARM BROOK
12B010	MINOR	BAKER STREET	WEST ROXBURY	15		BROOK FARM BROOK
12B014	MINOR	BAKER STREET	WEST ROXBURY	12		BROOK FARM BROOK
12B031	MINOR	EASEMENT/BAKER STREET	WEST ROXBURY	18		BROOK FARM BROOK
12B033	MINOR	EASEMENT/BAKER STREET	WEST ROXBURY	18		BROOK FARM BROOK
12B124	MAJOR	EASEMENT/LaGRANGE STREET	WEST ROXBURY	120x102		BROOK FARM BROOK
13B002	MINOR	LaGRANGE STREET	WEST ROXBURY	15		UNNAMED STREAM
13B011	MINOR	LaGRANGE STREET	WEST ROXBURY	12		UNNAMED STREAM
06C110	MAJOR	EASEMENT/PLEASANTDALE ST. EXT.	WEST ROXBURY	60		NONE SHOWN
07C006	MAJOR	EASEMENT/VFW PARKWAY/BELLE AVENUE	WEST ROXBURY	126x126		CHARLES RIVER
08C318	MAJOR	WEDGEMERE ROAD	WEST ROXBURY	24		NONE SHOWN
08C319	MINOR	WEDGEMERE ROAD	WEST ROXBURY	24		UNNAMED STREAM
14C009	MAJOR	EASEMENT/WESTGATE ROAD	WEST ROXBURY	36		UNNAMED WETLANDS
21C212	MINOR	EASEMENT/LAKE SHORE ROAD	ALLSTON/BRIGHTON	30		CHANDLERS POND
22C384	MAJOR	EASEMENT/LAKE SHORE ROAD	ALLSTON/BRIGHTON	36		CHANDLERS POND
24C174	MINOR	EASEMENT/NEWTON STREET	ALLSTON/BRIGHTON	9x20		CHARLES RIVER
24C031	MAJOR	PARSONS STREET	ALLSTON/BRIGHTON	60x60		CHARLES RIVER
06D057	MINOR	CEDAR CREST CIRCLE	WEST ROXBURY	21		NEPONSET RIVER WETLANDS/CHARLES RIVER
06D083	MINOR	MARGARETTA DRIVE	WEST ROXBURY	15		WETLANDS/CHARLES RIVER
06D084	MINOR	EASEMENT/MARGARETTA DRIVE	WEST ROXBURY	12		WETLANDS/CHARLES RIVER
06D085	MINOR	GEORGETOWN DRIVE	WEST ROXBURY	12		WETLANDS/CHARLES RIVER
06D086	MINOR	GEORGETOWN DRIVE	WEST ROXBURY	10		WETLANDS/CHARLES RIVER
06D091	MINOR	GEORGETOWN DRIVE	WEST ROXBURY	10		WETLANDS/CHARLES RIVER
06D184	MINOR	GEORGETOWN DRIVE	WEST ROXBURY	18		WETLANDS/CHARLES RIVER
06D187	MAJOR	EASEMENT/GROVE STREET	WEST ROXBURY	36		BROOK GROVE STREET CEMETERY
13D077/078	MAJOR	WEST ROXBURY PARKWAY/VFW PARKWAY	WEST ROXBURY	2-60		BUSSEY BROOK
24D032	MAJOR	NORTH BEACON STREET, ABOUT 800' EAST OF PARSONS STREET	ALLSTON/BRIGHTON	119X130	1 / 24D032-18	CHARLES RIVER
24D150	MAJOR	SOLDIERS FIELD PLACE	ALLSTON/BRIGHTON	36		CHARLES RIVER
25D033	MAJOR	ABOUT 390' NORTH OF INTERSECTION OF SOLDIERS FIELD ROAD & WESTERN AVENUE	ALLSTON/BRIGHTON	36		CHARLES RIVER
01B024	MAJOR	EASEMENT/LAKESIDE	HYDE PARK	15		SPRAGUE POND/NEPONSET RIVER
03E185	MAJOR	NORTON STREET	HYDE PARK	2-18		WETLANDS/NEPONSET RIVER
03E186	MINOR	RIVER STREET	HYDE PARK	24		MILL POND/MOTHER BROOK
03E207	MINOR	RIVER STREET	HYDE PARK			MILL POND/MOTHER BROOK

ATTACHMENT A
 BOSTON WATER AND SEWER COMMISSION
 STORMWATER OUTFALLS

04E064	MINOR	ALVARADO AVE./RIVER STREET BRIDGE	HYDE PARK	12		MILL POND/MOTHER BROOK
04E069	MAJOR	KNIGHT STREET DAM	HYDE PARK	36		MOTHER BROOK
05E180	MINOR	GEORGETOWN DRIVE	HYDE PARK	12		NONE SHOWN/CHARLES RIVER
05E181	MINOR	GEORGETOWN DRIVE	HYDE PARK	12		NONE SHOWN/CHARLES RIVER
05E182	MINOR	DEDHAM STREET	HYDE PARK	21		UNNAMED STREAM/CHARLES RIVER
05E183	MINOR	GEORGETOWN PLACE/DEDHAM PARKWAY	HYDE PARK	12		UNNAMED STREAM
08E031	MINOR	TURTLE POND PARKWAY	WEST ROXBURY	18		TURTLE POND
08E033	MINOR	TURTLE POND PARKWAY	WEST ROXBURY	UNKNOWN		TURTLE POND
08E035	MINOR	WASHINGTON STREET	WEST ROXBURY	15		TURTLE POND
09E229	MINOR	GRANDVIEW STREET	WEST ROXBURY	12		NONE SHOWN
09E243	MAJOR	BLUE LEDGE TR./EASEMENT	WEST ROXBURY	30		UNNAMED STREAM
13E174	MINOR	EASEMENT/VFW PARKWAY	ROSLINDALE	24		BUSSEY BROOK
13E175	MAJOR	EASEMENT/VFW PARKWAY	ROSLINDALE	108X86		BUSSEY BROOK
13E176	MAJOR	EASEMENT/WELD STREET	ROXBURY	15		NONE SHOWN
25E037	MAJOR	EASEMENT/TELFORD STREET EXTENDED	ALLSTON/BRIGHTON	66		CHARLES RIVER
01F031	MAJOR	EASEMENT/MILLSTONE ROAD	HYDE PARK	48x24		NEPONSET RIVER
02F085	MINOR	LAWTON STREET	HYDE PARK	12		NEPONSET RIVER RESERVATION
02F093	MAJOR	EASEMENT/SIERRA ROAD	HYDE PARK	15		NEPONSET RIVER
02F120	MAJOR	EASEMENT/WOLCOTT CT./HYDE PARK AVE. EXT.	HYDE PARK	54		NEPONSET RIVER
04F016	MAJOR	EASEMENT RIVER STREET	HYDE PARK	30		MOTHER BROOK/NEPONSET RIVER
04F118	MINOR	MASON STREET EXT.	HYDE PARK	18		NEPONSET RIVER
04F119	MAJOR	EASEMENT/HYDE PARK AVE./RESERVATION RD.	HYDE PARK	24		NEPONSET RIVER
04F189	MAJOR	RESERVATION ROAD	HYDE PARK	36		MOTHER BROOK/NEPONSET RIVER
04F191	MINOR	FARADAY STREET	HYDE PARK	24		NONE SHOWN/NEPONSET RIVER
04F203	MINOR	GLENWOOD AVE	HYDE PARK	28		NEPONSET RIVER
04F204	MAJOR	TRUMAN HWY./CHITTICK STREET	HYDE PARK	36		NEPONSET RIVER
05F117	MAJOR	EASEMENT/TRUMAN HWY./WILLIAMS AVE.	HYDE PARK	33		NEPONSET RIVER
05F244	MINOR	HYDE PARK AVENUE BRIDGE	HYDE PARK	20		MOTHER BROOK/NEPONSET RIVER
05F245	MINOR	HYDE PARK AVENUE	HYDE PARK	33		MOTHER BROOK/NEPONSET RIVER
05F253	MAJOR	EASEMENT/BUSINESS ST., NEAR BUSINESS TERRACE	HYDE PARK	48x24		MOTHER BROOK/NEPONSET RIVER
05F254	MINOR	DANA AVENUE	HYDE PARK	12		NEPONSET RIVER
05F265	MAJOR	BEHIND L.E. MASON CO.	HYDE PARK	15		MOTHER BROOK/NEPONSET RIVER
06F233	MINOR	MOUNT ASH ROAD	HYDE PARK	UNK		WETLAND - STONY BROOK RESERVATION
12F322	MINOR	EASEMENT/WALTER STREET	ROSLINDALE	18		NONE SHOWN
13F095	MINOR	EASEMENT/BUSSEY STREET	ROSLINDALE	12		BUSSEY BROOK
14F181	MAJOR	CENTER STREET EXTENSION	ROSLINDALE	38X86		GOLDSMITH BROOK
14F185	MINOR	ALLANDALE STREET	ROSLINDALE	12		BUSSEY BROOK
15F288	MAJOR	ARNOLD ARBORETUM/MURRAY CIRCLE	JAMAICA PLAIN	54		GOLDSMITH BROOK
15F307	MAJOR	ARNOLD ARBORETUM, 100' EAST OF ARBORWAY & SAINT JOSEPH STREET	JAMAICA PLAIN	36X36		GOLDSMITH BROOK
17F012	MINOR	FRANCIS PARKMAN DRIVE	JAMAICA PLAIN	15		JAMAICA POND

**ATTACHMENT A
BOSTON WATER AND SEWER COMMISSION
STORMWATER OUTFALLS**

26F038	MAJOR	HARVARD STREET EXT.	ALLSTON/BRIGHTON	36		CHARLES RIVER
05G112	MAJOR	EASEMENT/RR ROW/WATER ST. EXT.	HYDE PARK	30		NEPONSET RIVER
05G115	MINOR	FAIRMOUNT AVENUE BRIDGE (NORTH BANK)	HYDE PARK	24		NEPONSET RIVER
05G116	MINOR	FAIRMOUNT AVE, BRIDGE (SOUTH BANK)	HYDE PARK	24		NEPONSET RIVER
05G116A	MINOR	WARREN AVENUE	HYDE PARK	24		NEPONSET RIVER
06G108	MAJOR	EASEMENT/WEST OF WOOD AVE. EXT.	HYDE PARK	69		NEPONSET RIVER
06G109	MAJOR	RIVER TERRACE EXT. NEAR ROSA STREET	HYDE PARK	48		NEPONSET RIVER
06G110	MAJOR	EASEMENT/WEST STREET EXT.	HYDE PARK	30		NEPONSET RIVER
06G111	MINOR	EASEMENT/VOSE STREET EXT., TRUMAN HWY.	HYDE PARK	24		NEPONSET RIVER
06G165	MINOR	TRUMAN HIGHWAY/METROPOLITAN AVE	HYDE PARK	10		NEPONSET RIVER
06G166	MAJOR	ABOUT 30 FEET FROM GUARDRAIL NORTHERLY SIDE OF TRUMAN HIGHWAY NEAR MILTON LINE.	HYDE PARK	36x36		NEPONSET RIVER
11G318	MINOR	CULVERT UNDER WALK HILL STREET	ROSLINDALE	24		CANTERBURY BROOK
11G319	MINOR	CULVERT UNDER WALK HILL STREET	ROSLINDALE	18		CANTERBURY BROOK
11G344	MAJOR	CULVERT UNDER WALK HILL STREET	ROSLINDALE	162X78		CANTERBURY BROOK
18G233	MINOR	WILLOW POND ROAD	JAMAICA PLAIN	15		MUDDY RIVER
19G043	MAJOR	HUNTINGTON AVENUE	ROXBURY/MISSION HALL	45x45		MUDDY RIVER
19G194	MINOR	HUNTINGTON AVENUE	ROXBURY/MISSION HILL	24		MUDDY RIVER
19G199	MINOR	JAMAICA WAY	ROXBURY/MISSION HILL	10		MUDDY RIVER
20G161	MAJOR	EASEMENT/BROOKLINE AVENUE	ROXBURY/MISSION HILL	36		MUDDY RIVER
20G163	MINOR	EASEMENT/RIVERWAY	ROXBURY/MISSION HILL	20		MUDDY RIVER
23G132	MAJOR	EASEMENT/MASS TURNPIKE/WEST OF B. U. BRIDGE	ALLSTON/BRIGHTON	60		CHARLES RIVER
24G034	MAJOR	SOLDIER'S FIELD ROAD, SOUTH OF CAMBRIDGE STREET	ALLSTON/BRIGHTON	36	1 / 24G034-1	CHARLES RIVER
24G035	MAJOR	SOLDIERS FIELD ROAD/BABCOCK STREET	ALLSTON/BRIGHTON	90x84		CHARLES RIVER
25G005	MINOR	FROM WESTERN AVENUE BRIDGE	ALLSTON/BRIGHTON	12		CHARLES RIVER
25G041	MINOR	SOLDIERS FIELD ROAD/NORTH OF WESTERN AVENUE BRIDGE	ALLSTON/BRIGHTON	24		CHARLES RIVER
06H106	MINOR	OSCEOLA STREET	HYDE PARK	24		NEPONSET RIVER
06H107	MAJOR	EASEMENT/BELNEL ROAD	HYDE PARK	24		NEPONSET RIVER
07H105	MAJOR	EASEMENT/EDGEWATER/SOUTH RIVER STREET	NEPONSET/MATTAPAN	102x72		NEPONSET RIVER
07H285	MAJOR	BLUE HILL AVENUE	NEPONSET/MATTAPAN	106x63		NEPONSET RIVER
07H287	MINOR	RIVER STREET/EDGEWATER DRIVE	NEPONSET/MATTAPAN	12		NEPONSET RIVER
07H346	MINOR	EDGEWATER DRIVE/HOLMFIELD AVENUE	HYDE PARK	18		NEPONSET RIVER
07H347	MINOR	EDGEWATER DRIVE/BURMAH ROAD	NEPONSET/MATTAPAN	21		NEPONSET RIVER
07H348	MINOR	EDGEWATER DRIVE/TOPALIAN STREET	NEPONSET/MATTAPAN	24		NEPONSET RIVER
12H085	MINOR	MORTON STREET	ROSLINDALE	15		CANTERBURY BROOK
	MAJOR	AMERICAN LEGION HIGHWAY	WEST ROXBURY	24		CANTERBURY BROOK
21H047	MINOR	PALACE ROAD EXT.	BOSTON PROPER	24		MUDDY RIVER

**ATTACHMENT A
BOSTON WATER AND SEWER COMMISSION
STORMWATER OUTFALLS**

21H048	MINOR	EASEMENT/FENWAY/EVANS WAY	BOSTON PROPER	15		MUDDY RIVER
21H201	MINOR	PALACE ROAD EXT.	BOSTON PROPER	6		MUDDY RIVER
23H040	MINOR	RALEIGH STREET EXT.	BOSTON PROPER	24		CHARLES RIVER
23H042	MAJOR	DEERFIELD STREET	BOSTON PROPER	116x120		CHARLES RIVER
08I153	MINOR	DUXBURY ROAD	NEPONSET/MATTAPAN	15		NEPONSET RIVER
08I154	MINOR	EASEMENT/RIVER STREET/GLADSIDE AVE	NEPONSET/MATTAPAN	18		NEPONSET RIVER
08I155	MINOR	EASEMENT/RIVER STREET/MAMELON CIR	NEPONSET/MATTAPAN	24		NEPONSET RIVER
08I156	MINOR	EASEMENT/RIVER STREET/MAMELON CIR	NEPONSET/MATTAPAN	24		NEPONSET RIVER
08I158	MINOR	EASEMENT/RIVER STREET/FREMONT ST.	NEPONSET/MATTAPAN	18		NEPONSET RIVER
08I207	MINOR	MEADOWBANK AVENUE EXT.	NEPONSET/MATTAPAN	15		NEPONSET RIVER
08I209	MINOR	MEADOWBANK AVENUE EXT.	NEPONSET/MATTAPAN	12		NEPONSET RIVER
11I577	MAJOR	HARVARD STREET	NEPONSET/MATTAPAN	102x102		CANTERBURY BROOK
08J041	MINOR	RIVER STREET	DORCHESTER	18		NEPONSET RIVER
08J102	MINOR	ADAMS STREET	DORCHESTER	15x15		NEPONSET RIVER
08J103	MAJOR	EASEMENT/CENTRAL AVENUE BRIDGE	DORCHESTER	30		NEPONSET RIVER
08J49/50	MAJOR	DESMOND ROAD	DORCHESTER	2-18&24		NEPONSET RIVER
26J052	MINOR	MONSIGNOR O'BRIEN HIGHWAY	BOSTON PROPER	12		CHARLES RIVER
26J055	MINOR	LEVERETT CIRCLE	BOSTON PROPER	12	1 / NOT MAPPED	CHARLES RIVER
27J001	MAJOR	EASEMENT/INTERSTATE 93	CHARLESTOWN	72		MILLERS RIVER
27J044	MAJOR	PRISON POINT BRIDGE	CHARLESTOWN	15		MILLERS RIVER
27J096	MAJOR	EASEMENT/INTERSTATE 93	CHARLESTOWN	54		MILLERS RIVER
29J029	MINOR	ALFORD STREET/RYAN PLGD. EXT.	CHARLESTOWN	15		MYSTIC RIVER
29J129	MINOR	ALFORD STREET	CHARLESTOWN	15		MYSTIC RIVER
29J212	MAJOR	EASEMENT/MEDFORD STREET (ALSO OF017)	CHARLESTOWN	72		MYSTIC RIVER
30J006	MAJOR	EASEMENT/ALFORD STREET	CHARLESTOWN	18		MYSTIC RIVER
30J019	MAJOR	ALFORD STREET	CHARLESTOWN	15		MYSTIC RIVER
30J030	MAJOR	EASEMENT/ARLINGTON AVENUE	CHARLESTOWN	42	1 / NOT MAPPED	MYSTIC RIVER
08K049	MINOR	BEARSE AVENUE	DORCHESTER	12		NEPONSET RIVER
09K016	MINOR	EASEMENT/BEARSE AVENUE EXT.	DORCHESTER	15		NEPONSET RIVER
09K100	MAJOR	EASEMENT/MELLISH ROAD	DORCHESTER	34X24		NEPONSET RIVER
09K101	MINOR	EASEMENT/HUNTOON STREET EXT.	DORCHESTER	24		NEPONSET RIVER
21K069	MAJOR	EAST BERKELEY STREET	BOSTON PROPER	48	1 / 21K069-1	FORT POINT CHANNEL
26K099	MAJOR	CHELSEA STREET EXT.	CHARLESTOWN	84		CHARLES RIVER

**ATTACHMENT A
BOSTON WATER AND SEWER COMMISSION
STORMWATER OUTFALLS**

26K245	MINOR	EASEMENT	CHARLESTOWN	15		CHARLES RIVER
28K018	MAJOR	OLD LANDING WAY EXT.	CHARLESTOWN	42	1 / 28K058	LITTLE MYSTIC CHANNEL
28K061	MAJOR	EASEMENT/MEDFORD STREET	CHARLESTOWN	42	1 / 28K062	LITTLE MYSTIC CHANNEL
28K386	MAJOR	EASEMENT/TERMINAL STREET	CHARLESTOWN	30	1 / 28K385	LITTLE MYSTIC CHANNEL
10L094	MAJOR	EASEMENT/GALLIVAN BOULEVARD	DORCHESTER	74x93		NEPONSET RIVER VIA DAVENPORT BROOK
10L096	MAJOR	HILLTOP AND LENOXDALE STREETS	DORCHESTER	36		NEPONSET RIVER
12L092	MAJOR	PINE NECK CREEK STORM DRAIN TENEAN STREET WEST OF LAWLEY	DORCHESTER	72	2 / 12L294	NEPONSET RIVER
16L097	MAJOR	EASEMENT/OFF SAVIN HILL AVENUE	DORCHESTER	24		PATTEN'S COVE
20L081	MINOR	EAST FIRST STREET	SOUTH BOSTON	20		RESERVED CHANNEL
20L083	MINOR	EAST FIRST STREET	SOUTH BOSTON	20		RESERVED CHANNEL
21L077	MAJOR	CLAFLIN STREET EXT./EAST STREET EXT.	SOUTH BOSTON	24	1 / NOT MAPPED	RESERVED CHANNEL
23L016	MINOR	NORTHERN AVENUE	SOUTH BOSTON	2-15&16		BOSTON INNER HARBOR
23L074	MINOR	SUMMER STREET BRIDGE	SOUTH BOSTON	15		FORT POINT CHANNEL
23L075	MAJOR	CONGRESS STREET BRIDGE	SOUTH BOSTON	54		FORT POINT CHANNEL
23L140	MINOR	NORTHERN AVENUE	SOUTH BOSTON	10		BOSTON INNER HARBOR
23L145	MINOR	NORTHERN AVENUE	SOUTH BOSTON	10		BOSTON INNER HARBOR
23L164	MAJOR	CONGRESS STREET BRIDGE	BOSTON PROPER	48	1 / 23L164 IN CHANNEL WALL	FORT POINT CHANNEL
23L195	MAJOR	NORTHERN AVENUE	SOUTH BOSTON	36		BOSTON INNER HARBOR
23L196	MAJOR	NEW NORTHERN AVENUE BRIDGE	SOUTH BOSTON	36		FORT POINT CHANNEL
23L202	MAJOR	NORTHERN AVENUE	SOUTH BOSTON	36		BOSTON INNER HARBOR
24L057	MINOR	STATE STREET EXT.	BOSTON PROPER	18x18		BOSTON INNER HARBOR
24L233	MAJOR	ROWE'S WHARF/ATLANTIC AVENUE	BOSTON PROPER	42		BOSTON HARBOR
25L058	MAJOR	CHRISTOPHER COLUMBUS PARK - WATERFRONT	BOSTON PROPER	84		BOSTON INNER HARBOR
25L144	MINOR	CLARK STREET	BOSTON PROPER	12		BOSTON INNER HARBOR
26L055	MAJOR	NEAR BATTERY WHARF	BOSTON PROPER	24X24		BOSTON INNER HARBOR
26L070	MAJOR	HANOVER STREET EXT.	BOSTON PROPER	36		BOSTON INNER HARBOR
26L84	MINOR	LEWIS STREET	EAST BOSTON	18		BOSTON INNER HARBOR
27L020	MAJOR	PIER NO. 4 EASEMENT - NAVY YARD	CHARLESTOWN	2-20&24	1 / 27K020-1	BOSTON INNER HARBOR
28L073	MINOR	EASEMENT/4TH STREET - NAVY YARD	CHARLESTOWN	6		LITTLE MYSTIC CHANNEL
28L074/075/ 076	MAJOR	16TH STREET/4TH AVENUE - NAVY YARD	CHARLESTOWN	3-30		LITTLE MYSTIC CHANNEL
28L077	MINOR	EASEMENT/4TH AVENUE - NAVY YARD	CHARLESTOWN	10		LITTLE MYSTIC CHANNEL
11M093	MAJOR	NEPONSET AVENUE AT NROTHWEST END OF NEPONSET AVENUE BRIDGE	DORCHESTER	48		NEPONSET RIVER
12M091	MAJOR	ERICSSON/WALNUT ST.	NEPONSET/MATTAPAN	36		NEPONSET RIVER
17M033	MAJOR	HARBOR POINT PARK (RELOCATED MT. VERNON ST. DRAIN)	DORCHESTER	72		DORCHESTER BAY
21M005	MAJOR	SUMMER STREET	SOUTH BOSTON	18		RESERVED CHANNEL

ATTACHMENT A
BOSTON WATER AND SEWER COMMISSION
STORMWATER OUTFALLS

29M032	MINOR	CONDOR STREET	EAST BOSTON	30		CHELSEA RIVER
29M041	MAJOR	EASEMENT/CONDOR STREET	EAST BOSTON	36x30		CHELSEA RIVER
29M049	MINOR	CONDOR STREET	EAST BOSTON	24		CHELSEA RIVER
29N135	MAJOR	ADDISON STREET	EAST BOSTON	30x30		CHELSEA RIVER
28N156	MINOR	COLERIDGE STREET EXT.	EAST BOSTON	12		BOSTON HARBOR
29O001	MAJOR	BENNINGTON STREET	EAST BOSTON	66	1 / 290062	BOSTON HARBOR NEAR CONSTITUTION BEACH
31O004	MINOR	EASEMENT/WALDEMAR AVENUE	EAST BOSTON	15		CHELSEA RIVER
28P001	MINOR	EASEMENT	EAST BOSTON	12		BOSTON HARBOR NEAR CONSTITUTION BEACH
29P015	MINOR	EASEMENT/BARNES AVENUE	EAST BOSTON	12		BELLE ISLE INLET
29P044	MINOR	SHAWSHEEN STREET	EAST BOSTON	12		BOSTON HARBOR
30P062	MINOR	PALERMO AVENUE EXTENSION	EAST BOSTON	12		WETLANDS
31P084	MINOR	EASEMENT/BENNINGTON STREET	EAST BOSTON	30		BELLE ISLE INLET, REVERE

Major : 93

Minor : 102

Total: 195

* Major outfall means : An outfall that discharges from a single pipe of 36" or larger in diameter or a non-circular pipe which is associated with drainage area of more than 50 acres; or an outfall that discharges from a single pipe of 12" or larger in diameter serving lands zoned for industrial activity or a non-circular pipe which is associated with drainage area of 2 acres or more.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
JOHN F. KENNEDY FEDERAL BUILDING
BOSTON, MASSACHUSETTS 02203

FACT SHEET

DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES.

NPDES PERMIT NO.: MAS010001

NAME AND ADDRESS OF APPLICANT:

**Boston Water and Sewer Commission
425 Summer Street
Boston, Massachusetts 02210**

NAME AND ADDRESS OF FACILITIES WHERE DISCHARGES OCCUR:

195 Storm water Outfalls listed in Permit Attachment A

RECEIVING WATERS:

Belle Isle Inlet, Boston Harbor, Boston Inner Harbor, Brook Farm Brook, Bussey Brook, Canterbury Brook, Chandler Pond, Charles River, Chelsea River, Dorchester Bay, Fort Point Channel, Goldsmith Brook, Jamaica Pond, Little Mystic Channel, Mill Pond, Millers River, Mother Brook, Muddy River, Mystic River, Neponset River, Old Harbor, Patten's Cove, Reserved Channel, Sprague Pond, Stony Brook, Turtle Pond, and unnamed wetlands, brooks and streams .

CLASSIFICATION: **Class SB and B**

I. Proposed Action, Type of Facility and Discharge Location.

The Boston Water and Sewer Commission (BWSC), the permittee, is empowered to promulgate rules and regulations regarding the use of its common sewers, including its sanitary sewers, combined sewers and storm drains. BWSC applied for its Municipal Separate Storm Sewer System (MS4) permit, which will discharge storm water from 195 identified separate storm sewer outfalls to receiving waters listed in Attachment A.

1. Discharge Characteristics

At the time of this draft, BWSC operates 195 identified separate storm sewer outfalls. Locations, size, and receiving waters for these outfalls are identified in Attachment A. Storm water discharge sampling results from five representative outfalls are shown on Table 3-21 of the permit application (Part II) dated May 17, 1993 and are included as Attachment B. A discussion of the results of sampling can be found in Part II Chapter 3 of the application.

2. Limitations and Conditions.

Permit conditions and all other requirements described herein may be found in Part I of the draft permit. No numeric effluent limitations have been established for this draft permit.

3. Permit Basis and Explanation of Permit Conditions.

As authorized by Section 402(p) of the Act, this permit is being proposed on a system-wide basis. This permit covers all areas under the jurisdiction of BWSC or otherwise contributing to discharges from municipal separate storm sewers owned or operated by the permittee.

a. Statutory basis for permit conditions. The conditions established by this permit are based on Section §402(p)(3)(B) of the Act which mandates that a permit for discharges from MS4s must: effectively prohibit the discharge of non-storm water to the MS4 and require controls to reduce pollutants in discharges from the MS4 to the maximum extent practicable including best management practices, control techniques, and system design and engineering methods, and such other provisions determined to be appropriate. MS4s are required to achieve compliance with Water Quality Standards. Section 301(b)(1)(C) of the Act, requires that NPDES permits include limitations, including those necessary to meet water quality standards. The intent of the permit conditions is to meet the statutory mandate of the Act.

EPA has determined that under the provisions of 40 CFR 122.44(k) the permit will include Best Management Practices (BMPs). A comprehensive Storm Water Management Program (SWMP) includes BMPs to demonstrate compliance with the maximum extent practicable standard. Section 402(p)(3)(B)(iii) of the Act clearly includes structural controls as a component of the maximum extent practicable requirement as necessary to achieve compliance with Water Quality Standards.

EPA encourages the permittee to explore opportunities for pollution prevention measures, while reserving the more costly structural controls for higher priority watersheds, or where pollution prevention measures prove unfeasible or ineffective in achieving water quality goals and standards.

b. Regulatory basis for permit conditions. As a result of the statutory requirements of the Act the EPA promulgated the MS4 Permit application regulations, 40 CFR 122.26(d). These regulations describe in detail the permit application requirements for operators of MS4s. The information in the application (Parts 1 and 2) and supplemental information provided in June 1995 and June 1998 was used to develop the draft permit conditions.

4. Discharges Authorized By This Permit.

a. Storm water. This permit authorizes all existing or new storm water point source discharges to waters of the United States from the MS4.

b. Non-storm water. This permit authorizes the discharge of storm water commingled with flows contributed by wastewater, or Storm Water Associated with Industrial Activity, provided such discharges are authorized by separate NPDES permits and in compliance with the permittee's regulations regarding the use of storm drains. Nothing in this draft permit conveys a right to discharge to the permittee's system without the permittee's authorization. In addition, certain types of non-storm waters identified in the draft permit at Part I.B.2.g. are authorized if appropriately addressed in the permittee's Storm Water Management Program.

The following demonstrates the difference between the Act's statutory requirements for discharges from municipal storm sewers and industrial sites:

i. Section 402(p)(3)(B) of the Act requires an effective prohibition on non-storm water discharges to a MS4 and controls to reduce the discharge of pollutants from the MS4 to the Maximum Extent Practicable (MEP).

ii. Section 402(p)(3)(A) of the Act requires compliance with treatment technology (BAT/BCT) and Section 301 water quality requirements on discharges of Storm Water Associated with Industrial Activity.

The Act requires Storm Water Associated with Industrial Activity discharging to the MS4 to be covered by a separate NPDES permit. However, the permittee is responsible for the quality of the ultimate discharge, and has a vested interest in locating uncontrolled and unpermitted discharges to the system.

c. Spills. This permit does not authorize discharges of material resulting from a spill. If discharges from a spill are unavoidable to prevent imminent threat to human life, personal injury, or severe property damage, the permittee has the responsibility to take (or insure the party responsible for the spill takes) reasonable and prudent measures to minimize the impact of discharges on human health and the environment.

5. Receiving Stream Segments and Discharge Locations.

The permittee discharges to the receiving waters listed in Attachment A, which are classified according to the Massachusetts Surface Water Quality Standards as Class B, B_{CSO}, SB, and SB_{CSO} water bodies. Despite variance conditions and CSO designation, storm water discharges shall achieve compliance with Class B and SB standards. Class B and SB waters shall be of such quality that they are suitable for the designated uses of protection and propagation of fish, other aquatic life and wildlife; and for primary and secondary contact recreation. Notwithstanding specific conditions of this permit, the discharges must not lower the quality of any classified water body below such classification, or lower the existing quality of any water body if the existing quality is higher than the classification, except in accordance with Massachusetts' Antidegradation Statutes and Regulations.

6. SWMP.

The following prohibitions apply to discharges from MS4s and were considered in review of the current management programs which the permittee is operating. In implementing the SWMP, the permittee is required to select measures or activities intended to achieve the following prohibitions.

No discharge of toxics in toxic amounts. The discharge of toxics in toxic amounts is prohibited (Section 101(a)(3) of the Act).

No discharge of pollutants in quantities that would cause a violation of State water quality standards. Section 301(b)(1)(C) of the Act and 40 CFR 122.44(d) require that NPDES permits include "...any more stringent limitations, including those necessary to meet water quality standards, treatment standards, or schedule of compliance, established pursuant to State law or regulations..." Implementation of the SWMP is reasonably expected to provide for protection of State water quality standards.

No discharge of non-storm water from the municipal separate storm sewer system, except in accordance with Part II.B.2. Permits issued to MS4s are specifically required by Section 402(p)(3)(B) of the Act to "...include a requirement to effectively prohibit non-storm water discharges into the storm sewers..." The regulations (40 CFR 122.26(d)(2)(iv)(B)(1)) allow the permittee to accept certain non-storm water discharges where they have not been identified as significant sources of pollutants. Any discharge allowed by the permittee and authorized by a separate NPDES permit is not subject to the prohibition on non-storm water discharges.

No numeric effluent limitations are proposed in the draft permit. In accordance with 40 CFR §122.44(k), the EPA has required a series of Best Management Practices, in the form of a comprehensive SWMP, in lieu of numeric limitations.

7. Storm Water Management Program.

BWSC provided updates to its SWMP in June 1995 and June 1998. The current SWMP addresses all required elements. Some of the elements of the SWMP are wholly or in part the responsibility of the City of Boston rather than BWSC. The permit requires the permittee to cooperate with appropriate municipal agencies to assure that the goals of the SWMP are achieved by building upon existing programs and procedures which address activities impacting storm water discharges to the MS4.

EPA has requested permit application information from the City of Boston. This information will be used to develop permit conditions for the City to implement the SWMP measures which are under its control. This will be effected through a permit modification identifying the City as a co-permittee and specifying its responsibilities or through the issuance of a separate permit to the City.

Table A identifies the required elements of the SWMP, the regulatory cite, and the relevant draft permit condition.

Table A - Storm Water Management Program Elements

Required Program Element	Permit Parts	Regulatory References (40 CFR 122.26...)
Structural Controls	I.B.2.b	(d) (2) (iv) (A) (1)
Areas of new development & significant redevelopment	I.B.2.c	(d) (2) (iv) (A) (2)
Roadways	I.B.2.d	(d) (2) (iv) (A) (3)
Flood Control Projects	I.B.2.e	(d) (2) (iv) (A) (4)
Pesticides, Herbicides, & Fertilizers Application	I.B.2.f	(d) (2) (iv) (A) (6)
Illicit Discharges and Improper Disposal	I.B.2.g	(d) (2) (iv) (B) (1) - (3), (iv) (B) (7)
Spill Prevention and Response	I.B.2.h	(d) (2) (iv) (B) (4)
Industrial and High Risk Runoff	I.B.2.i	(d) (2) (iv) (C), (iv) (A) (5)
Construction Site Runoff	I.B.2.j	(d) (2) (iv) (D)
Public Education	I.B.2.k	(d) (2) (iv) (A) (6), (iv) (B) (5), (iv) (B) (6)
Monitoring Program	I.C	(d) (2) (iv) (B) (2), (iii), (iv) (A), (iv) (C) (2)

Attachment C provides a discussion of the permit condition and the permittee's existing SWMP.

8. Legal Authority. BWSC has demonstrated its authority to promulgate regulations regarding the use of its common sewers, including its sanitary sewers, combined sewers and storm drains. Regulations Governing the Use of Sanitary and Combined Sewers and Storm Drains of the Boston Water and Sewer Commission were adopted January 15, 1998 and effective February 27, 1998.

9. **Resources.** Part I.B.6 of the permit requires the permittee to provide adequate support capabilities to implement its activities under the SWMP. Compliance with this requirement will be demonstrated by the permittee's ability to fully implement the SWMP, monitoring programs, and other permit requirements. The permit does not require specific funding or staffing levels, thus providing the permittee with the ability, and incentive, to adopt the most efficient and cost effective methods to comply with the permit requirements. The draft permit also requires an Annual Report (Part I.E.) which includes an evaluation of resources to implement the plan.

10. **Monitoring and Reporting.**

a. Monitoring. The BWSC sampled five locations which were selected to provide representative data on the quality and quantity of discharges from the MS4 as a whole. Parameters sampled included conventional, non-conventional, organic toxics, and other toxic pollutants. The EPA reviewed this information during the permitting process. Monitoring data is intended to be used by the BWSC to assist in its determination of appropriate storm water management practices. EPA used the data to identify the minimum parameters for sampling under Part I.C of the permit.

The BWSC is required (40 CFR §122.26(d)((2)(iii)(C) and (D)) to monitor the MS4 to provide data necessary to assess the effectiveness and adequacy of SWMP control measures; estimate annual cumulative pollutant loadings from the MS4; estimate event mean concentrations and seasonal pollutants in discharges from major outfalls; identify and prioritize portions of the MS4 requiring additional controls, and identify water quality improvements or degradation. The BWSC is responsible for conducting any additional monitoring necessary to accurately characterize the quality and quantity of pollutants discharged from the MS4.

EPA will make future permitting decisions based on the monitoring data collected during the permit term and available water quality information. Where the required permit term monitoring proves insufficient to show pollutant reductions, the EPA may require more stringent Best Management Practices, or where necessary to protect water quality, establish numeric effluent limitations.

1. Representative monitoring: The monitoring of the discharge of representative outfalls during actual storm events will provide information on the quality of runoff from the MS4, a basis for estimating annual pollutant loadings, and a mechanism to evaluate reductions in pollutants discharged from the MS4. Results from the monitoring program will be submitted annually with the annual report.

2. Requirements: The BWSC shall monitor representative discharges to characterize the quality of storm water discharges from the MS4. Within 90 days after the effective date of this permit, the BWSC will submit its proposed sampling plan. The BWSC shall choose five locations representing the different land uses or drainage areas representative of the system, with a focus on what it considers priority areas, such as an outfall in the vicinity of a public beach or a shellfish bed. This submittal shall also include any related monitoring which the BWSC has done since its MS4 permit application was submitted. Unless commented on or denied by the Director within 60 days after its submittal, the proposed sampling plan shall be deemed approved.

3. Parameters: The EPA established minimum permit parameter monitoring requirements based on the information available regarding storm water discharges and potential impacts of these discharges. The basic parameter list allows satisfaction of the regulatory requirement [40 CFR §122.26(d)(2)(iii)] to provide estimates of pollutant loadings for each major outfall.

4. Frequency: The frequency of annual monitoring is based on monitoring at least one representative storm event three times a year. The plan should consider sampling events in the spring, summer, and fall (excluding January to March). Monitoring frequency is based on permit year, not a calendar year. The first complete calendar year monitoring could be less than the stated frequency.

5. Receiving Water Quality Monitoring: The draft permit is conditioned to include four sampling stations to assess the impact of storm water discharges from the MS4 to receiving waters. The permittee shall submit a plan to sample four locations three times a year for the permit term within 90 days of the effective date of the permit. The minimum parameters for analysis are consistent with the representative monitoring requirements.

b. Screening. The draft permit requires two screening programs. Part I.C.6 requires the permittee to develop a Wet Weather Screening Program. This screening shall record physical observations of wet weather flows from all major outfalls at least once during the permit term. The program will identify discharges which may be contributing to water quality impairments short of analytical monitoring. Part I.D. requires a dry weather screening program.

c. Reporting. The permittee is required (40 CFR §122.42(c) (1)) to contribute to the preparation of an annual system-wide report including the status of implementing the SWMP; proposed changes to the SWMP; revisions, if necessary, to the assessments of controls and the fiscal analysis reported in the permit application; a summary of the data, including monitoring data, that is accumulated throughout the reporting year; annual expenditures and the budget for the year following each annual report; a summary describing the number and nature of enforcement actions, inspections, and public education programs; and identification of water quality improvements or degradation. Part I.E. of the draft permit requires the permittee to do annual evaluations on the effectiveness of the SWMP, and institute or propose modifications necessary to meet the overall permit standard of reducing the discharge of pollutants to the maximum extent practicable. In order to allow the orderly collection of budgetary and monitoring data it was determined to establish the annual report due date relative to the permittee's annual fiscal year. BWSC's fiscal year ends on **December 31** and the annual report is due on **March 1** each year commencing March 1, 1999.

11. Permit Modifications.

a. Reopener Clause. The EPA may reopen and require modifications to the permit (including the SWMP) based on the following factors: changes in the State's Water Quality Management Plan and State or Federal requirements; adding co-permittee(s); SWMP changes impacting compliance with permit requirements; other modifications deemed necessary by the EPA to adhere to the requirements of the Clean Water Act. Co-permittees may be incorporated into this permit or separate permits may be required as necessary to achieve the goals of the SWMP. Implementation of the SWMP is expected to result in the protection of water quality. The draft permit contains a reopener clause should new information indicate that the discharges from the MS4 are causing, or are significantly contributing to, a violation of the State's water quality standards.

b. SWMP Changes. The SWMP is intended to be a tool to achieve the maximum extent practicable and water quality standards. Therefore, minor changes and adjustments to the various SWMP elements are expected and encouraged where necessary. Changes may be necessary to more successfully adhere to the goals of the permit. Part I.B.7.c of the draft permit describes the allowable procedure for the permittee to make changes to the SWMP. Any changes requested by a permittee shall be reviewed by the EPA and DEP. The EPA and DEP have 60 days to respond to the permittee and inform the permittee if the suggested changes will impact or change the SWMP's compliance with a permit requirement.

c. Additions. The EPA intends to allow the permittee to annex lands, activate new outfalls, deactivate existing outfalls, and accept the transfer of operational authority over portions of the MS4 without mandating a permit modification. Implementation of appropriate SWMP elements for these additions (annexed land or transferred authority) is required. Upon notification of the additions in the Annual Report, the EPA shall review the information to determine if a modification to the permit is necessary based on changed circumstances.

The remaining conditions of the permit are based on the NPDES regulations, 40 CFR Parts 122 through 125, and consist primarily of management requirements common to all permits.

II. State Certification Requirements.

EPA may not issue a permit unless the State Water Pollution Control Agency with jurisdiction over the receiving waters certifies that the effluent limitations contained in the permit are stringent enough to assure that the discharge will not cause the receiving water to violate State Water Quality Standards. The staff of the Massachusetts Department of Environmental Protection has reviewed the draft permit and advised EPA that the limitations are adequate to protect water quality. EPA has requested permit certification by the State and expects that the draft permit will be certified.

III. Comment Period, Hearing Requests and Procedures for Final Decisions.

All persons, including applicants, who believe any condition of the draft permit is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the public comment period, to the U.S. EPA, Planning and Administration (SPA), P.O. Box 8127, Boston, MA 02114. Any person, prior to such date, may submit a request in writing for a public hearing to consider the draft permit to EPA and the State Agency. Such requests shall state the nature of the issues proposed to be raised in the hearing. A public hearing may be held after at least thirty days public notice whenever the Regional Administrator finds that response to this notice indicates significant public interest. In reaching a final decision on the draft permit the Regional Administrator will respond to all significant comments and make those responses available to the public at EPA's Boston Office.

Following the close of the comment period, and after a public hearing, if such hearing is held, the Regional Administrator will issue a final permit decision and forward a copy of the final decision to the applicant and to each person who has submitted written comments or requested notice. Within 30 days following the notice of the final permit decision any interested person may submit a request for a formal hearing to reconsider or contest the final decision. Requests for formal hearings must satisfy the requirements of 40 CFR §124.74, 48 Fed. Reg. 14279-14280 (April 1, 1983).

IV. EPA Contact

Additional information concerning the draft permit may be obtained between the hours of 9:00 a.m. and 5:00 p.m., Monday through Friday, excluding holidays from:

Jay Brolin
U.S. Environmental Protection Agency
John F. Kennedy Federal Building
Office of Ecosystem Protection (CMA)
Boston, MA 02203-0001
Telephone: (617) 565-9453 Fax: (617) 565-4940

September 2, 1998
Date

Linda M. Murphy, Director
Office of Ecosystem Protection
U.S. Environmental Protection Agency

Attachment C

Structural Controls: The permittee shall operate the separate storm sewer system and any storm water structural controls in a manner to reduce the discharge of pollutants to the Maximum Extent Practicable. The permittee's existing SWMP includes operation and maintenance procedures to include an inspection schedule of storm water structural controls adequate to satisfy the permit condition.

Areas of New Development and Significant Redevelopment: The permittee has no authority over land use issues. The draft permit is conditioned to require the permittee to coordinate with the appropriate municipal agencies as it relates to discharges to the MS4. The permittee has its own site plan review process relating to new or modified connections for water, sewer, and drains and has the authority to require controls on discharges to the storm drain system during and after construction.

Roadways: The permittee has no authority to ensure that public streets, roads, and highways are operated and maintained in a manner to minimize discharge of pollutants, including those pollutants related to deicing or sanding activities. The draft permit is conditioned to require the permittee to coordinate with appropriate municipal agencies as it relates to discharge to the MS4.

Pesticide, Herbicide, and Fertilizer Application: The permittee shall coordinate with appropriate municipal agencies to evaluate existing measures to reduce the discharge of pollutants related to the storage and application of pesticides, herbicides, and fertilizers applied to public property.

Non-Storm Water discharges: Non-storm water discharges shall be effectively prohibited. However, the permittee may allow certain non-storm water discharges as listed in 122.26(d)(2)(iv)(B)(1) and Part I.B.2 of the draft permit. The permittee has identified allowable non-storm water discharges in its regulations.

The permittee shall implement controls to prevent discharges of dry and wet weather overflows from sanitary sewers into the MS4. The permittee shall also control the infiltration of seepage from sanitary sewers into the MS4. This is presently accomplished through the permittee's illicit connection program and it's Inflow/Infiltration program.

The discharge or disposal of used motor vehicle fluids, household hazardous wastes, grass clippings, leaf litter, and animal wastes into the MS4 is prohibited in accordance with the permittee's regulations. The permittee shall coordinate with appropriate

regulations. The permittee shall coordinate with appropriate public and private agencies to ensure continued implementation of programs to collect used motor vehicle fluids (at a minimum, oil and antifreeze) for recycle, reuse, or proper disposal and to collect household hazardous waste materials (including paint, solvents, pesticides, herbicides, and other hazardous materials) for recycle, reuse, or proper disposal. The City of Boston has an existing program.

Illicit Discharges and Improper Disposal: The BWSC shall continue to implement its program to locate and eliminate illicit discharges and improper disposal into the MS4. This program shall include dry weather screening activities to locate portions of the MS4 with suspected illicit discharges and improper disposal. Follow-up activities to eliminate illicit discharges and improper disposal may be prioritized on the basis of magnitude and nature of the suspected discharge; sensitivity of the receiving water; and/or other relevant factors. This program shall establish priorities and schedules for screening the entire MS4 at least once every five years. At present the permittee has on-going programs in Brighton (BOS 032) discharges to the Charles River, discharges to Brookline's Village and Tannery Brook drainage systems, and discharges through Dedham to Mother Brook. Facility inspections may be carried out in conjunction with other programs (e.g. pretreatment inspections of industrial users, health inspections, fire inspections, etc.).

The BWSC shall eliminate illicit discharges as expeditiously as possible and require the immediate termination of improper disposal practices upon identification of responsible parties. Where elimination of an illicit discharge within sixty (60) days is not possible, the BWSC shall establish an expeditious schedule for removal of the discharge. In the interim, the BWSC shall take all reasonable and prudent measures to minimize the discharge of pollutants to the MS4.

Spill Prevention and Response: The permittee shall coordinate with appropriate municipal agencies to implement a program to prevent, contain, and respond to spills that may discharge into the MS4. The existing spill response program in the City includes a combination of spill response actions by the permittee, municipal agencies and private entities. The permittee's regulations include legal requirements for public and private entities within the permittee's jurisdiction.

Industrial & High Risk Runoff: The permittee shall coordinate with EPA and DEP to develop a program to identify and control pollutants in storm water discharges to the MS4 from municipal landfills; other treatment, storage, or disposal facilities for municipal waste (e.g. transfer stations, incinerators, etc.);

hazardous waste treatment, storage, disposal and recovery facilities and facilities that are subject to EPCRA Title III, Section 313; and any other industrial or commercial discharge which the permittee determine is contributing a substantial pollutant loading to the MS4 shall be implemented. The program shall include inspections, a monitoring program and a list of industrial storm water sources discharging to the MS4 which shall be maintained and updated as necessary. This requirement is not meant to cover all such discharges, but is intended to prioritize those discharges from this group which are believed to be contributing pollutants to the MS4 and to identify those dischargers which may require NPDES permit coverage or are not in compliance with existing permits.

Construction Site Runoff: The permittee shall coordinate with appropriate municipal agencies to implement a program to reduce the discharge of pollutants from construction sites to the separate storm sewer. This program shall include: requirements for the use and maintenance of appropriate structural and non-structural control measures to reduce pollutants discharged to the MS4 from construction sites; inspection of construction sites and enforcement of control measure requirements required by the permittee; appropriate education and training measures for construction site operators; and notification of appropriate building permit applicants of their potential responsibilities under the NPDES permitting program for construction site runoff and any post-construction permitting.

Public Education: The permittee shall coordinate with appropriate municipal agencies to implement a public education program with the following elements: (a) a program to promote, publicize, and facilitate public reporting of the presence of illicit discharges or improper disposal of materials into the MS4; (b) a program to promote, publicize, and facilitate the proper management and disposal of used oil and household hazardous wastes; and (c) a program to promote, publicize, and facilitate the proper use, application, and disposal of pesticides, herbicides, and fertilizers.

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 5, 2017, I served the:

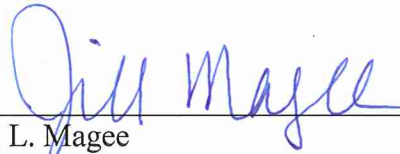
- **California Regional Water Quality Control Board (CRWQCB) Santa Ana Region's Response to the Request for Additional Briefing filed May 31, 2017**
- **California State Association of Counties (CSAC's) Response to the Request for Additional Briefing filed May 31, 2017**
- **Claimants' Response to the Request for Additional Briefing filed May 31, 2017**
- **Finance's Response to the Request for Additional Briefing filed May 31, 2017**

California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2010-0033, 10-TC-07

County of Riverside, Riverside County Flood Control and Water Conservation District, Cities of Beaumont, Corona, Hemet, Lake Elsinore, Moreno Valley, Perris, and San Jacinto, Co-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 June 5, 2017 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: 5/2/17

Claim Number: 10-TC-07

Matter: California Regional Water Quality Control Board, Santa Ana Region, Order No. R8-2010-0033

Claimants: City of Beaumont
City of Corona
City of Hemet
City of Lake Elsinore
City of Moreno Valley
City of Perris
City of San Jacinto
County of Riverside
Riverside County Flood Control and Water Conservation 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.)

Nino Abad, Principal Engineer, *City of Hemet*
510 E. Florida Avenue, Hemet, CA 92543
Phone: (951) 765-2360
nabad@cityofhemet.org

Paul Angulo, Auditor-Controller, *County of Riverside*
4080 Lemon Street, 11th Floor, Riverside, CA 92502
Phone: (951) 955-3800
pangulo@rivco.org

Ahmad Ansari, Public Works Director/City Engineer, *City of Moreno Valley*
14177 Frederick Street, Moreno Valley, CA 92553
Phone: (951) 413-3105
ahmada@moval.org

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

Raul Arevalo, Operations Analyst, *City of Corona*

Department of Water and Power, 755 Public Safety Way, Corona, CA 92880
Phone: (951) 739-4915
Raul.Arevalo@ci.corona.ca.us

Harmeet Barkschat, *Mandate Resource Services, LLC*
5325 Elkhorn Blvd. #307, Sacramento, CA 95842
Phone: (916) 727-1350
harmeet@calsdrc.com

Lacey Baysinger, *State Controller's Office*
Division of Accounting and Reporting, 3301 C Street, Suite 700, Sacramento, CA 95816
Phone: (916) 324-0254
lbaysinger@sco.ca.gov

Richard Belmudez, *City Manager, City of Perris*
101 N. D Street, Perris, CA 92570
Phone: (951) 943-6100
rbelmudez@cityofperris.org

Shanda Beltran, *General Counsel, Building Industry Legal Defense Foundation*
Building Association of Southern California, 17744 Sky Park Circle, Suite 170, Irvine, CA 92614
Phone: (949) 553-9500
sbeltran@biasec.org

Kurt Berchtold, *Executive Officer, Santa Ana Regional Water Quality Control Board*
3737 Main Street, Suite 500, Riverside, CA 92501-3348
Phone: (951) 782-3286
kberchtold@waterboards.ca.gov

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

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

J. Bradley Burgess, *MGT of America*
895 La Sierra Drive, Sacramento, CA 95864
Phone: (916) 595-2646
Bburgess@mgtamer.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

Gwendolyn Carlos, *State Controller's Office*
Division of Accounting and Reporting, 3301 C Street, Suite 700, Sacramento, CA 95816
Phone: (916) 323-0706
gcarlos@sco.ca.gov

Ron Carr, *Assistant City Manager, City of Perris*
101 North D Street, Perris, CA 92570

Phone: (951) 943-6100
rcarr@cityofperris.org

Daniel Carrigg, Deputy Executive Director/Legislative Director, *League of California Cities*
1400 K Street, Suite 400, Sacramento, CA 95814
Phone: (916) 658-8222
Dcarrigg@cacities.org

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

Carolyn Chu, Senior Fiscal and Policy Analyst, *Legal Analyst's Office*
925 L Street, 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

Anita Dagan, Manager, Local Reimbursement Section, *State Controller's Office*
Local Government Programs and Services Division, Bureau of Payments, 3301 C Street, Suite 740,
Sacramento, CA 95816
Phone: (916) 324-4112
Adagan@sco.ca.gov

Michelle Dawson, City Manager, *City of Moreno Valley*
14177 Frederick Street, Moreno Valley, CA 92552-0805
Phone: (951) 413-3020
michelled@moval.org

Marieta Delfin, *State Controller's Office*
Division of Accounting and Reporting, 3301 C Street, Suite 700, Sacramento, CA 95816
Phone: (916) 322-4320
mdelfin@sco.ca.gov

Donna Ferebee, *Department of Finance*
915 L Street, Suite 1280, Sacramento, CA 95814
Phone: (916) 445-3274
donna.ferebee@dof.ca.gov

Susan Geanacou, *Department of Finance*
915 L Street, Suite 1280, Sacramento, CA 95814
Phone: (916) 445-3274
susan.geanacou@dof.ca.gov

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

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

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

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

Katie Hockett, Operations Manager, *City of Corona*
Department of Water and Power, 755 Public Safety Way, Corona, CA 92880
Phone: (951) 279-3601
Katie.Hockett@ci.corona.ca.us

Dorothy Holzem, Legislative Representative, *California State Association of Counties*
1100 K Street, Suite 101, Sacramento, CA 95814
Phone: (916) 327-7500
dholzem@counties.org

Justyn Howard, Program Budget Manager, *Department of Finance*
915 L Street, Sacramento, CA 95814
Phone: (916) 445-1546
justyn.howard@dof.ca.gov

Thomas Howard, Executive Director, *State Water Resources Control Board*
P.O. Box 2815, Sacramento, CA 95812-2815
Phone: (916) 341-5599
thoward@waterboards.ca.gov

Aftab Hussain, Public Works Utility Manager, *City of Beaumont*
550 E. Sixth Street, Beaumont, CA 92223
Phone: (951) 769-8520
ahussain@ci.beaumont.ca.us

Mark Ibele, *Senate Budget & Fiscal Review Committee*
California State Senate, State Capitol Room 5019, Sacramento, CA 95814
Phone: (916) 651-4103
Mark.Ibele@sen.ca.gov

Amer Jakher, Director of Public Works, *City of Beaumont*
550 E. Sixth Street, Beaumont, CA 92223
Phone: (951) 769-8520
Ajakher@ci.beaumont.ca.us

Kris Jensen, Public Works Director, *City of Hemet*

3777 Industrial Ave, Hemet, CA 92545
Phone: (951) 765-3823
kjensen@cityofhemet.org

Edward Jewik, *County of Los Angeles*
Auditor-Controller's Office, 500 W. Temple Street, Room 603, Los Angeles, CA 90012
Phone: (213) 974-8564
ejewik@auditor.lacounty.gov

Rob Johnson, City Manager, *City of San Jacinto*
595 S. San Jacinto Ave., Bldg. A, San Jacinto, CA 92583
Phone: (951) 487-7330
rjohnson@sanjacintoca.us

Jill Kanemasu, *State Controller's Office*
Division of Accounting and Reporting, 3301 C Street, Suite 700, Sacramento, CA 95816
Phone: (916) 322-9891
jkanemasu@sco.ca.gov

Anne Kato, *State Controller's Office*
Division of Accounting and Reporting, 3301 C Street, Suite 700, Sacramento, CA 95816
Phone: (916) 324-5919
akato@sco.ca.gov

Anita Kerezi, *AK & Company*
3531 Kersey Lane, Sacramento, CA 95864
Phone: (916) 972-1666
akcompany@um.att.com

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

Hortensia Mato, *City of Newport Beach*
100 Civic Center Drive, Newport Beach, CA 92660
Phone: (949) 644-3000
hmato@newportbeachca.gov

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

Alexander Meyerhoff, City Manager, *City of Hemet*
445 E. Florida Avenue, Hemet, CA 92543
Phone: (951) 765-2301
ameyerhoff@cityofhemet.org

Meredith Miller, Director of SB90 Services, *MAXIMUS*
3130 Kilgore Road, Suite 400, Rancho Cordova, CA 95670
Phone: (972) 490-9990
meredithcmiller@maximus.com

Tom Moody, Assistant General Manager, *City of Corona*
Department of Water and Power, 755 Public Safety Way, Corona, CA 92880
Phone: (951) 279-3660
Tom.Moody@ci.corona.ca.us

Dan Mudrovich, Water Superintendent, *City of San Jacinto*
270 Bissell Place, San Jacinto, CA 92582
Phone: (951) 654-4041
dmudrovich@sanjacintoca.us

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

Nelson Nelson, Principal Engineer, *City of Corona*
400 S. Vicentia Ave, Corona, CA 92882
Phone: (951) 736-2266
nelson.nelson@ci.corona.ca.us

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*
P.O. Box 100, Sacramento, CA 95812
Phone: (916) 322-3313
Adriana.nunez@waterboards.ca.gov

Lori Okun, Assistant Chief Counsel, *State Water Resources Control Board*
Regional Water Board Legal Services, 1001 I Street, Sacramento, CA 95814
Phone: (916) 341-5165
Lori.Okun@waterboards.ca.gov

Jay Orr, Chief Executive Officer, *County of Riverside*
4080 Lemon Street, 4th Floor, Riverside, CA 92501
Phone: (951) 955-1100
jorr@rivco.org

Arthur Palkowitz, *Artiano Shinoff*
2488 Historic Decatur Road, Suite 200, San Diego, CA 92106
Phone: (619) 232-3122
apalkowitz@as7law.com

Todd Parton, City Manager, *City of Beaumont*
550 E. 6th Street, Beaumont, CA 92223
Phone: (951) 769-8520
TParton@ci.beaumont.ca.us

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

Jeff Potts, Environmental Compliance Coordinator, *City of Corona*
Department of Water and Power, 755 Public Safety Way, Corona, CA 92880
Phone: (951) 736-2442
Jeff.Potts@ci.corona.ca.us

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@atc.sbcounty.gov

Mark Rewolinski, *MAXIMUS*

808 Moorefield Park Drive, Suite 205, Richmond, VA 23236

Phone: (949) 440-0845

markrewolinski@maximus.com

David Rice, *State Water Resources Control Board*

1001 I Street, 22nd Floor, Sacramento, CA 95814

Phone: (916) 341-5161

davidrice@waterboards.ca.gov

Nick Romo, Policy Analyst, *League of California Cities*

1400 K Street, Suite 400, Sacramento, CA 95814

Phone: (916) 658-8254

nromo@cacities.org

Carla Shelton, *Commission on State Mandates*

980 9th Street, Suite 300, Sacramento, CA 95814

Phone: (916) 327-6490

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

Jim Spano, Chief, Mandated Cost Audits Bureau, *State Controller's Office*

Division of Audits, 3301 C Street, Suite 700, Sacramento, CA 95816

Phone: (916) 323-5849

jspano@sco.ca.gov

Dennis Speciale, *State Controller's Office*

Division of Accounting and Reporting, 3301 C Street, Suite 700, Sacramento, CA 95816

Phone: (916) 324-0254

DSpeciale@sco.ca.gov

Tracy Sullivan, Legislative Analyst, *California State Association of Counties (CSAC)*

Government Finance and Administration, 1100 K Street, Suite 101, Sacramento, CA 95814

Phone: (916) 650-8124

tsullivan@counties.org

Darrell Talbert, City Manager, *City of Corona*

400 South Vicentia Avenue, Corona, CA 92882

Phone: (951) 279-3670

darrell.talbert@ci.corona.ca.us

Rita Thompson, NPDES Coordinator, *City of Lake Elsinore*

130 South Main Street, Lake Elsinore, CA 92530

Phone: (951) 674-3124

rthompson@lake-elsinore.org

Jolene Tollenaar, *MGT of America*

2251 Harvard Street, Suite 134, Sacramento, CA 95815

Phone: (916) 443-411

jolene_tollenaar@mgtamer.com

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

Jason Uhley, General Manager - Chief Engineer, *Riverside County Flood Control and Water Conservation District*, 1995 Market Street, Riverside, CA 95201
Phone: (951) 955-1201
juhley@rivco.org

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

Jennifer Whiting, Assistant Legislative Director, *League of California Cities*
1400 K Street, Suite 400, Sacramento, CA 95814
Phone: (916) 658-8249
jwhiting@cacities.org

Patrick Whitnell, General Counsel, *League of California Cities*
1400 K Street, Suite 400, Sacramento, CA 95814
Phone: (916) 658-8281
pwhitnell@cacities.org

Hasmik Yaghobyan, *County of Los Angeles*
Auditor-Controller's Office, 500 W. Temple Street, Room 603, Los Angeles, CA 90012
Phone: (213) 974-9653
hyaghobyan@auditor.lacounty.gov

Grant Yates, City Manager, *City of Lake Elsinore*
130 South Main Street, Lake Elsinore, CA 92530
Phone: (951) 674-3124
gyates@lake-elsinore.org