

Exhibit A

October 7, 2011 MS4 Permit

Fact Sheet

Responsiveness Summary

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.

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.

Responsiveness Summary

National Pollutant Discharge Elimination System (NPDES) Permit Renewal

NPDES PERMIT NUMBER: DC0000221

PERMITTEE NAME and MAILING ADDRESS:

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

FACILITY LOCATION:

Municipal Separate Storm Sewer System (MS4)

RECEIVING STREAM:

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

PUBLIC REVIEW and COMMENT PERIOD:

April 21, 2010 to June 4, 2010

COMMENTERS:

1. Alice Ferguson Foundation, Inc., Tracy Bowen (June 4, 2010)
2. Anacostia Watershed Citizens Advisory Committee, Mike R. Smith (June 4, 2010)
3. Anacostia Watershed Society (form letters) (May – June, 2010)
4. Bekele, Jerusalem (May 28, 2010)
5. Casey Trees, Mark Buscaino (May 13, 2010)
6. Chesapeake Bay Foundation, Lee Epstein (June 4, 2010) and William C. Baker (June 9, 2011).
7. CONTECH® Stormwater Solutions, Dionne Driscoll (June 2, 2010)
8. Council of the District of Columbia, Council Members (June 4, 2010)
9. Departments of the Navy, Army, and Air Force, S.G. Womack [Navy] (May 27, 2010)
10. District of Columbia Building Industry Association, Merrick Malone (June 4, 2010)
11. District Department of the Environment, Hamid Karimi (comment letter dated June 4, 2010; superseding Comment letter dated June 21, 2010; supplement to June 21, 2010 comments to include claimed new authority dated July 22, 2010; and second supplement to June 21, 2010 comments to include claimed new authority dated November 3, 2010)
12. District of Columbia Water & Sewer Authority (DC WASA) (a/k/a DC Water), George Hawkins (June 4, 2010)
13. Earthjustice [Representing: Anacostia Riverkeeper, Potomac Riverkeeper, Waterkeeper Alliance, and D.C. Environmental Network], Jennifer Chavez (June 4, 2010)

14. Friends of Rock Creek's Environment, Beth Mullin (June 4, 2010)
 15. Licsko, Z. John (June 4, 2010)
 16. Maryland-National Capital Building Industry Association, Raquel Montenegro (June 4, 2010)
 17. Minerva, Dana (June 4, 2010)
 18. National Association of Clean Water Agencies, Keith J. Jones, Esq. (June 4, 2010)
 19. National Association of Flood and Stormwater Management Agencies, Susan Gilson (June 4, 2010)
 20. Natural Resources Defense Council [Representing: see groups below], David Beckman *et al* [see contacts below] (June 4, 2010)
 21. Short Sign-On Letter from groups and contacts below (June 4, 2010)
 22. Smart Growth America, Geoff Anderson (June 4, 2010)
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Today's action involves a renewal of the District of Columbia's (DC or the District) 2004 Municipal Separate Storm Sewer System (MS4) Permit. A procedural history of the Permit, since it was initially issued in 2000, can be found at: http://yosemite.epa.gov/oa/EAB_Web_Docket.nsf/77355bee1a56a5aa8525711400542d23/b5e5b68e89edabe98525714f00731c6f!OpenDocument&Highlight=2,municipal. Today's Fact Sheet also contains information about the history of this Permit.

The U.S. Environmental Protection Agency (EPA or the Agency) public-noticed the Draft DC MS4 Permit renewal on April 21, 2010 (Draft Permit), and solicited comments by advertising the Draft Permit in the Washington Times, posting it to the Agency's website, and mailing it to several organizations (including the Permittee, the Clean Water Act (CWA) Section 401-certifying authority (DC Department of Health), the State of Maryland, the Commonwealth of Virginia, the U.S. Fish and Wildlife Service, and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service). EPA also e-mailed copies to several individuals and environmental organizations. The public comment period closed on June 4, 2010.

In response to the public-notification of the Draft Permit, EPA received comment letters from 21 individual Commenters, as well as one letter (that appeared to be the result of a mass mailing recommended by an environmental organization's website) that resulted in approximately 50 separate form letters from area residents. Overall, the comments received were useful and resulted in an improved Final Permit and Fact Sheet, which are being issued today along with this Responsiveness Summary. Each comment letter contained one or more comments that are individually summarized and responded to below. Each letter is identified by an identifying comment number, the organization/agency on behalf of which the comment was submitted (if any), the name of the person submitting the comment, and the date of the comment. Following the initial information, each comment contained in the letter is summarized and followed by EPA's response.

1. Alice Ferguson Foundation, Inc., Tracy Bowen (June 4, 2010).

- a. The Commenter indicates that the Permit relies heavily on the as-yet “incomplete and unknown” Anacostia River Trash total maximum daily load (TMDL) Implementation Plan. The Commenter states that since the plan is still in development, it is unknown whether it will reach the waste load allocation (WLA) on the Anacostia or be enforceable when non-compliance occurs.

EPA Response: EPA approved the Anacostia River Trash TMDL on September 21, 2010 (available at: http://ddoe.dc.gov/ddoe/frames.asp?doc=/ddoe/lib/ddoe/services/pdf/Final_Anacostia_Trash_TMDL.pdf). Section 4.10.1 of today’s Final Permit incorporates the implementation and compliance requirements of that TMDL.

- b. The Commenter suggests that there is an insufficient definition of public participation for implementation plan development, and that more detail and timelines are needed in Section 8.1 (WQS and TMDL WLA Implementation Plans and Compliance Monitoring). The Commenter also recommends that public participation should be possible throughout the process, and not just during the public comment period.

EPA Response: The Final Permit contains robust opportunities for public participation. For example, Section 2.3 of the Final Permit (Stormwater Management Program Administration/Permittee Responsibilities) lists one of DDOE’s major responsibilities as “[m]aking available to the public and other interested and affected parties, the opportunity to comment on the MS4 stormwater management program.” Also, the Final Permit increases public participation aspects of the Permit, in part by including TMDL WLA Implementation as part of the District’s overall Stormwater Management Plan (SWMP) (moved from Section 8.1 of Draft Permit, “Other Applicable Provisions -- WQS and TMDL WLA Implementation Plans and Compliance Monitoring” to Section 4.10 of Final Permit [“Total Maximum Daily Load (TMDL) Wasteload Allocation (WLA) Planning and Implementation”]). It also requires the Permittee to “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.” (Section 4.9.4.3 of Final Permit). *See also* Sections 4.9.4.1 (requirement to create opportunities for the public to participate in the decision making processes involving the implementation and update of the Permittee’s SWMP); 4.9.4.2 (requirement to 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); 4.9.4.4 (requirement to continue to develop public educational and participation materials in cooperation and coordination with other agencies and organizations in the District); and 4.9.4.5 (requirement to periodically, and at least annually, update its website).

Further, at Section 3, the Final Permit requires that “[a] current plan shall be posted on the District’s website at an easily accessible location at all times” and also that “[n]o 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.”

- c. The Commenter recommends that there be mention of the geographical distribution of street sweeping, particularly whether or not it will occur over the entire Permit region or in specific areas.

EPA Response: Table 3 (Street Sweeping) of the Final Permit specifies the frequency of street sweeping required on specified types of roadways. Street sweeping is to occur throughout the MS4 area at these frequencies. Section 4.3.6.1.

- d. The Commenter states that the Permit needs more detail regarding requirements for a management plan for illegal dumping and improper disposal of refuse in Section 4.7. The Commenter also recommends that the Permit explicitly state that programs on litter reduction, hazardous waste collection and education, illegal dumping enforcement, and other activities be included in the Trash TMDL Implementation Plan.

EPA Response: As to the Anacostia portion of the DC MS4 Permit Area, the Final Permit does not include a requirement for the District to develop a TMDL implementation plan for the Anacostia Trash TMDL. Rather, EPA has determined that a Permit requirement for the District to attain the Anacostia Trash TMDL WLA through a combination of approaches will have the greatest environmental benefit. Reductions must be made through a combination of the following approaches:

- Direct removal from waterbodies, e.g., stream clean-ups, skimmers
- Direct removal from the MS4, e.g., catch basin clean-out, trash racks
- Direct removal prior to entry to the MS4, e.g., street sweeping
- Prevention through additional disposal alternatives, e.g., public trash/recycling collection
- Prevention through waste reduction practices, regulations and/or incentives, e.g., bag fees

Section 4.10.1.

As to the portion of the DC MS4 service area that discharges to the Potomac River, the Potomac River Watershed Trash Treaty, convened by the Commenter, commits the 140-plus signers to achieving a “Trash Free Potomac” by supporting and implementing regional strategies aimed at reducing trash and increasing recycling; increasing education and awareness of the trash issue throughout the Potomac Watershed; and reconvening annually to discuss and evaluate measures and actions addressing trash reduction. See Mayor Anthony Williams, *et al.*, *Potomac River Watershed Trash Treaty* (undated) (http://www.fergusonfoundation.org/trash_initiative/trashtreaty_currentSECURE.pdf). EPA expects that for the Potomac, the District will rely on approaches similar to that for the Anacostia, as discussed above.

Further, Section 4.9.4.1 of the Final Permit specifies that that District “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.” Also, under Section 4.9.4.1, “[t]he Permittee shall continue to implement its process for consideration of public comments on their SWMP.” EPA encourages the Commenter to provide comment on the District’s SWMP regarding illegal dumping and improper disposal programs when those programs are being developed and/or updated during the Permit term.

- e. The Commenter states that there is no specific mention of litter reduction and illegal dumping education in Section 4.9.1, and recommends that it be included.

EPA Response: The previous permit (2004) established an education and outreach program, which included education about litter reduction and illegal dumping. *See* pp. 8-10; 16-19 of 2004 Permit. Therefore, the final permit does not include a specific requirement for these programs; rather, they are included by reference and required to be continued under the final permit. In any event, the Final Permit mentions illegal dumping in Section 4.9.1.2 (a) (“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: . . . 4. A household hazardous waste educational and outreach program to control illicit discharges to the MS4 as required herein”). With regard to litter reduction, the Final Permit at Section 4.7 (Illicit Discharge and Improper Disposal) includes numerous provisions that allow for the reduction of litter. Moreover, the SWMP Plan (see Section 3 of the Final Permit) encompasses both litter reduction and illegal dumping, as well as implicitly encourages public participation with the publication of each of its plans. Thus, EPA does not agree that litter reduction needs to be specifically mentioned in Section 4.9.1. Also, as noted in response to the previous comment, Section 4.10.1 of the Final Permit requires that the District attain the Trash TMDL WLA through a combination of approaches.

- f. The Commenter indicates that there are no specific details regarding public participation requirements in Section 4.9.4.

EPA Response: The Final Permit contains a number of specific requirements related to public participation, including Section 4.9.4. As noted above in paragraph b and incorporated here, both Sections 2.3 and 4.9.4 of the Permit include robust public participation requirements. EPA encourages the commenter to comment on the District’s SWMP, including comments regarding public involvement processes, when those programs are being developed and/or updated during the Permit term.

- g. The Commenter recommends amending language in Section 8.1 (WQS and TMDL WLA Implementation Plans and Compliance Monitoring) to make the following statement: “Currently, TMDLs are under development for the Potomac River and a Trash TMDL for the Anacostia River (Refer to Potomac Watershed Trash Summit for a “Trash Free Potomac by 2013” and Potomac Watershed Trash Treaty, executed in 2005).”

EPA Response: The Anacostia Trash TMDL was approved on September 21, 2010 (available at:

http://ddoe.dc.gov/ddoe/frames.asp?doc=/ddoe/lib/ddoe/services/pdf/Final_Anacostia_Trash_TMDL.pdf), and the Final Permit contains applicable provisions for implementation. With respect to any TMDLs that may be under development, the Final Permit makes allowances for potentially reopening the Permit to address those WLAs (see Section 8.19); this is discussed further in today's Fact Sheet.

2. Anacostia Watershed Citizens Advisory Committee, Mike R. Smith (June 4, 2010).

- a. The Commenter indicates that the Permit should specify that any time the District Department of Transportation (DDOT) increases the impervious area of a street, it should provide an equal offset in infiltration capacity or detention capacity such that there is no net increase in peak storm flows to the waters of the District. The Commenter recommends that this requirement be above and beyond any already required installation of "water quality catch basins," and that all trees destroyed during sidewalk construction be replaced in a manner that compensates for the fact that the destroyed trees will most likely be mature trees.

EPA Response: As with all District departments and agencies, DDOT will be required to comply with all relevant aspects of the Final Permit, including the post-construction retention performance standards for non-federal facilities (Section 4.3.7) for development projects. This requirement should address the issue raised by the Commenter related to the expansion of impervious street areas. Further, as to tree destruction, the Final Permit ensures sufficient tree canopy by requiring that the District develop a tree canopy strategy, including a requirement that the District plant 4,150 trees annually, which "shall be calculated as a net increase, such that annual mortality is also included in the estimate." See Final Permit at Section 4.1.6.2.

- b. The Commenter states that the Permit should ensure that any best management practices (BMPs) to be installed as a requirement of the Permit are constructed such that they will also remove trash. The Commenter recommends that the BMPs would include buoyant materials, high density materials, and neutrally buoyant materials, and that the District of Columbia Department of the Environment (DDOE) BMP manual be upgraded to ensure that all recommended BMPs will remove trash.

EPA Response: The Final Permit requires that the District implement a program to further reduce floatables using source controls and, where necessary, structural controls. Section 4.7.2. Further, the Final Permit requires that within the first 18 months following Permit issuance, the District must finalize a Stormwater Management Guidebook which will specify the District's objectives and specifications for integration of stormwater management technologies. Section 4.2.3. EPA encourages the Commenter to participate in the development of the SWMP, including the portions dealing with illicit discharges and improper disposal, and in the development process for the guidebook.

Finally, the Permit requires specific quantities of trash removal, see Section 4.10.1 (Anacostia River Watershed Trash TMDL Implementation). With regard to Storm Drain System Operation and Management and Solids and Floatables Reduction, the Final Permit requires the Permittee to "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.” Section 4.3.5.4.

- c. The Commenter states that the Permit should include a schedule by which trash-free stream miles will be achieved.

EPA Response: The Final Permit requires the Permittee to achieve the Trash TMDL WLA by the fifth year of the Permit. *See* Section 4.10.1. In addition, the Permittee requires that “[a]t 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 calculation methodology must be consistent with assumptions for weights and other characteristics of trash, as described in the 2010 Anacostia Trash TMDL.” The Commenter is further referred to the development documents for the Anacostia Trash TMDL. *See* <http://www.epa.gov/reg3wapd/pdf/AnacostiaTMDLPortfolio.pdf>.

- d. The Commenter indicates that many of the catch basins become filled with trash very quickly (and others are less heavily loaded), and that one annual cleaning is insufficient for optimal pollution control. Further, the Commenter states that the District Water and Area Sewer Authority (WASA) should be required to perform a study of the optimum frequency of cleaning catch basins.

EPA Response: To the extent that the comment refers to WASA (now known as DC Water), EPA understands the comment to concern the Permittee – the District of Columbia. (DC Water is an independent District agency, which as a Stormwater Agency (Section 2.3.1) carries out portions of the permit requirements).

In response to the comment, the Final Permit (Section 3 [SWMP], Table 1 [Elements Requiring EPA Review and Approval] and Section 4.3.5 [Storm Drain System Operation and Management and Solids and Floatables Reduction]) include provisions which require the District (as Permittee) to conduct a study to develop an effective catch basin inspection, cleaning, and repair schedule within eighteen (18) months of Permit issuance. Until the catch basin maintenance study has been completed and approved, the Permittee must continue to ensure that each catch basin within the DC MS4 Permit Area is cleaned at least once annually during the life of the Permit. Section 4.3.5.2. Further, the Permittee is required to continue to use strategies for coordinated catch basin cleaning and street-sweeping that will optimize reduction of stormwater pollutants. *Id.*

- e. The Commenter notes that EPA has approved TMDLs for over 20 pollutants for the Anacostia River, and that conventional street sweepers do not collect very much of the pollutants from the streets and most of the streets are seldom swept. The Commenter recommends that DPW should be required to convert to high-efficiency street sweepers for the MS4 areas draining to the Anacostia River, and that existing street sweepers can be used for the combined sewer overflow (CSO) areas and other drainages.

EPA Response: The District has completed two studies regarding street sweeping, which are currently under review by DPW. One purpose of the studies was to assess the performance of existing street sweeping equipment and the necessity for utilizing alternative street sweeping technologies. EPA expects that the District's street sweeping schedule will be modified to reflect the results of these studies.

Meanwhile, EPA notes that the Final Permit contains a schedule for street sweeping, including the newly-added requirement of twice monthly sweeping from March through October for environmental hot spots in the Anacostia River Watershed. (Section 4.3.6, Table 3).

- f. The Commenter believes that WASA should be required to prioritize the 2006 survey of outfalls and submit for approval a schedule for repairing the damaged outfalls and eliminating the violations of load allocations.

EPA Response: Initially, EPA notes that the Permittee is the District, and not WASA, and that it is more likely that DDOE would be performing the activities that it recommends. *See* Section 2.3.1 of Final 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. . .").

Second, EPA agrees that establishing priorities for outfall repair is important and has added Section 4.3.5.3 to the Final Permit:

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.

- g. The Commenter notes that there are a significant number of roads and streets that end in "T"s at the boundary of parklands, and suggests that the District be required to perform a survey of such intersections and identify those with erosion problems that cause water quality degradation.

EPA Response: Section 4.3.6.2 of the Final Permit (Streets, Alleys and Roadways) provides: "Standard road repair practices shall include limiting the amount of soil disturbance to the immediate area under repair. Stormwater conveyances which are denuded should be resodded or reseeded and mulched for rapid revegetation, and these areas should have effective erosion control until stabilized." Failure to comply with this provision would constitute a Permit violation.

3. Anacostia Watershed Society (form letters), May – June, 2010.

During May and June 2010, EPA received approximately 50 comment letters from private individuals who appear to be connected with the Anacostia Watershed Society. The letters appear generally identical to one another, and begin by providing support for two categories of requirements contained in the Draft Permit -- specific numbers of green infrastructure projects, and green infrastructure requirements for new development and redevelopment projects. The Commenters also make the comments discussed below.

- a. The Commenters request pollution cleanup plans for the Anacostia, Rock Creek and Potomac. (The commenters do not indicate whether they are referring to plans for the rivers or watersheds).

EPA Response: The Final Permit includes pollution cleanup plans for all three receiving streams covered by the Permit: for example, Section 4.10 of the Final Permit includes specific requirements for attainment of TMDL WLAs which are to be included in the overall SWMP. In addition to specific requirements for implementation of Anacostia Trash and Hickey Run TMDLs (Sections 4.10.1 and 4.10.2, respectively), this section includes a requirement for a Consolidated TMDL Implementation Plan (Section 4.10.3), which specifies:

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.

As indicated, the above language requires the District to public-notice TMDL Implementation Plans; the Commenters are encouraged to comment on any such draft documents.

- b. The Commenters request “[c]ompliance with existing legal water quality standards.”

EPA response: The Final Permit does require standards attainment, but acknowledges that attainment may not occur in its entirety during this permit term. Section 1.4.1 of the Final Permit provides that the Permittee must “[e]ffectively prohibit pollutants in stormwater discharges or other unauthorized discharges into the MS4 System as necessary to comply with existing District of Columbia Water Quality standards (DCWQS).” This section also states that “[c]ompliance 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.”

The Final Permit contains a number of provisions that generally, and specifically, target attainment of water quality standards. Among the general requirements, Section 2.1.1 of the Permit requires the Permittee “shall use its existing legal authority to control discharges to and from the [MS4] in order to prevent or reduce the discharge of pollutants to achieve water quality objectives.” Moreover, Section 8.4 (Duty to Mitigate) provides that “[i]n 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. . . .” Specifically, the Final Permit requires attainment of wasteload allocations in TMDLs applicable to the District’s MS4 discharges. See Section 4.10 of the Final Permit. And Section 8.19 of the Permit allows it to be reopened for a

number of reasons, including, *inter alia*, “[t]o 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.”

Also, Section 1.4 of today’s Fact Sheet contains additional discussion of these requirements: “EPA made the following modification [to the Final Permit]: ‘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’ (*emphasis added*) (Section 1.4 of the Final Permit). Additionally, Section 4.10 of Today’s Fact Sheet explains, “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.”

- c. The Commenters request specific pollution reduction requirements and timelines for completion.

EPA Response: EPA has included specific pollution reduction requirements and timelines for completion in the Permit. See additional explanations in the Fact Sheet at Section 3 (SWMP Plan) for specific information. The strategies adopted by the District to address relevant pollutants will be included in updated SWMP plans (see section 3 of the Final Permit), and EPA encourages the Commenters to participate in the review and comment process during these updates.

- d. The Commenters seek improved public participation, including public review and comment for draft plans, with responses from the District Government and EPA.

EPA Response: EPA agrees that public input to the District’s plans for meeting its permit obligations is important. Thus, the Final Permit contains robust opportunities for public participation. For example, Section 2.3.2 of the Final Permit (Stormwater Management Program Administration/Permittee Responsibilities, lists one of DDOE’s major responsibilities as “[m]aking available to the public and other interested and affected parties, the opportunity to comment on the MS4 stormwater management program.” Also, the Permit provisions for development of off-site mitigation/fee-in lieu, retrofit, tree canopy, and storm drain system operation and management/solids and floatables reduction programs also include such requirements. See Sections 4.1.3, 4.1.6, 4.1.7, and 4.3.5, respectively.

By way of additional examples of public notification requirements, the Final Permit increases public participation aspects of the Permit, in part by including TMDL WLA Implementation as part of the District’s overall Stormwater Management Plan (SWMP) (moved from Section 8.1 of Draft Permit, [“Other Applicable Provisions -- WQS and TMDL WLA Implementation Plans and Compliance Monitoring”] to Section 4.10 of Final Permit [“Total Maximum Daily Load (TMDL) Wasteload Allocation (WLA) Planning and Implementation”]). It also requires the Permittee to “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.” (Section 4.9.4.3 of Final Permit). See also Sections 4.9.4.1 (requirement to create opportunities

for the public to participate in the decision making processes involving the implementation and update of the Permittee's SWMP); 4.9.4.2 (requirement to 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); 4.9.4.4 (requirement to continue to develop public educational and participation materials in cooperation and coordination with other agencies and organizations in the District); and 4.9.4.5 (requirement to periodically, and at least annually, update its website).

Further, at Section 3, the Final Permit requires that “[a] current plan shall be posted on the District’s website at an easily accessible location at all times” and also that “[n]o 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.”

4. Bekele, Jerusalem (May 28, 2010).

This Commenter submitted the following documents: Cover E-Mail (June 4, 2010); proposed Permit Mark-Up; Table (with Issues, Current Language, Suggested Language, and Justification); and Write-Up (dated May 28, 2010). For efficiency, the comments are integrated with one another herein, and responded to as if they were one document.

- a. The Commenter requests that language be added to Sections 1.2 and 1.3.1 of the Permit which specifies that discharges from facilities covered by other NPDES Permits must also comply with the requirements of the District’s MS4 Permit. The Commenter indicates that this is necessary to relieve the District from liability should an industrial discharger contribute flows to the MS4 which do not comply with the District’s Permit.

EPA Response: Pursuant to 40 C.F.R. § 122.26(b)(2), discharges of nonstormwater into an MS4 are allowed, provided they are authorized under a separate NPDES Permit. Those Permits include and apply the appropriate industry- and site-specific technology-based and water quality-based effluent limitations for the discharge from those facilities.

- b. The Commenter believes that the District should ask EPA to require and issue to all federal facilities in the District, whether they discharge to the MS4 or directly to a waterbody, their own individual NPDES Permits, similar to Delaware. She believes that this would avoid any existing (or perceived) federal exemption and assure that no pollutants from federal facilities enter the District’s MS4s and water bodies. The Commenter made several suggested edits throughout the Permit regarding this issue.

EPA Response: This comment is beyond the scope of this permit, which only covers stormwater discharges from the District’s MS4. EPA notes that federal facilities with regulated stormwater discharges (e.g. stormwater associated with industrial activity or construction activity stormwater discharges) are subject to stormwater permitting requirements, whether discharging to the District’s MS4 or directly to a waterbody.

- c. The Commenter states that Section 1.3.2 is “egregious” as it puts the federal NPDES Permit above all District laws, regulations, and ordinances.

EPA Response: EPA disagrees with this comment. The language of Section 1.3.2 (Waivers and Exemptions) provides that unauthorized discharges “may constitute a violation of this Permit.” Moreover, an NPDES Permit, issued pursuant to the Federal Clean Water Act and applicable Federal regulations, is the control mechanism for the protection of water quality standards in the U.S. and as such is the predominant authority on those actions which impact receiving water.

- d. The Commenter requests that Section 2.1 be deleted from the Permit due to the fact that the District described its legal authority in its application; therefore it does not need to be in the Permit.

EPA Response: The Final Permit (Section 2.1.1 – Legal Authority) requires the District to both have adequate legal authority to control discharges *and* to remedy any deficiencies in such legal authority. This language is necessary to ensure that any insufficient legal authority is addressed by the Permittee. Also, to the extent that the Permittee updates its SWMP, *see* Section 3 (Stormwater Management Program 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.”), concomitant changes may need to be made to the legal authority.

- e. The Commenter suggests deleting Sections 2.3.1 and 2.3.2 (Stormwater Management Program Administration/Permittee Responsibilities) and instead including such provisions in the “document required under the proposed language” [Note to Reader: Document assumed to be the SWMP document]. The Commenter reasons that Federal regulations only specify in general terms (1) the signatories to Permit applications and reports, and (2) the elements for stormwater management programs, and that Permit language going beyond the regulations prevents the District from any flexibility of running its stormwater programs in an effective manner.

EPA Response: EPA contends that it is appropriate to identify the responsible stormwater agencies designated in the District’s Comprehensive Stormwater Management Enhancement Amendment Act of 2008 in the Permit. *See* 56 D.C. Reg. 1353 (February 13, 2009). This will ensure that EPA and the public will be notified of any changes to the parties responsible for SWMP implementation and compliance.

- f. With respect to additional pollutant sources (Section 3.1 of Draft Permit and 4.11 of Final Permit), the Commenter suggests striking the following provision: “For the Stormwater Model, analysis of data for these pollution sources shall be reported according to Part 7 herein.” She does not explain her rationale but rather indicates that it is “self-explanatory.”

EPA Response: EPA does not understand the basis of this request, and does not believe that it is appropriate to speculate. Moreover, EPA continues to believe that the language is appropriate and so has included it in the Final Permit.

- g. The Commenter requests that the District not be required to provide the name, address, and description of products of facilities which drain to outfalls as it is not a federal requirement and the effort would be “massive” and “not a wise idea.”

EPA Response: The Permit requirement cited by the Commenter is in fact consistent with the applicable federal regulations. Pursuant to 40 C.F.R. § 122.26(d)(2)(ii), MS4s are required, for source identification, to “provide an inventory, organized by watershed of the name and address, and a description (such as SIC codes) which best reflects the principal products or services provided by each facility which may discharge, to the municipal separate storm sewer, stormwater associated with industrial activity.” Because this information changes over time, it must be kept current, and the Final Permit reflects this need. The regulations also require that the District develop a SWMP “to monitor and control pollutants in stormwater discharges to municipal systems from municipal landfills, hazardous waste treatment, disposal and recovery facilities, industrial facilities that are subject to section 313 of title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA), and *industrial facilities that the municipal Permit applicant determines are contributing a substantial pollutant loading to the municipal storm sewer system* [emphasis added].” 40 C.F.R. § 122.26(d)(2)(iv)(C). In order for the District to determine which facilities may be contributing a substantial pollutant load to the MS4, the baseline information required in Section 4.7 (previously Section 3.2) is needed for each contributing facility. Finally, the regulations further require that the District develop a program to detect and remove sources of illicit discharges and this facility inventory will provided useful information when implementing this requirement. 40 C.F.R. § 122.26(d)(2)(iv)(B).

- h. The Commenter suggests deleting Section 3.3 because Section 3 deals with identifying sources, and not with addressing them. In addition, the Commenter contends that the content of the paragraph is “fundamentally flawed”. She argues that since the Permit language provides for “controls [to] be designed to prevent and restrict pollutants from coming into contact with stormwater,” EPA is imposing controls on the internal waste stream, as opposed to the discharge of pollutants from a point source into waters of the United States.

EPA Response: First, EPA notes that it has moved the relevant provision from Section 3.3 of the Permit (Source Identification) to Section 4.11 (Additional Pollutant Sources), to more accurately reflect the purpose of this requirement. Second, the requirement to prevent and restrict pollutants from coming into contact with stormwater is a means of controlling the discharge of pollutants from a point source (MS4) into a water of the United States (receiving streams covered by the DC MS4 Permit).

- i. The Commenter suggests deleting language that appeared at Section 4 of the Draft Permit, which indicated, *inter alia*, that “[t]he set of BMPs specified in the Permit can be adapted as opportunities change, as long as interim compliance deadlines for WLAs are achieved.” The Commenter notes that the language is “not clear” and that she did not see

what BMPs were specified in the Permit nor understand by what is meant “interim compliance deadline.”

EPA Response: EPA has removed the relevant language from the Final Permit since the language was unnecessary. At the same time, though, EPA notes that the Permit does specify many BMPs, including green roofs, tree canopies, and LID practices and non-structural management practices. With regard to an interim compliance deadline, each WLA has a compliance deadline attached to it, and interim compliance deadlines are set up as steps during the middle of the compliance deadline towards achieving full compliance by the WLA deadline. Such steps, or interim compliance deadlines, allow the Permittee to evaluate whether or not it is on track to meet the final compliance deadline. If the Permittee is on track, nothing needs to be changed. If the Permittee is not on track, however, interim compliance deadlines make it more likely that it will be able to figure out what is not working in a timely fashion. Interim deadlines also allow the Permittee flexibility to change what needs to be fixed in order for it to get back on track to be able to achieve full compliance by the deadline.

- j. The Commenter states that "green technology" (GT) is an excellent environmental tool that needs to be promoted and has tremendous value in the areas of air quality, energy savings, and water saving. She also indicates, however, that the utility of GT in reducing pollutants from stormwater discharges (the object of the MS4 Permit) is indirect and is limited to increasing public awareness and public behavior modification at best. She also suggests that it is in District's interest to promote GT for its own reasons and it is not appropriate for EPA to include it in the MS4 Permit unless it has supported evidence (quantified) of stormwater impairment mitigated by specific technology.

EPA Response: As discussed in detail in today's Fact Sheet, EPA agrees with the Commenter that “green technology” practices are excellent tools for controlling stormwater discharges. However, EPA disagrees with the Commenter's point that the value of such practices is indirect and limited to increasing public awareness. Rather, the requirements are “designed to increase the effectiveness of stormwater controls.” Fact Sheet at Section 4.1 (Standards for Long-Term Stormwater Management). A number of studies¹ note the water quality benefits of using the technological approaches stipulated in the Permit. EPA believes that it is appropriate to stipulate numeric pollutant objectives in a Permit when that is the most effective way to achieve environmental goals.

With respect to performance standards for new and redevelopment and for retrofits, consistent with the report by the National Research Council, *Urban Stormwater in the United States* (2009), and other stormwater research,² EPA has chosen to use flow volume as a proxy for pollutants.

¹ 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>

² These documents include, among many others: Stratus Consulting, *A Triple Bottom Line Assessment of Traditional and Green Infrastructure Options for Controlling CSO Events in Philadelphia's Watersheds* (August 24, 2009) (available at: http://www.epa.gov/npdes/pubs/gi_phil_bottomline.pdf); LimnoTech, Inc., *Analysis of the Pollution Reduction Potential of DC Stormwater Standard* (July 24, 2009); Natural Resources Defense Council and Waterkeeper Alliance, *Economic Costs, Benefits and Achievability of Stormwater Regulations for Construction and Development Activities* (2008); Meliora Environmental Design LLC, *Comparison of Environmental Site Design for Stormwater Management for Three Redevelopment Sites in Maryland* (2008); Riverkeeper, *Sustainable Raindrops:*

Managing stormwater in this way controls the large suite of pollutants found in urban stormwater, results in more implementation measures that are preventive rather than end-of-pipe, and also simultaneously begins to address issues of watershed hydrology.

Further, EPA refers the Commenter to the plethora of publications documenting costs *and benefits* of stormwater retention (or green infrastructure) approaches.³ In particular, EPA emphasizes that these approaches provide greater enhanced water quality benefits that more traditional approaches typically do not, and that are necessary to meet the water quality objectives of the Clean Water Act.

- k. The Commenter suggests deleting the following paragraph from Section 4.1 of the Draft Permit: “In accordance with Section 6.2 herein, the first Consolidated Annual Report submitted within this Permit term shall establish a baseline for the following: (1) percentage of impervious cover within the District; and (2) number and square footage of green roofs as defined herein within the District. In subsequent Consolidated Annual Reports, report on the percentage of decreased impervious cover and increased number and square footage of green roofs and other practices that infiltrate, evapotranspire and harvest stormwater within the District.” In support of her suggestion, the Commenter claims that the “information is available.”

EPA Response: EPA does not agree with the Commenter’s stated basis that the information is otherwise available, and thus declines to make the change. However, EPA also notes that it has moved the above language from section 4.1 of the Draft Permit to section 6.2.1, to a requirement of the Annual Report. Moreover, the information addressed by the Commenter will only be available to EPA (and the public) if the District is required to share such information publicly, and the Annual Reports are an appropriate mechanism for this data.

- l. The Commenter states that section 4.1.1.b “is equivalent to EPA granting a waiver to federal facilities.”

EPA Response: In the Draft Permit, the Permittee would have been required to apply a different stormwater retention standard for federal facilities’ development projects. In the Final Permit, the District is required to implement one performance standard for development projects.. See today’s Fact Sheet for a discussion of the standard. Neither the Draft nor the Final Permit includes a “waiver” to federal facilities as suggested by the Commenter.

Cleaning New York Harbor by Greening the Urban Landscape (2008) (available at: <http://www.riverkeeper.org/wp-content/uploads/2009/06/Sustainable-Raindrops-Report-1-8-08.pdf>); City of Portland, Oregon, *Cost-Benefit Evaluation of Ecoroofs* (Nov. 2008) (<http://www.portlandonline.com/bes/index.cfm?a=261053&c=50818>); EPA, *Reducing Stormwater Costs through Low Impact Development Strategies and Practices* (Dec. 2007) (available at: <http://www.epa.gov/owow/NPS/lid/costs07/>); *Supplementary Investigation of the Feasibility and Benefits of Low-Impact Site Development Practices for the San Francisco Bay Area* (2007); Richard R. Horner, *Initial Investigation of the Feasibility and Benefits of Low-Impact Site Development Practices for the San Francisco Bay Area* (2007); and Natural Resources Defense Council, *Rooftops to Rivers: Green Strategies for Controlling Stormwater and Combined Sewer Overflows* (June 2006) (available at: <http://www.nrdc.org/water/pollution/rooftops/rooftops.pdf>).

³ See footnote 2, *supra*.

- m. The Commenter suggests that the off-site mitigation program should be open to any project that causes or contributes to an exceedance of an TMDL WLA or WQS and cannot be prevented or that would be made worse by infiltration or retention controls.

EPA Response: This comment is beyond the scope of the permit. Rather it concerns the scope of the off-site mitigation program that the District will need to implement under the Permit. The Final Permit does not place any *a priori* limits on the off-site mitigation program to any subset of projects.

- n. The Commenter states that the planning, design, and construction of any one capital improvement plan (CIP) project extends well beyond the term of the Permit. Therefore, the Commenter suggests that the Permit should not require implementation of any retrofit project or specific square footage for retrofits. Instead, the Commenter suggests that the language specify that the District will conduct retrofit projects in areas where excessive bacteria, nitrogen, phosphorus, total suspended solids, cadmium, copper, lead, zinc, and trash will occur.

EPA Response: The Agency is tasked with providing “clear and measurable” provisions in Permits. *See e.g., EPA, Urban Stormwater Approach for the Mid-Atlantic Region and the Chesapeake Bay Watershed* (July 2010) (available at: http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/MS4GuideR3final07_29_10.pdf). Thus, EPA used best professional judgment to provide the District with a goal which it believes, through past performance as shown by Annual Reports, the District is capable of meeting within this Permit term. On that basis, EPA believes that the performance standard for retrofits (18,000,000 square feet over five years, for example) is feasible and appropriate.

- o. The Commenter suggests deleting Section 4.1.3. because the pollutant to be removed by tree canopy is not clear.

EPA Response: The tree canopy requirement (now at Section 4.1.6) is included to reduce the volume and velocity of stormwater discharged through the MS4, in addition to reducing pollutant loads. If stormwater is intercepted by tree canopy and infiltrated by tree roots, it can avoid picking up pollutants from impervious surfaces (e.g. roads and sidewalks) and discharging these pollutants into the MS4 and surface waters.⁴ Furthermore, tree cover helps intercept rainwater as it falls to the Earth, thus reducing the amount and speed of stormwater, along with filtering pollutants that eventually flow to receiving waters. *See* Section 4.1.6 of today’s Fact Sheet for further discussion of the benefits of tree canopy, as well as references cited therein.

- p. The Commenter suggests deleting Section 4.1.4. because she believes the benefit of green roof technology is limited to reduction of atmospheric deposition and it is not clear as to what pollutant measured in DC stormwater EPA believes would be removed by green roofs.

⁴ 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>). See specifically section 4.8 of this report.

EPA Response: EPA disagrees with the Commenter and has declined to make the change to Section 4.1.7 of the Permit (formerly Section 4.1.4). The green roof requirement in the Final Permit is expected to result in benefits that extend far beyond the reduction of atmospheric deposition; rather, such roofs actually reduce stormwater flows -- thereby reducing pollutant loading to the MS4. See Section 4.1.7 of today's Fact Sheet for literature sources supporting this requirement, including an EPA study which found that green roofs are capable of removing 50- percent of the annual rainfall volume from a roof through retention and evapotranspiration.

- q. The Commenter suggests deleting Section 4.2 of the Draft Permit (Operation and Maintenance of Stormwater Capture Practices) because she believes that if EPA requires any stormwater pollution mitigation measures in areas demonstrated to have stormwater quality impact, EPA should require that all entities (including the District, federal, and private sources) believed to be a potential source of the pollutant(s) in stormwater to take specific steps aimed at reducing/eliminating the pollutant(s).

EPA Response: Today's Fact Sheet (Section 4.2) clearly explains the importance of operation and maintenance activities for the continued performance of stormwater control measures. Given the critical nature of these activities, EPA has declined to delete the language requested by the Commenter.

- r. The Commenter suggests removing the following language from Section 4.2.3.a of the Draft Permit: "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: [objectives A through K]." The Commenter suggests the following language: "The Stormwater Management Guidebook shall provide information on green technology that [is] available for application for stormwater quality control in the District. The Guidebook shall be updated as information becomes available." The Commenter believes the District's hydrology is too unique to have general site specifications for land use planners and developers to use, and that it is extensive and the liability is too high. In addition, she believes that if such specifications are developed, it will have a negative impact on the District.

EPA Response: EPA disagrees with the Commenter and has declined to make the change. EPA contends that the purpose of having a Stormwater Management Guidebook is to have a starting point for all land use planners and developers to use when engaging in new and redevelopment. A good example is the State of Maryland's Stormwater Design Manual, which is required for use in every MD MS4 Permit as part of their new and redevelopment section of their Permits. MD is a large state in comparison to the District, thus, if an entire state can manage all of the challenges of stormwater design into one handbook, the District is expected to be able to complete one as well. For more information, EPA refers the Commenter to a document by the Maryland Department of the Environment, *Maryland Stormwater Design Manual, Vols. I & II* (effective October 2000; Revisions effective May 2009) (available at: http://www.mde.state.md.us/programs/Water/StormwaterManagementProgram/MarylandStormwaterDesignManual/Pages/programs/waterprograms/sedimentandstormwater/stormwater_design/index.aspx).

- s. The Commenter suggests replacing the language in Sections 4.3 – 4.9 with the language in the current 2004 MS4 Permit. All the proposed management components, if applicable, should be required of not only "District Government areas", but across the MS4 area (including the District, private, and federal areas). Further, the Commenter states that if EPA has specific activities that it recommends the District carry out, EPA may identify the water quality impairment(s) – demonstrated by District stormwater quality analysis – and include those activities that will result in quantifiable reduction of that particular pollutant. Short of identified stormwater quality problems, the MS4 Permit should include all management requirements in general terms to allow the District flexibility to employ appropriate and applicable stormwater quality control measures as the impairments/suspect sources are discovered.

EPA Response: A SWMP is intended to be a dynamic program which changes over time in response to determinations of effectiveness, new information, and changing conditions within the permitted area. The SWMP requirements in the Final Permit (Sections 4.3 – 4.9) reflect EPA's intention to update the SWMP accordingly. Further, the requirements are intended to apply throughout the MS4 area including District, private, and federal lands.

- t. The Commenter suggests deleting Section 5.1.1 (Revised monitoring). The Commenter is not clear what EPA's rationale is for the selection of parameters in Table 3. She further suggests removing the three objectives from section 5.1 of the Draft Permit and instead revising the section as follows: "Within one year of the effective date of this Permit the Permittee shall develop, public notice and submit to EPA Region III for approval a revised monitoring plan to meet ~~the following objectives~~ discharge requirements for stormwater."

EPA Response: EPA declines to make the requested change. The Agency is tasked with providing "clear and measurable" provisions in Permits. See e.g., EPA, *Urban Stormwater Approach for the Mid-Atlantic Region and the Chesapeake Bay Watershed* (July 2010) (available at: http://www.epa.gov/reg3wapd/pdf/pdf_chesbay/MS4GuideR3final07_29_10.pdf). Simply stating that the revised monitoring plan is to "meet discharge requirements for stormwater," as recommended by the Commenter, is not adequate to ensure that the Permittee meet the stated objectives, nor does it spell out in clear and measurable provisions what exactly the District needs to do. It does not make clear what the discharge requirements for stormwater are, nor does it give an objective goal to reach in order to meet such discharge requirements.

EPA also notes that it has substantially changed the relevant portion of the Permit since the draft; since the Agency issued the District its first MS4 Permit in 2000, the District has monitored approximately 130 pollutants annually in three rotating watersheds (Anacostia River, Rock Creek, and Potomac River) at approximately 20 stations. This monitoring is conducted to determine the pollutants of concern in the District's discharge. Table 3 lists those pollutants. Given the extent of monitoring that has occurred over the last decade, EPA has now determined that the following parameters are the remaining ones that require ongoing monitoring: E. Coli, total nitrogen, total phosphorus, total suspended solids, cadmium, copper, lead, zinc, and trash.

See Final Permit at Section 5.1.1 (Design of the Revised Monitoring Program); Fact Sheet at Section 5.1.

- u. The Commenter suggests deleting Section 5.1.2, indicating that it is a federal requirement under Section 106 of the CWA to prepare and submit a water quality report to the EPA. To evaluate the in-stream water quality involves substantial activities beyond evaluation of stormwater sources. It involves determinations on various sources other than stormwater, such as upstream sources, legacy contamination (ground water and sediment contaminations), and discharges from other than stormwater sources. The District water quality program that implements the evaluation of the health of the receiving waters is currently in part funded by the EPA. The Commenter believes that the activity should not be a requirement under the NPDES MS4 Permit, and that by making it an MS4 requirement, District taxpayers will have to absorb all the CWA section 106 function costs.

EPA Response: The monitoring station locations for characterizing pollutants of concern in MS4 discharges are separate from the monitoring and analysis performed for the CWA Section 305(b) Report at the CWA Section 106 monitoring stations. The locations of the MS4 monitoring sites are designed to identify pollutants of concern, possible sources of contaminants, and to assess the SWMP, rather than provide an assessment of in-stream overall water quality.

- v. The Commenter suggests deleting the phrase “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:” (p. 27). The Commenter contends that the stormwater quality is not sufficient to determine the "health of the receiving waters." The health of the receiving waters is determined by the amount of pollutants from upstream sources, sediment contamination (legacy), and other discharges.

EPA Response: EPA agrees that stormwater quality is not sufficient to determine the health of receiving waters, and thus has required the District to develop a revised monitoring program, of which one objective is to implement strategies that will adequately evaluate health of the receiving waters. See Section 5.1.2 of Final Permit.

The comments below were included in the attachment to the Commenter’s proposed mark-up of the Permit:

- w. The Commenter contends that: (1) the level of reduction achieved through LID is insignificant, and (2) volume reduction is not a stormwater quality issue in the District and should not be an NPDES requirement. The Commenter provides analysis to show that increased flow conditions due to the MS4 area draining directly to the Anacostia River, Potomac River, and Rock Creek, do not contribute to the degradation caused by scouring (i.e. due to increased volume and velocity) in these waterbodies. The Commenter goes on to cite a study conducted by WASA in the Palisades Neighborhood in which low impact development (LID) achieves two percent stormwater reduction, so the Commenter concludes that even if the LID can function as a system that will achieve mitigation of pollutants carried by stormwater, the reduction will be insignificant.

EPA Response: EPA disagrees, and also wants to clarify that the general term LID means many different things, and that the design of stormwater controls, not their labels, determines how effectively they will control stormwater discharges. If a control (even if it falls under the heading of LID) is only designed to achieve a 2% reduction, then that is all it will achieve. Therefore EPA has stipulated a performance standard in this Permit.

With respect to performance standards for new and redevelopment and for retrofits, consistent with the report from the National Research Council, *Urban Stormwater Management in the United States* (2009), and other stormwater research, EPA has chosen to use flow volume as a proxy for pollutants. Managing stormwater in this way controls the large suite of pollutants found in urban stormwater, results in more implementation measures that are preventive rather than end-of-pipe, and also simultaneously begins to address issues of watershed hydrology.

Further, EPA refers the Commenter to the plethora of publications documenting costs *and benefits* of stormwater retention (or green infrastructure) approaches.⁵ In particular EPA emphasizes that these approaches provide greater enhanced water quality benefits that more traditional approaches typically do not, and that are necessary to meet the water quality objectives of the Clean Water Act.

5. Casey Trees, Mark Buscaino (May 13, 2010).

- a. The Commenter applauds the inclusion of several tree canopy provisions in the Draft Permit, but indicates a concern that some items have not been completed, including: draft strategy for DC to achieve optimal tree canopy; development and implementation of schedule to achieve tree canopy goal; plan for achieving tree canopy goal; and annual documentation of tree survival rate together with stormwater capture estimates.

EPA Response: EPA first notes that the potential failure by a Permittee to comply with a Permit is a compliance issue and not part of the Permit reissuance. In any event, DC has already made significant progress toward developing its tree canopy strategy; DOE reported to EPA (in a recent regular update on the Letter Agreement) that it has in fact finalized the draft strategy as of June 2010, and that it is awaiting comments from stakeholders such as the Commenter and the DC Urban Forestry Administration prior to finalizing the document. EPA encourages the Commenter to provide input on the draft strategy. Further, the Final Permit requires that the Permittee develop a tree canopy strategy no later than one year following issuance of this Permit. See Section 4.1.6.

- b. The Commenter believes that off-site mitigation for post-construction impacts should occur within the same subwatershed (10-digit HUC) as the impact.

EPA Response: EPA believes that a requirement for off-site mitigation to occur in the same subwatershed as the impact could constrain the program, since the District is located in a highly-urbanized setting in a relatively small geographic area. In any event, the Final Permit includes a

⁵ See documents cited in fn. 1 herein, *supra*.

requirement that the District public notice any mitigation or fee-in-lieu program (or both). If the District chooses to develop such a program, EPA encourages the Commenter to participate in the program development process and raise any concerns about the geographical scope of mitigation at that time.

- c. The Commenter suggests an apparent contradiction between inclusion of provisions from the 2008 Letter Agreement between EPA and DC, and the Draft Permit requirement to expand tree canopy within one year of Permit issuance. The Commenter also requests that the Permit include the Mayor's goal to have 40 percent tree canopy by 2035.

EPA Response: The Final Permit requires that the District “[a]chieve a minimum annual tree planting rate of at least 4,150 plantings annually within the DC MS4 Permit Area. This total shall be calculated as a net increase, such that annual mortality is also included in the estimate. 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 within the District.” See Section 4.1.6.2. EPA can only issue Permits that do not exceed a five-year term, 40 C.F.R. § 122.46(a), and so cannot in this Permit require the District to achieve a goal by 2035. Section 4.1.6.3 of the Final Permit requires the Permittee to “annually document the total trees planted and make an annual estimate of the volume of stormwater that is being removed from the MS4” and “[a]lso report annually on the status of achieving 40% canopy District-wide.”

- d. The Commenter notes that the Urban Forestry Administration (UFA) planting standards cited in the Draft Permit is not an active, accurate link.

EPA Response: EPA appreciates the comment, and has revised the Final Permit to require trees to be planted in accordance with the Planting Specifications issued by the International Society of Arboriculture as appropriate to the site conditions. Final Permit at Section 4.1.6.2.

- e. The Commenter believes that it is inappropriate to use a street tree planting standard as the legally required standard for the MS4 Permit as many trees hopefully will be planted in other settings. The Commenter instead recommends that the Permit specify that plantings occur in accordance with the Planting Specifications issued by the International Society of Arboriculture appropriate to the site conditions.

EPA Response: Section 4.1.6.2 of the Final Permit requires that “[t]rees shall be planted in accordance with the Planting Specifications issued by the International Society of Arboriculture as appropriate to the site conditions.”

- f. The Commenter applauds the inclusion of the performance standard requiring annual documentation of 4,150 total trees planted in the MS4 portion of the District, but at the same time desires a reference to a minimum District-wide planting of 8,600 trees.

EPA Response: The MS4 Permit Area covered by this Permit is limited to areas drained by municipal separate storm sewers. See Section 1.1 of the Final Permit. Therefore, it would be outside the scope of the Permit to require District-wide tree planting, as substantial portions of the District are not covered by the MS4 Permit.

- g. The Commenter indicates that there is no evidence of compliance with the performance standard of 4,150 annual tree plantings, which was required by the previous Permit. The Commenter also recommends that the Permit require the Permittee to report on the number and size of trees removed from the MS4 Permit Area, to assess total net change.

EPA Response: First, any actual or hypothetical failures by a Permittee to comply with a Permit are potential compliance issues and not part of the Permit reissuance. Regarding the Commenter's second point, the Permit does require that the Permittee report the number of trees planted as a *net* increase, "such that annual mortality is also included in the estimate." See Section 4.1.6.2.

6. Chesapeake Bay Foundation, Lee Epstein (June 4, 2010) and William C. Baker (June 9, 2011)⁶.

- a. The Commenter indicates that Section 3.3 (Source Identification) should include a full suite of controls with deadlines for implementing them, and that the current provision needs more elaboration and emphasis.

EPA Response: Section 5.4 of the Final Permit (entitled "Area and/or Source Identification Program") 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." As discussed in greater detail in the Fact Sheet, EPA has determined that the District's ongoing practice is sufficient to ensure that the District has and will address additional pollutant sources as required to minimize and prevent discharges. The strategies adopted by the District to address these pollutants will be included in updated SWMPs, *see* Final Permit at Section 3 ("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."), and EPA encourages the Commenter to participate in the review and comment process during these updates (*See* Sections 3 (SWMP) and 4.9.4 (Public Involvement and Participation) of the Final Permit).

- b. The Commenter agrees with the performance standards for development contained in the Draft Permit, but suggests that the Permit characterize the kinds of practices that are preferred in order to meet these standards. Specifically, the Commenter believes that "softer" BMPs which mimic pre-development hydrology are preferred to meet the retention performance standards.

EPA Response: The Final Permit establishes a performance standard for stormwater controls that the District must apply to all development (Section 4.1.1) (*i.e.*, requirement for implementation of an enforceable mechanism that will adopt and implement the on-site retention of 1.2" volume of stormwater from a 24- hour storm with a 72-hour antecedent dry period

⁶ EPA considers the June 9, 2011 letter submitted by the Chesapeake Bay Foundation to be a late comment on the draft permit. While the Agency has no legal obligation to consider comments received after the close of the comment period, we are choosing to consider these comments at this time.

through evapotranspiration, infiltration and/or stormwater harvesting and use). As discussed in Section 4.1 of today's Fact Sheet, EPA determined that the Final Permit should include one performance standard for post-construction stormwater discharges. Because there are many ways that the performance EPA prefers to allow the District to provide whatever guidance it deems necessary to ensure that the performance standard is met and MS4 discharges will be in compliance with Final Permit.

- c. The Commenter agrees that the Permit should include off-site mitigation and fee-in-lieu options, but argues that they should only be allowed if the developer clearly demonstrates what the obstacles to installing appropriate BMPs are. Further, the Commenter states that economic obstacles should not be considered unless stormwater management costs are shown to exceed 10 percent of total project costs.

EPA Response: EPA believes that off-site mitigation is a feasible alternative when off-site locations have adequate capacity. The Final Permit (Section 4.1.3, Off-Site Mitigation and/or Fee-in Lieu for all Facilities) requires that the District public-notice any off-site mitigation and/or fee-in-lieu programs. EPA encourages the Commenter to participate in this process and make his points at that time. The Permit also requires that the Permittee submit the program to EPA for review and comment.

In addition to the foregoing safeguards, EPA notes that the Permit expands the minimum requirements for an off-site mitigation and/or fee-in-lieu program by requiring, among other things, that the program include at a minimum: (1) Establishment of baseline requirements for on-site retention and for mitigation projects; (2) Specific criteria for determining when compliance with the baseline requirement for on-site retention cannot technically be met based on physical site constraints; (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; and (4) The necessary tracking and accounting systems to implement this section, including that original and off-site practices stay in place and are adequately maintained. Section 4.1.3 of Final Permit.

Finally, EPA believes that the transaction costs associated with off-site mitigation and/or fee-in-lieu payments will serve as a sufficient deterrent against developers pursuing these options as a first course.

- d. The Commenter indicates agreement with the notion that some adjustment to retention standards might be warranted in certain environmentally-beneficial circumstances, but only so long as developers are required to quantify the water quality benefits of the projects they propose. Specifically, the Commenter believes that the Permit should require that mitigation occur in the same watershed as the project; include a ratio of required off-site mitigation (2:1 recommended by Commenter); include a mitigation "floor" of 0.9 inches; that "other environmental benefits" should be well-defined to include the required desirable development types (*e.g.*, transit-oriented development (TOD), walkable, well-located, etc.); require the developer to provide a description of the specific environmental benefits; and finally, the mitigation should be as "certain and enforceable" as possible.

EPA Response: As noted in response to the previous Comment, the Final Permit requires the District to develop 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). EPA believes that the District is in the best position to develop these criteria.

As to the Commenter's suggestion that such mitigation activities should occur in the same watershed as the project, EPA notes that the entire District MS4 Area, which is relatively small, ultimately drains to the Potomac River watershed. Water quality benefits are expected to accrue, and EPA does not feel it is necessary to further break down watershed areas for this purpose.

e. The Commenter states that the Permit should include a performance standard "floor" of 0.9 inches water retention for the effective management of stormwater during retrofitting, prior to allowing in-lieu or mitigation and require the retrofit of 18-percent of the MS4's impervious area over five Permit cycles. The comment also mentions retrofit requirements in other jurisdictions outside the District of Columbia.

EPA Response: EPA has determined that the better approach is to allow the District to determine the appropriate requirements for retrofits in the course of developing its retrofit program, while also requiring opportunity for public comment and EPA review and approval. Today's Final Permit is the first of the District's MS4 permits to contain requirements with respect to retrofits for existing discharges. As explained in today's Fact Sheet (Section 4.1.5), EPA expects the District to utilize this permit term to develop design, construction and operation and maintenance protocols to meet the requisite performance standards for retrofits.

Several modifications were made to this provision: Specifically, the Final Permit requires that the District: (1) develop, public notice and submit to EPA for review and approval a program that establishes performance metrics for retrofit projects within two years of Permit effective date; (2) target federal land holders in order to document federal commitments to retrofitting their properties; (3) estimate potential pollutant load and volume reductions achieved through the DC Retrofit program by major water body (Rock Creek, Potomac River, and Anacostia River) for identified parameters; and (4) implement retrofits for stormwater discharges from 18,000,000 square feet of impervious surfaces during the Permit term (with a minimum of 1,500,000 square feet in transportation rights-of-way). *See* Section 4.1.5 of Final Permit ("Retrofit Program for Existing Discharges"). EPA encourages the Commenter to provide comment on the District's SWMP regarding retention standards when they are being developed during the Permit term.

To the extent that the Commenter refers to the retrofit requirements in another jurisdiction, the goal of this Permit is to achieve high-quality retrofits rather than simply to reach a high volume of retrofits.

f. The Commenter states that tree canopy, green roofs, and District-owned property rehabilitation are useful both for what they can individually achieve by way of water quality improvements over time, and as on-going examples for the private sector and the federal government.

EPA Response: EPA appreciates the comment, and agrees that such activities are useful for environmental protection and improvement.

- g. The Commenter recommends that construction requirements in the Permit be strengthened because of the need to protect the Chesapeake Bay, which is downstream from the District's discharges. Specifically, the Commenter requests that the Permit include the following: (1) a trigger for applicability of the construction requirements of 10,000 square feet rather than one acre (*i.e.*, 43,560 square feet); (2) required site stabilization within 72 hours of work ceasing (or temporarily ceasing); and (3) a requirement that no more than five acres be actively graded ("opened") at any one time on a construction project.

EPA Response: EPA believes that the requirements for development projects in today's Final Permit are sufficiently protective of the receiving streams, as explained further in Section 4.1 of today's Fact Sheet. In response to the other suggestions in the Comment, EPA notes that: (1) As to the request that the Permit use a numeric "trigger" of 10,000 square feet for construction requirements, the Final Permit is actually more stringent in that it covers projects greater than or equal to 5,000 square feet; and (2) Existing requirements address both of these suggestions (*i.e.*, timing of site stabilization and grading limitations). See EPA's "NPDES General Permit for Stormwater Discharges From Construction Activities," 73 Fed. Reg. 40338 (July 14, 2008) ("CGP") (available at: http://www.epa.gov/npdes/pubs/cgp2008_finalPermit.pdf), which applies to permitted construction projects within the District, as well as the Construction and Development Effluent Limitations Guidelines, 40 C.F.R. Part 450. EPA is currently working on a draft rule to replace the CGP, and encourages the Commenter to provide input on the draft rule when it is public-noticed.

As an additional response to this comment, EPA notes that the D.C. Watershed Implementation Plan, submitted as part of EPA's Chesapeake Bay TMDL (available at: http://ddoe.dc.gov/ddoe/frames.asp?doc=/ddoe/lib/ddoe/tmdl/Final_District_of_Columbia_WIP_Bay_TMDL.pdf), outlines the District's construction program (and includes numbers on compliance inspections and enforcement).

- h. The Commenter notes that the Permit includes outreach and education/communication minimum performance measures, but states that these measures are too general and need to be accompanied by measurable metrics. Further, the Commenter believes that District's SWMP should include extensive public outreach and involvement.

EPA Response: The Final Permit contains a number of requirements and performance metrics related to public participation. Section 4.9 (Public Education and Participation) contains subsections entitled: Education and Outreach (4.9.1) (requirement to assess current education and outreach efforts and identify areas where additional outreach and education are needed); Measurement of Impacts (4.9.2) (requirement to measure the understanding and adoption of selected targeted behaviors among the targeted audiences); Recordkeeping (4.9.3) (requirement to track and maintain records of public education and outreach activities); and Public Involvement and Participation (4.9.4) (requirement to include opportunities for public involvement).

These requirements strike a balance between the need for public participation in various District stormwater activities while still affording the District some flexibility in designing the program – as long as it addresses the audiences and subject areas identified in the Permit. EPA encourages the Commenter to participate in the development and implementation of the public education portion of the SWMP as provided in Section 4.9.4.

- i. The Commenter believes that Section 8 of the Draft Permit (Other Applicable Provisions) is extremely unclear, incomplete, and quite poorly organized, and argues that the District MS4 Permit should be consistent with the developing Chesapeake Bay TMDL. Specifically, the Commenter argues that the DC MS4 Permit should incorporate all TMDL WLAs entirely by reference and should be clear that the WLAs are in fact numeric effluent limitations; the Permit should make clear TMDL Implementation Plan updates must be submitted and that all TMDLs approved in the future are incorporated into the Permit; the Permit should expressly state that the WLAs must be achieved; and finally, the Permit must specifically describe under what circumstances management practices can be used to express WLAs.

EPA Response: EPA agrees that this section of the proposed Permit was poorly organized, and has reorganized accordingly. The previous Section 8, “Other Applicable Provisions,” included requirements related to water quality standards and TMDL WLA Implementation Plans as well as a section on compliance monitoring with WQBELs. Section 4 of the Final Permit, “Implementation of Stormwater Control Measures,” now includes a separate section entitled Total Maximum Daily Load (TMDL) Wasteload Allocation (WLA) Planning and Implementation (Section 4.10), which has the following subsections: Anacostia River Trash TMDL (Section 4.10.1)⁷; Hickey Run (4.10.2); and Consolidated TMDL Implementation Plan (4.10.3).

EPA has further reorganized the Permit by taking a number of provisions from TMDL implementation plans, and—rather than requiring a new or updated plan—placed specific implementation measures into the Final Permit in order to make them more directly understandable and enforceable.

Finally, as to the Commenter’s point that the DC MS4 Permit should be consistent with the Chesapeake Bay TMDL, EPA notes that the Final Permit does in fact incorporate certain underlying requirements of the Bay TMDL -- including necessary reductions of nitrogen, phosphorus and sediment from the District of Columbia (as well as other Bay jurisdictions). When achieved, these reductions will allow the Bay to attain its applicable water quality standards. As background to these anticipated reductions, EPA notes that as part of the Bay TMDL development process, each Bay jurisdiction developed a Watershed Implementation Plan (WIP) to identify how it intends to meet the reductions called for in the TMDL. Section 7.2 of the District’s Final Phase I WIP, *Chesapeake Bay TMDL Watershed Implementation Plan District of Columbia Department of the Environment* (November 29, 2010) (available at:

⁷ EPA has directly incorporated implementation requirements for the newly-approved Anacostia Trash TMDL (September 21, 2010) at Section 4.10.1 of the Final Permit, and subjected the one element requiring some planning effort (trash reduction calculation methodology) to public notice and comment and to EPA approval.

http://ddoe.dc.gov/ddoe/frames.asp?doc=/ddoe/lib/ddoe/tmdl/Final_District_of_Columbia_WIP_Bay_TMDL.pdf), indicates that it relied in part on the draft MS4 Permit as a guide in development of this document. The WIP specifically anticipates reductions of nitrogen, phosphorus, and sediment contributions to the Bay by 11, 27, and 26 percent, respectively, by relying on the following District commitments:

- Install at least 350,000 sq ft of green roofs over the Permit cycle on District property
- Plant at least 4,150 trees annually with a goal of planting and maintaining 13,500 additional trees by 2014 and increasing its tree canopy from 35% to 40% by 2035
- Insure that all development greater than 5,000 sq ft retain stormwater generated from a 1.2” 24-hour storm
- Promotion of low-impact development

Currently, the District and other Bay jurisdictions are working on their Phase II WIPs. EPA notes that the Final Permit includes a reopener clause (Section 8.19) that allows it to be reopened for a number of reasons, including, *inter alia*, “[t]o 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.”

- j. In a June 9, 2011 letter that supplements its initial comments on the draft Permit, the Commenter indicates support for the proposed dual retention standard, *i.e.*, on-site stormwater retention standard of 1.7” from a 24-hour storm for federal development projects, or 0.5” higher than non-federal development projects.

EPA Response: EPA agrees with the Commenter’s points that there are several authorities which provide robust justification for federal agencies to implement the 1.7” on-site retention standard for development projects. These authorities include: Executive Orders 13508 and 13514, along with subsequently promulgated strategies and guidance documents; Part 438 of the Energy Independence and Security Act and subsequent guidance; as well as waste load allocations associated with the Chesapeake Bay TMDL. *See* today’s Fact Sheet for a discussion of the basis for imposing the 1.2” on-site retention standard on all development projects in the Final Permit. EPA continues to engage with other federal agencies to ensure the achievement federal water quality obligations. At this juncture, federal agencies are considering a voluntary agreement approach to achieve the goals associated with increased stormwater retention.

7. CONTECH® Stormwater Solutions, Dionne Driscoll (June 2, 2010).

- a. The Commenter indicates that the Draft Permit relies almost completely on two unit processes to mitigate stormwater impacts (*i.e.*, infiltration and/or on-site stormwater retention/reuse), and that it uses a fairly prescriptive approach in doing so. The Commenter also claims that by mandating the use of a specific BMP rather than focusing on the goal, the water quality of the region may actually suffer from the strict implementation of the prescriptive directives in the Permit. Moreover, the Commenter notes the potential for site-specific limitations which may impede the performance of infiltration, and states that the Draft Permit does not appear to include an allowance for

BMP alternatives to green technologies required by the Permit. The Commenter is concerned that this apparent limitation will curtail the stormwater treatment options available to engineers and developers in the District and does not provide any enhanced assurance that stormwater quality will be improved. In some (potentially many) cases this may limit better site design practices in favor of the fee-in-lieu of treatment.

EPA Response: EPA contends that, for the most part, the Final Permit does not require that any specific management practices or controls be implemented. The Final Permit, appropriately, expresses performance standards or other environmental objectives, but the Permittee may implement any combination of controls that will meet those objectives. As to the point about curtailed treatment options, the Final Permit (Section 4.1.3) requires the District to 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 cannot meet stormwater management performance standards.

Finally, with regard to the Commenter's expressed concern that green roofs may result in increased nitrogen discharges, it is true that the outflow from green roofs may have more nitrogen and phosphorus in it than rainfall, depending on the composition of the soil media and/or establishment of media to the roof structure. Typically, though, limiting organics in the media does reduce effluent nitrogen and phosphorus levels. EPA, *Green Roofs for Stormwater Runoff Control*, Pub. No. EPA/600/R-09/026 (February 2009) (available at: <http://www.epa.gov/nrmrl/pubs/600r09026/600r09026.pdf>); North Carolina Cooperative Extension Service, *Urban Waterways: Permeable Pavements, Green Roofs and Cisterns. Stormwater Treatment Practices for Low-Impact Development* (May 2006) (available at: <http://www.bae.ncsu.edu/stormwater/PublicationFiles/BMPs4LID.pdf>).

- b. The Commenter believes that the Permit should include formal guidance for both the treatment criteria for specific usages of harvested waters (*e.g.*, landscaping, toilet flushing and other interior uses) and overflow control/release requirements for these systems.

EPA Response: This type of guidance is outside of the scope of this Permit. At the same time, EPA notes that there is nothing in the Final Permit prohibiting the District from establishing the authority and implementation guidelines for use of harvested rainwater and overflow controls thereof if it deems that to be necessary.

- c. The Commenter indicates that there appear to be no numeric values for pollutant removal goals in the Permit, and that this greatly limits the District's authority and ability to evaluate BMP pollutant removal performance. Further, the Commenter suggests that omitting numeric values for target pollutants limits the District's authority to properly manage the impacts of future development, especially in "hot spot" areas (*e.g.*, gas stations) with concentrated pollution which it claims should be treated rather than infiltrated. The Commenter also states that the proposed limit of 10% discharge of stormwater allowed to leave the site according to the Permit may result in untreated discharges.

EPA Response: The decision as to whether individual limits are numeric or narrative is fact-specific, and a broad statement as to one type of being more protective than the other would be

over-generalizing. In the Final Permit, for example, EPA has included specific numeric limits that are consistent with the Anacostia Trash TMDL. Similarly, the Final Permit contains specific numeric objectives for items like retrofit drainage areas, tree plantings, square footage of green roofs, *see* Sections 4.1.5, 4.1.6 and 4.1.7, respectively. However, for other pollutant reduction measures, narrative provisions EPA has determined that it is more effective to include narrative requirements to achieve environmental goals such as for practices like landscape and recreational facilities management and pesticide, herbicide, fertilizer, and landscape irrigation, *See* Section 4.3.4 of the Final Permit.

With respect to the Commenter's final point above, she appears to be referring to the 1.2" capture requirement contained in the Draft Permit, which according to the draft Fact Sheet represents a 90th-percentile capture. EPA notes that for performance standards for development, EPA has chosen to use flow volume as a proxy for pollutants. This is consistent with the report from the National Research Council, *Urban Stormwater Management in the United States* (2009), and other stormwater research. Managing stormwater in this way controls the large suite of pollutants found in urban stormwater, results in more implementation measures that are preventive rather than end-of-pipe, and simultaneously begins to address issues of watershed hydrology. *See generally id.*

- d. The Commenter believes that the fee-in-lieu program contemplated by the Permit will be a "pay to pollute" program, which could result in avoided stormwater controls that fall outside of the realm of green technologies where permitted for use. To approve such BMPs, the Commenter also encourages the adoption of a formalized approval protocol such as those utilized by the Washington Department of Ecology and the New Jersey Department of Environmental Protection.

EPA Response: EPA believes that off-site mitigation is a feasible alternative when off-site locations have adequate capacity. The Final Permit (Section 4.1.3, Off-Site Mitigation and/or Fee-in Lieu for all Facilities) requires that the District public-notice any off-site mitigation and/or fee-in-lieu programs. EPA encourages the Commenter to participate in this process and make her points at that time. The Permit also requires that the Permittee submit the program to EPA for review and comment.

In addition to the foregoing safeguards, EPA notes that the Permit expands the minimum requirements for an off-site mitigation and/or fee-in-lieu program by requiring, among other things, that the program include: (1) Establishment of baseline requirements for on-site retention and for mitigation projects; (2) Specific criteria for determining when compliance with the baseline requirement for on-site retention cannot technically be met based on physical site constraints; (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; and (4) The necessary tracking and accounting systems to implement this section, including that original and off-site practices stay in place and are adequately maintained. Section 4.1.3 of Final Permit.

Finally, EPA believes that the transaction costs associated with off-site mitigation and/or fee-in-lieu payments will serve as a sufficient deterrent against developers pursuing these options as a first course.

- e. The Commenter concedes that green technologies are a useful tool in stormwater management, but also states that they are not a “silver bullet” and the District should not be limited to only green technologies for the management of stormwater quality and quantity concerns. The Commenter also mentions that maintenance concerns and costs exist for green technologies as well as for more traditional controls.

Further, EPA refers the Commenter to the plethora of publications documenting costs *and benefits* of stormwater retention (or green infrastructure) approaches.⁸ In particular EPA emphasizes that these approaches provide greater enhanced water quality benefits that more traditional approaches typically do not, and that are necessary to meet the water quality objectives of the Clean Water Act.

- f. The Commenter suggests that green technologies are not well-suited for all target pollutants, and that the Permit should include an allowance for using the most appropriate stormwater control measures for a site even if they fall outside the realm of green technologies. Any limitation of the most appropriate control limits the owner/developer’s ability to meet the MEP.

EPA Response: As explained in response to the previous comment, green technologies offer many benefits with regard to volume control. As a corollary, target pollutants are removed when volume is controlled.

- g. The Commenter applauds the inclusion of a retrofit program, but states that the goal of the Permit appears to be related to the amount of controls installed rather than focusing on a performance target, and that the Permit is prescriptive without a clear performance goal. She also states that retrofitting with green technologies may not be the most effective and appropriate solution for the targeted pollutants. The Commenter also refers to certain traditional control technologies that have been introduced in the last 15 years, such as hydrodynamic separators and catch basin inserts.

EPA Response: Because this comment overlaps with the other comments made by this Commenter, the response incorporates those responses above.

8. Council of the District of Columbia, Council Members (June 4, 2010).

- a. The Commenters recommend that the Permit identify co-Permittees in addition to the DDOE, such as the DDOT, as parties responsible for implementation.

EPA Response: The Permit specifically indicates that the Permittee is the Government of the District of Columbia, and specifically addresses individual agency responsibilities:

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

⁸ See documents cited in n. 1 herein, *supra*.

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.

See Final Permit at Section 2.3.1.

- b. The Commenters state that all outcomes and plans required by the Permit should be subject to robust public participation including public review and comment for draft plans.

EPA Response: The Final Permit contains robust opportunities for public participation. For example, Section 2.3 of the Final Permit (Stormwater Management Program Administration/Permittee Responsibilities, lists one of DDOE’s major responsibilities as “[m]aking available to the public and other interested and affected parties, the opportunity to comment on the MS4 stormwater management program.” Also, the Permit provisions for development of off-site mitigation/fee-in lieu, retrofit, tree canopy, and storm drain system operation and management/solids and floatables reduction programs also include such requirements. *See* Sections 4.1.3, 4.1.5, 4.1.6, and 4.3.5, respectively.

By way of additional examples of public notification requirements, the Final Permit increases public participation aspects of the Permit, in part by including TMDL WLA Implementation as part of the District’s overall Stormwater Management Plan (SWMP) (moved from Section 8.1 of Draft Permit, “Other Applicable Provisions -- WQS and TMDL WLA Implementation Plans and Compliance Monitoring”) to Section 4.10 of Final Permit (“Total Maximum Daily Load (TMDL) Wasteload Allocation (WLA) Planning and Implementation”). It also requires the Permittee to “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.” (Section 4.9.4.3 of Final Permit). *See also* Sections 4.9.4.1 (requirement to create opportunities for the public to participate in the decision making processes involving the implementation and

update of the Permittee's SWMP); 4.9.4.2 (requirement to 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); 4.9.4.4 (requirement to continue to develop public educational and participation materials in cooperation and coordination with other agencies and organizations in the District); and 4.9.4.5 (requirement to periodically, and at least annually, update its website).

Further, at Section 3, the Final Permit requires that “[a] current plan shall be posted on the District’s website at an easily accessible location at all times” and also that “[n]o 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.”

- c. The Commenter suggests that the Permit should commit the District to particularized, enforceable actions that are specific, objective, and observable. Currently, the Permit is vague, and, in parts, unenforceable.

EPA Response: EPA has stipulated numeric pollutant objectives in a Permit when that is the most effective way to achieve environmental goals. In the Final Permit, for example, EPA has included specific numeric limits that are consistent with the Anacostia Trash TMDL. . Similarly, the Final Permit contains specific numeric objectives for items like retrofit drainage areas, tree plantings, square footage of green roofs, *see* Sections 4.1.5, 4.1.6, and 4.1.7, respectively, and other measurable requirements, on the one hand, However, for some parameters, it is more effective to translate pollutant reduction objectives into more specific narrative provisions, such as specifying narrative requirements for practices like landscape and recreational facilities management and pesticide, herbicide, fertilizer, and landscape irrigation *See* Section 4.3.4 of the Permit.

- d. The Commenters are particularly concerned that the Draft Permit does not provide supporting data on the costs of implementing the requirements. They also note that the federal government might not pay the impervious area fee that is designed to support MS4-related activities; therefore, the burden on ratepayers is uncertain.

EPA Response: The NPDES regulations do not require economic analyses to be performed in connection with Permit issuance (as opposed to analyses required in the case of rulemakings, such as regulations). In any event, EPA refers the Commenter to the plethora of publications documenting costs *and benefits* of stormwater retention (or green infrastructure) approaches.⁹ In particular EPA emphasizes that these approaches provide greater enhanced water quality benefits that more traditional approaches typically do not, and that are necessary to meet the water quality objectives of the Clean Water Act.

⁹ *See* documents cited in fn. 1 herein, *supra*.

As to the Commenter's point that the federal government might not pay the impervious surface assessment, EPA notes first that the scope of this Permit is limited to imposing stormwater controls and effluent limitations on the District as Permittee (see Section 1 of Final Permit); as such, a requirement that a third party pay fees to the Permittee is outside the scope of this Permit. Be that as it may, EPA notes that Senate Bill 3481, which requires the federal government to comply with local stormwater fees that are used to treat and manage polluted stormwater runoff, passed the U.S. Senate and House by unanimous consent on Dec. 21 and Dec. 22, 2010, respectively, and was signed into law by President Obama on January 4, 2011. *A bill to amend the Federal Water Pollution Control Act to clarify Federal responsibility for stormwater pollution*, S. 3481, 111th Congress (2009 - 2010) (available at: <http://thomas.loc.gov/cgi-bin/bdquery/z?d111:S3481>). On March 14, 2011, the U.S. Government Accountability Office indicated its willingness to pay the fee in light of the recent legislation. See U.S. Government Accountability Office, *Letter re: Public Law 111-378 and Payment of the Stormwater Charge* (March 14, 2011).

9. Departments of the Navy, Army and Air Force, S.G. Womack [Navy] (May 27, 2010).

EPA notes that it met with Department of Defense (DOD) representatives since the close of the Comment period –on October 26, 2010 with DOD and the Navy General Counsel's Office, and on November 23, 2010 with representatives of the Navy Region Mid-Atlantic/DOD Regions 1&3. The purpose of the meetings was simply to discuss the Comment letter, and the parties did not raise new issues at those meetings.

The Commenter, S.G. Womack, indicates that he is the Department of Defense Regional Environmental Coordinator, and that his comments are on behalf of the Departments of Navy, Army, and Air Force. The Comment letter includes the following two enclosures: Memorandum for Acting Assistance Secretary of the Army, *et al.* from Dorothy Robyn, Deputy Undersecretary of Defense, re: DoD Implementation of Stormwater Requirements under Section 438 of the Energy Independence and Security Act (EISA) (Jan. 19, 2010); and Letter from Donald Schregardus, Deputy Assistant Secretary of the Navy, to Jonathan Angier, EPA, re: Stakeholder Input: Stormwater Management Including Discharges from New Development and Redevelopment (Feb. 24, 2010).

EPA acknowledges that it has recently received correspondence from DOD indicating that the Department supports the development of a Memorandum of Understanding with EPA memorializing certain voluntary stormwater management commitments, actions and performance criteria in DC.

- a. The Commenter notes that the Energy Independence Security Act of 2007 (EISA) and Clean Water Act (CWA) are two separate statutes and that the District's MS4 Permit is issued under the Clean Water Act. He states that the CWA therefore does not authorize the inclusion of EISA 438 standards in the District's MS4 Permit; rather, EISA § 438 was written to be self-executing by Federal Agencies in the management of stormwater from Federal development and redevelopment projects. The Commenter further suggests that

if EPA chooses to include EISA in the District's MS4 Permit, it would need to engage in rulemaking under the Administrative Procedure Act.

EPA Response: The Draft Permit was not purported to be an implementation of Section 438 of EISA, 42 U.S.C. § 17094. To the extent that the draft Fact Sheet may have implied that the Draft Permit was developed to implement that provision or to EPA Technical Guidance on implementing that provision, EPA is clarifying in the Final Fact Sheet that post-construction performance standards for development are permit terms pursuant to Section 402(p)(3) of the CWA. Nonetheless, EISA Section 438 and the Technical Guidance are relevant for establishing such performance standards for this permit under Section 402(p)(3)(B)(iii), and the permit requirements are *consistent with* EISA (*see* final Fact Sheet at Section 4.1).

- b. The Commenter indicates that the Draft Permit holds the federal government to a different standard than non-federal entities, and that it therefore runs afoul of section 313(a) of the Clean Water Act. The Commenter also suggests that the District will not be able to comply with the Permit because it cannot enforce the differential standards, and that Federal facilities are only subject to the CWA to the extent they are treated in non-discriminatory manner.

EPA Response: The Final Permit has been revised to require the same standard to be imposed on all discharges from developed sites of 5,000 square feet or larger within the DC MS4 Permit Area. See today's Fact Sheet for the rationale for this single standard.

- c. The Commenter states that the Draft Permit inappropriately incorporates portions of EPA's EISA § 438 Technical Guidance, which is not a legally binding document and should not be included in the Permit as such. He also notes that elements of the Technical Guidance should not be included in the Permit as mandatory requirements.

EPA Response: *See* Response to Comment 9a, *supra*, which is incorporated here.

- d. The Commenter argues that the Permit condition requiring Federal Facilities to mimic "meadow" hydrology as a post-development condition (when 95th percentile storm retention standard cannot be met) is inconsistent with the CWA, EISA § 438, and the EPA's Technical Guidance and will result in a mandatory retrofit of existing stormwater discharges following relatively minor construction projects (as small as 5,000 square feet).

EPA Response: The Final Permit does not include the draft provision that is the subject of this comment .

Also, because the standard only applies to new development and redevelopment, local implementation of the standard would not force or mandate retrofits..

- e. The Commenter argues that the Permit has eliminated the statutory provision that Federal facilities are to maintain predevelopment hydrology "to the maximum extent technically feasible." The Commenter suggests that the Draft Permit provision requiring the

management of stormwater based on predevelopment hydrology is an absolute requirement with the only alternative being to pay into an in-lieu-fee program or provide off-site mitigation. The Commenter does not believe that EPA has the authority to remove the feasibility allowance, nor does he believe that Federal facilities are authorized to pay into an in-lieu program. He also contends that off-site mitigation would be very problematic for Federal facilities due to constraints on land use.

EPA Response: As noted *supra*, the DC MS4 Permit does not incorporate the EISA standards but instead includes a performance standard to be implemented by the District. The performance standard is informed by the underlying technical record supporting EPA's EISA Technical Guidance, which is relevant to these stormwater discharges. Also, as noted previously, the Final Permit no longer includes the reference to modeling for pre-development hydrology. EPA notes that requirements that may be imposed by the District in implementing the Final permit are separate from, and in addition to, any requirements that may apply to the commenter under EISA § 438.

The Permit does not require any entity to perform off-site mitigation or pay into a fee-in-lieu program. Rather, the Permit requires the District to “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 cannot meet stormwater management performance standards. . . .” *See* Final Permit at Section 4.1.3.

The Commenter also includes comments on individual sections of the Draft Permit, as described below.

- f. With regard to section 1.2 of the Draft Permit, which addresses the Permit coverage area, the Commenter states that not all DOD facilities actually drain to the MS4, and that DOD will identify which facilities do and do not drain to the system.

EPA Response: Section 1.2 of the Final Permit states: “This Permit covers all areas within the corporate 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 (hereinafter, ‘MS4 Permit Area’).” Accordingly, development projects involving a DOD facility that are neither served by the system nor contribute to it are not required to be subject to the local control program specified in the Permit.

- g. With regard to legal authority (Section 2.1 of Draft Permit), the Commenter suggests that the District may be unable to obtain legal authority with respect to perceived “discriminatory” requirements of the Permit.

EPA Response: EPA responded to this point *supra* at Comment 9.b, and incorporates that response here.

- h. As to section 4.1.1 of the Draft Permit (Standards for New Development and Redevelopment), the Commenter argues that: (1) the District is unable to enforce a more stringent performance standard against federal facilities as opposed to non-federal; (2) the

alternative performance standard Permitting modeling of pre-development hydrology to include “meadow” is not an appropriate reference standard; (3) non-federal facilities are allowed adjustments to the performance standard if they can quantify an environmental benefit; it is unfair that federal facilities do not have this same ability; and (4) the Draft Permit is more stringent than the EPA EISA section 438 Technical Guidance because it requires off-site mitigation after retention, whereas the Guidance simply permits such mitigation.

EPA Response: EPA has responded to each of these points, *supra*, and incorporates the responses here. As to the argument that the District cannot enforce a more stringent performance standard against federal facilities, *see* Response 9.b. With regard to the Commenter’s concern about the alternative performance standard Permitting modeling of pre-development hydrology to include “meadow,” that comment is now moot. *See supra* at Comment Response 9.d. As to the suggestion that it is unfair for federal facilities not to be allowed adjustments to the performance standard if they can quantify an environmental benefit because non-federal facilities have this benefit, EPA has deleted the relevant paragraph in its entirety. Finally, with respect to the Commenter’s point that the Draft Permit is more stringent than the EPA EISA section 438 Technical Guidance because it requires off-site mitigation after retention, whereas the Guidance simply Permits such mitigation, EPA posits that the Commenter is incorrect. The Off-Site mitigation program addressed by the Permit, Section 4.1.3, nowhere requires retention prior to mitigation; in addition off-site mitigation is an optional alternative, not a requirement.

- i. The Commenter states that with regard to section 4.1.2 of the Draft Permit (Retrofit Program for Existing Discharges), DOD plans to implement urban retrofits outlined in the Guidance for Federal Land Management in the Chesapeake Bay Watershed as mandated by Executive Order 13508. The Commenter also argues that this section of the Draft Permit stipulates a retrofit program including a potential justification for a reduced standard applicable to only non-federal facilities. The Commenter believes that federal facilities should also be able to rely on this alternative performance standard for retrofits.

EPA Response: EPA appreciates knowing that DOD plans to implement urban retrofits, and believes that the retrofit requirements of the Final Permit are consistent with DOD’s plans. Those requirements include: (1) develop, public notice and submit to EPA for review and approval a program that establishes performance metrics for retrofit projects within two years of Permit effective date; (2) target federal land holders in order to document federal commitments to retrofitting their properties; (3) estimate potential pollutant load and volume reductions achieved through the DC Retrofit program by major water body (Rock Creek, Potomac River, and Anacostia River) for identified parameters; and (4) implement retrofits for stormwater discharges from 18,000,000 square feet of impervious surfaces during the Permit term (with a minimum of 1,500,000 square feet in transportation rights-of-way). *See* Section 4.1.5 of Final Permit (“Retrofit Program for Existing Discharges”). EPA encourages DOD to provide comment on the District’s SWMP regarding retention standards when they are being developed during the Permit term.

- j. With regard to tree canopy (Section 4.1.3 of the Draft Permit), the Commenter seeks to have the Permit clarify whether federal lands are included in the area subject to the

performance standard, and notes that DOD may be limited in its ability to satisfy the requirement.

EPA Response: The Final Permit includes as a performance standard that the District must “[a]chieve a minimum annual tree planting rate of at least 4,150 plantings annually within the District.” The Permit also requires the District to “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.” *See* Section 4.1.6 of Final Permit. While the Permit is silent as to whether trees will be planted on federal lands, the District will have to investigate appropriate locations for planting and would likely exclude those where the requirement cannot be satisfied or locations with low stormwater retention potential.

- k. As to Section 4.2 of the Draft Permit (Operation and Maintenance of Stormwater Capture Practices), the Commenter indicates that District development of accountability mechanisms to ensure maintenance of stormwater control measures on DOD properties will need to accommodate the unique aspects of Federal land, such as limitations on deed restrictions and security requirements.

EPA Response: The language of the Final Permit is broad enough to allow the District flexibility to adopt sufficient mechanisms for stormwater control measures that are appropriate to all property holders, including property holders with special access or security requirements like those of DOD.

- l. Moreover, the Commenter suggests that with respect to section 4.4 of the Draft Permit (Management Plan for Commercial and Institutional Areas), the District should not establish a duplicative reporting requirement or inspections for DOD facilities with separate NPDES stormwater Permits issued by EPA.

EPA Response: The District currently performs NPDES Permit compliance inspections for facilities, including federal entities, which have separate Permits issued by EPA as part of the Agency’s CWA Section 106 Program. DC also maintains an existing inventory of facilities, including federal facilities, which have Construction General Permit and Multi-Sector General Permit coverage issued through EPA Headquarters; these Permits enable such facilities to perform periodic compliance inspections.¹⁰ Section 4.4 of the Final Permit reinforces the District's commitment to continue to perform these activities and does not represent a duplication of effort.

- m. Finally, the Commenter requests clarification of Section 4.5 of the Draft Permit, Management Plan for Industrial Facilities and Spill Prevention. He notes that some industrial stormwater Permits issued to Federal facilities cover the entire facility, and

¹⁰ EPA’s “NPDES General Permit for Stormwater Discharges From Construction Activities,” 73 Fed. Reg. 40338 (July 14, 2008) is available at: http://www.epa.gov/npdes/pubs/cgp2008_finalpermit.pdf), and its “Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP),” 73 Fed. Reg. 56572 (Sept. 29, 2008), is available at: http://www.epa.gov/npdes/pubs/msgp2008_finalpermit.pdf.

suggests that the industrial Permits take precedence over the District's MS4 Permit in order to avoid implementation of duplicative requirements.

EPA Response: If a federal facility has either a separate individual NPDES Permit or coverage under an EPA general Permit, these Permits take precedence over the District's MS4 Permit.

10. District of Columbia Building Industry Association, Merrick Malone (June 4, 2010).

- a. The Commenter states as his primary concern that the feasibility and associated cost impacts of proposed stormwater retention standards will not have been adequately established prior to their implementation. Further, the Commenter suggests that EPA should conduct further analyses, including pilot programs, to identify current regulatory obstacles, best management practices, and associated costs.

EPA Response: Today's Fact Sheet contains a detailed discussion of the basis for the stormwater retention standards in the Final Permit. EPA also refers the Commenter to the plethora of publications documenting costs *and benefits* of stormwater retention (or green infrastructure) approaches.¹¹ In particular EPA emphasizes that these approaches provide greater enhanced water quality benefits that more traditional approaches typically do not, and that are necessary to meet the water quality objectives of the Clean Water Act.

- b. The Commenter suggests that EPA needs to acknowledge that public and private cooperation will be critical to achieving the reductions proposed in the Draft Permit. He also wants the Agency to identify financial and technical assistance, such as CWA Section 319 grants, that would be made available to the District given its unique characteristics. Likewise, the Commenter believes that EPA needs to acknowledge that the District may adopt sufficient regulatory flexibility in its new stormwater regulations to ensure that reduction goals can be achieved feasibly and cost-effectively, and that the proposed Permit as written does not incorporate or acknowledge any of these critical elements.

EPA Response: The Permittee is the District of Columbia, which is the only entity that can be required to undertake activities imposed by the Permit. However, the Final Permit does require that the District record information related to private landowners. *See e.g.*, Sections 4.1.7.3 (“[The Permittee must d]ocument 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. . . .”); 4.2.2 (“The District must continue to maintain an electronic inventory of practices on private property to include [operation and maintenance of stormwater capture practices]”).

As to identifying financial and technical assistance available to the District, that is also outside the scope of this Permit. However, “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

¹¹ *See* documents cited in n. 1 herein, *supra*.

other sources of funding and/or other programs where legal or contractual requirements preclude direct use for stormwater Permitting activities.” See Final Permit at Section 3.

With regard to regulatory flexibility, EPA does not oversee the promulgation of all District regulations. Instead, the Permit requires the Permittee to “use its existing legal authority to control discharges to and from the Municipal Separate Storm Sewer System (MS4) in order to prevent or reduce the discharge of pollutants to achieve water quality objectives.” Section 2.1.1. It also requires that the District update its stormwater regulations, so that they are “at least as protective of water quality as the federal Clean Water Act and its implementing regulations require,” Section 2.1.2, which is the legal standard that all states must meet in implementing regulations.

- c. The Commenter believes that "meadow" is an inappropriate standard upon which to base the pre-development condition, since the District has not had meadow-like conditions for hundreds of years.

EPA Response: The comment is now moot, as explained *supra* at Comment 9.d.

- d. The Commenter states that the proposed 90-95% retention standard required by the Permit is infeasible, imprudent, or both, as many sites in the City either contain “clayey” soils, which cannot retain significant volumes of stormwater, or contaminated soils, where it would be imprudent to require on-site retention and percolation.

EPA Response: EPA notes initially that the Final Permit imposes the same numeric retention standard on both federal and non-federal facilities, i.e., choice by the District of either *90th* percentile storm retention standard or modeling of pre-development hydrology. Moreover, compliance with the Final Permit is not precluded by the mentioned site restraints, and many of them can be successfully overcome. For example, clay soils can be amended or replaced. Infiltration can also be supplemented by practices that evapotranspire or harvest rainwater. At the same time, EPA agrees that there will be some sites where managing this volume of water will be infeasible, and has therefore provided provisions for the District to develop off-site mitigation and/or payment-in-lieu programs (Section 4.1.3).

- e. The Commenter argues that EPA’s Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP), 73 *Fed. Reg.* 56,572 (Sept. 29, 2008), is inappropriate for covering discharges of sump water or groundwater commingled with stormwater flows into the MS4, and that EPA needs to develop a more appropriate General Permit for these types of discharges.

EPA Response: Issues relating to the MSGP and development of a separate Permit for sump water or groundwater commingled with stormwater flows are outside the purview of the District’s MS4 Permit. However, the Commenter may wish to contact the relevant EPA office—Office of Water/Office of Wastewater Management (<http://water.epa.gov/aboutow/owm/aboutowm.cfm>) – to raise this concern.

- f. The Commenter states that the Draft Permit takes a "one size fits all" approach to stormwater regulation, and that this approach is uncommon among agencies and unworkable in practice. He also suggests that the Permit needs to promote a neighborhood-by-neighborhood or watershed-by-watershed approach.

EPA Response: EPA does not see the Federal role as prescribing practices at the micro-level; that is an activity that is more appropriate for the District to perform at its level. Accordingly, the Final Permit contains several performance metrics that call for the District to determine how they are to be best achieved.

- g. The Permit does not make it clear that the District of Columbia may use regulatory incentives to achieve its goals. At a minimum, the Permit should explicitly recognize the ability of the District to use trading programs to achieve its goals, and that off-site mitigation may be required due to the fact that the District is largely built out.

EPA Response: As to regulatory incentives, the Final Permit requires (Section 2.1.2) that the District update its stormwater regulations as necessary to address the control of stormwater through the DC MS4 Permit Area. The Permit does not preclude the District from developing regulatory incentives that it believes are appropriate. Specifically with regard to trading programs, the Final Permit requires the District to "develop, public notice, submit to EPA for review and comment, and implement an off-site mitigation and/or fee-in-lieu program to be utilized when projects cannot meet stormwater management standards because of significant site constraints limiting the implementation of the necessary controls. See Final Permit at Section 4.1.3.

- h. The Commenter states that developers should be given enough flexibility so that they are able to choose the green attributes that work best for their particular project. Stormwater retention should not be allowed to "trump" all other green attributes of a project.

EPA Response: The Final Permit strikes an appropriate balance between allowing the Permittee some flexibility to implement controls and measures (e.g., [1] for development projects, the Permit provides a choice between a numeric retention standard and designing to pre-development hydrology, Section 4.1.1; and [2] off-site mitigation and/or fee-in-lieu program, Section 4.1.3), but at the same time includes performance standards that ensure effective prohibition of pollutants from entering the MS4.

- i. The Commenter suggests that the federal government also needs to exercise leadership in the area of stormwater protection, in accordance with the Executive Order on Federal Leadership in Environmental, Energy, and Economic Performance, E.O. 13514, 74 Fed. Reg. 52,115 (October 5, 2009), and require the federal government to pay the District's impervious surface fee.

EPA Response: EPA is aware that the District relies on the impervious surface assessment as a basis for supporting its compliance with the Permit requirements. However, the scope of this Permit is limited to imposing stormwater controls and effluent limitations on the District as Permittee (see Section 1 of Final Permit); as such, a requirement that a third party pay fees to the

Permittee is outside the scope of this Permit. In any event, EPA notes that Senate Bill 3481, which requires the federal government to comply with local stormwater fees that are used to treat and manage polluted stormwater runoff, passed the U.S. Senate and House by unanimous consent on Dec. 21 and Dec. 22, 2010, respectively, and was signed into law by President Obama on January 4, 2011. *A bill to amend the Federal Water Pollution Control Act to clarify Federal responsibility for stormwater pollution*, S. 3481, 111th Congress (2009 - 2010) (available at: <http://thomas.loc.gov/cgi-bin/bdquery/z?d111:S3481>:). On March 14, 2011, the U.S. Government Accountability Office indicated its willingness to pay the fee in light of the recent legislation. See U.S. Government Accountability Office, *Letter re: Public Law 111-378 and Payment of the Stormwater Charge* (March 14, 2011).

- j. The Commenter believes that any regulatory costs (including environmental regulation) that encourage sprawl to occur in lower-cost areas undermine smart growth and transit-oriented development (TOD). The District needs statutes and regulations that encourage, not discourage, Smart Growth and TOD.

EPA Response: EPA is not aware of any data supporting the premise that stormwater regulations encourage sprawl; in fact, most available information demonstrates that the converse is usually true.

11. District Department of the Environment, Hamid Karimi (comment letter dated June 4, 2010; superseding Comment letter dated June 21, 2010; supplement to June 21, 2010 comments to include claimed new authority dated July 22, 2010; and second supplement to June 21, 2010 comments to include claimed new authority dated November 3, 2010).

The comments included in the June 4, 2010 letter were described as draft and interim. Comments submitted on June 21, 2010 indicated that they were formal and final, superseding and replacing the comments submitted on June 4, 2010. The Commenter also indicated that the Comments were being submitted on behalf of the Government of the District of Columbia. For this reason, EPA has only responded to the comments contained in the June 21, 2010 Comment letter.

DDOE also submitted two sets of supplemental comments to the June 21, 2010 letter – one on July 22, 2010 and the other on November 23, 2010.

The June 21, 2010 Comment letter includes a narrative summary of major issues and an attachment which provides additional comments and suggested language changes. EPA has taken each edit/comment under advisement; however, the Responsiveness Summary only includes the more substantive of the comments. For example, comments/edits intended merely to clarify existing language that do not change the intent of the language, have not been summarized here. Moreover, repetitive comments/edits made in these documents are not repeated; each unique comment/edit is addressed once.

EPA also notes that it did meet with DDOE representatives since the close of the Comment period – on September 23, 2010, October 20 and 22, 2010, and June 21, 2011.

The purpose of the meetings was to simply discuss the Comment letters and reissuance of the Permit, and DDOE did not raise new issues at those meetings.

- a. In the cover letter, the Commenter indicates that he objects to a requirement that the Permittee comply with WQS and TMDL WLAs (Sections 1.4, 4.1, 8, and 9.4 of the Draft Permit), and indicates that this requirement is at odds with language in the draft Fact Sheet acknowledging that WQS attainment is an incremental process. The Commenter also posits that compliance with WLAs should effectively constitute compliance with WQS; therefore, the Permit should not distinguish between these two standards. The Commenter also requests that all Permit conditions requiring it to meet numeric standards be changed to the requirement for BMPs.

EPA Response: EPA has included language in the Final Permit (Section 1.4) that “[c]ompliance 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.” This language is similar to the version in the Draft Permit, except that it adds the word “adequate” as a modifier to “progress toward compliance. . .”

- b. Also in the cover letter, the Commenter states that he is very concerned with inclusion of *any* numeric/performance standard for non-federal facilities, and he notes that MS4 Permits in neighboring Maryland and Virginia do not include numeric retention standards. He also suggests that the implementation of a stringent retention standard could greatly encourage sprawl by encouraging development outside of the District in suburban areas.

EPA Response: It is entirely appropriate for the Permit to include quantifiable and enforceable provisions such as performance standards. The Final Permit strikes an appropriate balance between allowing the Permittee some flexibility to implement controls and measures (*e.g.*, requirement for development and implementation of off-site mitigation and/or fee-in-lieu program, Section 4.1.3), while at the same time includes performance standards that ensure effective prohibition of pollutants from entering the MS4.

As to standards in neighboring states, EPA notes that Maryland regulations do include a similar numeric performance standard approach. *See* “Stormwater Management Act of 2007”, Md. Code Env’t. Article § 4-201 (April 24, 2007); Code of Maryland (COMAR) § 26.17.02.01-1 (which incorporates the Maryland Design Manual (Maryland Department of Environment, *Environmental Site Design (ESD) Process and Computations* (July 2010) (available at: <http://www.mde.state.md.us/programs/Water/StormwaterManagementProgram/Documents/www.mde.state.md.us/assets/document/ESD%20Process%20Computations%20Review.pdf>)). The Maryland Design Manual essentially requires developers to design for a “woods in good condition” reference condition for on-site stormwater retention. For purposes of quantity of stormwater managed on-site, the actual number will vary depending on soil type and percent imperviousness; generally, projects will have to manage on site anywhere from 1" to 2.6”.

The Virginia stormwater regulations currently in effect contain both performance-based and technology-based numeric criteria. *See* 4VAC Chapter 50 (available at:

http://www.dcr.virginia.gov/soil_and_water/documents/vaswmregs.pdf). Virginia also has new draft regulations with numeric performance based standards. *See* <http://www.dcr.virginia.gov/lr2d.shtml>.

Virginia has also indicated in its Chesapeake Bay TMDL Final Phase I Watershed Implementation Plan that it intends to impose more stringent requirements on new development and significant redevelopment within the Bay watershed. *See generally*, Commonwealth of Virginia, *Chesapeake Bay TMDL Phase I Watershed Implementation Plan: Revision of the Chesapeake Bay Nutrient and Sediment Reduction Tributary Strategy* (November 29, 2010) (available at: <http://www.deq.state.va.us/export/sites/default/tmdl/pdf/baywip/vatmdlwipphase1.pdf>).

- c. As to the specific 1.2” retention standard for non-federal facilities, the Commenter suggests that EPA has not demonstrated that such standard can be met—especially in a highly-urbanized setting. The Commenter also states that any bases cited for the retention standard are not comparisons to similarly-situated jurisdictions (e.g., they are for Phase II or construction general Permits, or for less densely-populated areas).

EPA Response: EPA first notes that the Final Permit requires the District to apply the same performance standard (“1.2” of stormwater from a 24- hour storm with a 72-hour antecedent dry period through evapotranspiration, infiltration and/or stormwater harvesting”) to *all* development projects greater than 5,000 square feet within the DC MS4 Permit Area – whether federal or non-federal. *See* Section 4.1.1 (Performance Standard for all Facilities). Second, EPA believes that it is in fact feasible for most development projects to meet that performance standard, *see* today’s Fact Sheet at Section 4.1. To the extent that an individual development project cannot meet that standard, EPA has authorized the District to develop an off-site mitigation and/or fee-in-lieu program for all facilities. Section 4.1.3.

- d. The Commenter objects to limitations on the types of projects that are eligible for adjustment from the performance standard, including transportation and Smart Growth.

EPA Response: The Final Permit provides the District with flexibility to determine an alternate performance standard for retrofit projects in the right-of-way: “Specific site conditions (as noted in 4.1.3.1) may constitute justifications for setting a performance standard at something less than the standards in 4.1.1, and a similar calculator or algorithm process may be used in conjunction with a specific site analysis.” Section 4.1.5.1. Moreover, the Final Permit has reduced the minimum square footage for transportation right-of-way retrofit projects by more than one-half -- from 3,600,000 square feet to 1,500,000 square feet. Section 4.1.5.4.

As to the District’s concern about the potential deterrence of Smart Growth projects, EPA is not aware of any data supporting the premise that stormwater regulations encourage sprawl; in fact, most available information demonstrates that the converse is usually true.

- e. The Commenter objects to the Permit's requirement that the District promulgate regulations that EPA is aware may be challenged by federal agencies (i.e. Government Accounting Office (GAO) and Department of Defense (DOD)).

EPA Response: The scope of this Permit is limited to imposing stormwater controls and effluent limitations on the District as Permittee (see Section 1 of Final Permit). In any event, EPA notes that Senate Bill 3481, which requires the federal government to comply with local stormwater fees that are used to treat and manage polluted stormwater runoff, passed the U.S. Senate and House by unanimous consent on Dec. 21 and Dec. 22, 2010, respectively, and was signed into law by President Obama on January 4, 2011. *A bill to amend the Federal Water Pollution Control Act to clarify Federal responsibility for stormwater pollution*, S. 3481, 111th Congress (2009 - 2010) (available at: <http://thomas.loc.gov/cgi-bin/bdquery/z?d111:S3481>:). On March 14, 2011, the U.S. Government Accountability Office indicated its willingness to pay the fee in light of the recent legislation. See U.S. Government Accountability Office, *Letter re: Public Law 111-378 and Payment of the Stormwater Charge* (March 14, 2011).

- f. The Commenter argues that the Draft Permit contains some language that could complicate its enforcement efforts, citing Section 3.3 (Addressing Potential Pollutant Sources) for emphasizing preventive measures rather than end-of-pipe measures.

EPA Response: EPA notes that the stormwater program has always emphasized pollution prevention measures because they generally tend to be more effective than end-of-pipe treatment measures. EPA does not understand the Commenter's contention that this would complicate enforcement.

NOTE: The following comments are contained in Attachment A to the District's comment letter:

- g. The Commenter recommends changing the language of Section 1.2 to indicate that *dechlorinated* water line flushing is authorized, since chlorinated water may cause fish kills and other adverse effects to aquatic life. Further, the Commenter suggests adding language to indicate that discharges which are managed to not *further* impair waterbodies (given the fact that DC waters are already impaired), and indicating that discharges that meet the CWA *to the MEP* are authorized by the Permit.

EPA Response: EPA has made the requested change to add that "dechlorinated" water line flushing is authorized. See Final Permit at Section 1.2.

As to the suggestion that the language be modified to reflect the fact that water bodies are already impaired, EPA first notes that the language in the Draft Permit is standard language in stormwater permits. Moreover, the requested language could inaccurately be read to suggest that discharges are permitted to the extent they do not cause or contribute *additional* impairments, which is not the case. Therefore, the Final Permit does not reflect the suggested language.

And with regard to including the reference to MEP, the Final Permit does not contain reference to that standard. Rather, the Fact Sheet supporting the Permit has been revised to more clearly demonstrate how the Permit requirements are expected to represent a reduction of pollutants to the MEP. Thus, EPA has also declined to make this change.

- h. The Commenter proposes changes to the language in Section 1.4 of the Draft Permit (Discharge Limitations) to indicate that the District is required to implement a SWMP

which meets the MEP standard rather than WQS. The Commenter also seeks to have the Permit revised to indicate that compliance with the Permit constitutes “overall compliance” compliance with WQS, as opposed to “progress toward compliance” as stated in the Draft Permit.

EPA Response: The Fact Sheet has been revised to more clearly demonstrate how the Permit requirements are expected to represent a reduction of pollutants to the MEP. EPA believes that the term “overall compliance” is vague, and does not add any clarity to the Permit. However, the Final Permit has been revised to state that “[c]ompliance 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.” Section 1.4 (emphasis added). This language is similar to the version in the Draft Permit, except that it adds the word “adequate” as a modifier to “progress toward compliance.”

- i. At Section 2.1.2 of the Draft Permit, the Commenter requests that the Permit allow 18 months to update stormwater regulations, and also seeks the following addition to language in the Draft Permit: “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.”

EPA Response: EPA has made the requested changes in the Final Permit.

- j. The Commenter recommends revising language in Section 2.1.3 to replace timing requirements for remedying deficiencies in legal authority with a provision that deficiencies in the legal authority shall be remedied “as soon as possible in accordance with the District’s legislative and regulatory process.” The Commenter expresses concern that the 120-day time limit for remedying this deficiency is not feasible for the Executive branch of the District, but notes that it is committed to working as quickly as possible to complete rulemaking revisions.

EPA Response: The Final Permit (Section 2.1.1) allows the District up to two years to remedy deficiencies that can only be addressed through legislative action. EPA contends that 120 days is adequate for deficiencies that must be addressed through regulation or Executive branch action.

- k. The Commenter requests the following revision to Section 2.1.4 of the Draft Permit: “The Permittee shall ensure that the above legal authority in no way restricts intent of this provision is not to prohibit the Permittee’s ability to enter into inter-jurisdictional agreements with other District agencies and/or other jurisdictions affected through this Permit.”

EPA Response: EPA has made the requested change (now at Section 2.1.3).

- l. The Commenter wants the provision requiring adequate fiscal resources (Section 2.2) to be based upon the fiscal adequacy analysis required in Section 6.2.1.

EPA Response: EPA has declined to make this change because the referenced Section (6.2.1) does not describe the requirements of the Permit; rather, it is a list of reporting requirements.

- m. At Section 3.3 of the Draft Permit (Addressing Potential Pollutant Sources), the Commenter recommends adding language to indicate that controls shall be implemented to the MEP standard, and also that they shall be designed to “minimize” pollutants (v. “prevent and restrict”). In support of these suggestions, the Commenter notes that the practices implemented to address the listed pollutants can, at best, minimize loadings but not actually restrict such pollutants. He also points out that several practices are already in place to collect and remove trash from receiving streams – presumably in support of the argument that any related Permit requirements would be duplicative of such ongoing practices.

EPA Response: EPA believes that the changes requested by DDOE would weaken the Permit. However, EPA has amended the Permit language as follows: “Controls shall be designed to prevent and restrict priority pollutants from coming into contact with stormwater. . .”. (This provision is now located at Section 4.11 [Additional Pollutant Sources]). This change more accurately reflects EPA’s expectation that the Permittee focus on a limited universe of pollutants.

As to the suggestion that the Permit require implementation of controls to the MEP, the Final Permit does not contain reference to that standard. Rather, the Fact Sheet supporting the Permit has been revised to more clearly demonstrate how the Permit requirements are expected to represent a reduction of pollutants to the MEP. Thus, EPA has declined to make this change.

Regarding the trash removal requirements specifically, EPA believes that prevention is possible in many cases and some solutions are preventative. However, understanding that the trash load will never be zero, the Permit also uses the term “restrict”. Also, the applicable WLA does allow for a certain trash pollutant load.

Finally, to the extent that the Permit requirements overlap with other authorities or activities already in place (including those required by the Anacostia River Trash TMDL), the Permittee is free to note that in deliverables for consideration by EPA as possible credit toward reductions. (The Permittee would still be responsible for complying with the deliverable requirements of the Final Permit).

- n. At Section 4 of the Draft Permit (Stormwater Management Plan) (Section 3 of Final Permit), the Commenter suggests revising language to clarify that the pollutant load will be reduced or eliminated to the MEP. The Commenter also recommends adding language to the Permit that would allow changes to BMPs to “maximize the use of resources or the advancement of technology.”

EPA Response: EPA Policy provides that “[i]f the state or EPA has established a TMDL for an impaired water that includes WLAs for stormwater discharges, Permits for either industrial stormwater discharges or MS4 discharges must contain effluent limits and conditions consistent with the requirements and assumptions of the WLAs in the TMDL.” EPA, *Revisions to the November 22, 2002 Memorandum ‘Establishing Total Maximum Daily Load (TMDL) Wasteload*

Allocations (WLAs) for Stormwater Sources and NPDES Permit Requirements Based on Those WLAs (November 12, 2010) (available at: http://www.epa.gov/npdes/pubs/establishingtmdlwla_revision.pdf); see also 40 C.F.R. § 122.44(d)(1)(vii)(B) (When developing water quality-based effluent limits, the permitting authority shall ensure that, *inter alia*, “[e]ffluent limits developed to protect a narrative water quality criterion, a numeric water quality criterion, or both, are consistent with the assumptions and requirements of any available wasteload allocation for the discharge. . . .”). While EPA’s guidance continues to allow Permit writers to express the Permit in terms of BMPs or numeric effluent limits, this decision is based on the circumstances surrounding the Permit and underlying WLA. As far as the instant Permit, data collected within the receiving watersheds as well as modeling that has occurred through the Chesapeake Bay Watershed Model provide EPA with strong confidence in the TMDL WLAs and the belief that the Permit should be written to meet these numeric WLAs.¹²

With regard to the suggestion to add the MEP standard to this paragraph, see response to the previous comment. As to the recommendation that the Permit allow changes to BMPs based on resource maximization or technological advancement, this Permit provides opportunities to propose alternatives for EPA approval in the context of the Annual Report, which shall include, among other requirements, the following elements: (h) An assessment of any SWMP modifications needed to meet the requirements of this Permit; and (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). See Section 6.2.1 of the Final Permit.

- o. The Commenter notes that the references in Table 1 (Required Program Stormwater Elements) to the November 27, 2007 and August 1, 2008 Letters of Agreement are not regulatory references and should not be described as such.

EPA Response: EPA has removed such references in the Final Permit; the Permit now relies solely on Chapter 5 of Title 21 of District of Columbia Municipal Regulations (Water Quality and Pollution) as authority for green technology stormwater management practices in (newly-numbered) Table 2 (Legal Authority for Required Program Stormwater Elements).

- p. The Commenter again suggests adding MEP language to the Permit, this time with regard to the requirement to design green technology practices to mimic pre-development site hydrology.

EPA Response: The Final Permit does not contain reference to the MEP standard. Rather, as noted *supra*, the Fact Sheet supporting the Permit has been revised to more clearly demonstrate how the Permit requirements are expected to represent a reduction of pollutants to the MEP. Thus, EPA has declined to make this change.

- q. The Commenter suggests revising Section 4.1.1 of the Draft Permit (Standards for New and Redevelopment) to replace the phrase “new development and redevelopment” with the single term “development,” which he argues is a “more all-encompassing term that more thoroughly addresses land disturbance.”

¹² More information on the Bay Model is available at: <http://www.chesapeakebay.net/modeling.aspx>.

EPA Response: EPA agrees, and has changed the reference throughout the Permit from “new development and redevelopment” to simply “development.” The Permit (Section 9) defines “development” as “the undertaking of any activity that disturbs a surface area greater than or equal to 5,000 square feet. 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.”

- r. At Section 4.1.1.a.i of the Draft Permit, the Commenter proposes changing the Permit to allow 18 months to incorporate new performance standards for new and redevelopment. This would include 12 months to develop and promulgate regulations and 6 months for Permitting of grandfathered projects that were designed under the old regulations.

EPA Response: EPA has made this change: Section 4.1 of the Final Permit allows 18 months to incorporate new performance standards for development as requested.

- s. Also at Section 4.1.1.a.i of the Permit, the Commenter seeks a 1.0” retention standard for non-federal facilities (v. 1.2” as proposed), as well as an on-site retention standard of MEP for public right-of-way projects. In support of his requests, the Commenter includes several pages of discussion and argument about the basis for his requests, such as consistency with District stormwater management regulations and the uniqueness of various site conditions that exist for public right-of-way projects (*e.g.*, limited space, structural integrity of pavement, parking and bridges). Among other sources, the Commenter cites comments by the American Association of State and Highway Transportation Officials to EPA’s Stormwater Regulations (Dec. 28, 2009) in support of his position.

EPA Response: EPA notes initially that the Final Permit has been revised to impose the same retention standard on all covered facilities (*i.e.*, non-federal and federal) within the DC MS4 Permit Area; therefore this response addresses all covered facilities. Section 4.1 of today’s Fact Sheet contains a detailed rationale for the 1.2” performance standard, explaining why it is the appropriate standard. As further explained in the Fact Sheet, EPA’s data suggest that a lowered standard would be insufficient to achieve the District’s pre-development hydrology with respect to the volume, rate, and duration of the runoff for most sites, and therefore the Final Permit has retained the 1.2” standard. The Fact Sheet also explains how this figure is further supported by DC’s Watershed Implementation Plan, *Chesapeake Bay TMDL Watershed Implementation Plan District of Columbia Department of the Environment*, (November 29, 2010) (available at: http://ddoe.dc.gov/ddoe/frames.asp?doc=/ddoe/lib/ddoe/tmdl/Final_District_of_Columbia_WIP_Bay_TMDL.pdf).

With regard to the request for an MEP standard for public right-of-way projects, the Final Permit does not contain reference to the MEP standard. Rather, the Fact Sheet supporting the Permit has been revised to more clearly demonstrate how certain Permit requirements are expected to result in a reduction of pollutants to the MEP. Thus, EPA has declined to make this change. However, EPA has revised the Permit to require that a minimum of 1,500,000 square feet of

retrofits must be in transportation rights-of-way, whereas the Draft Permit required 3,600,000 square feet of such projects (Section 4.1.5 of Final Permit).

- t. The Commenter makes two additional points with regard to Section 4.1.1.a.i of the Permit: (1) the Permit should include an allowance for adjustments to retention standards to promote Smart Growth objectives; and (2) the District's Stormwater Management Regulations are not intended to cover certain types of projects (*e.g.*, utility maintenance and home gardening), and therefore such projects should be exempt from the performance standards for non-federal facilities.

EPA Response: The Final Permit authorizes the District to develop off-site mitigation and/or fee-in-lieu programs (Section 4.1.3), and allowances for adjustments to retention standards may be included as part of these programs. It includes a provision that the District develop specific criteria for determining when compliance with the baseline requirement for on-site retention cannot technically be met. *See* Final Permit at Section 4.1.3.

As to the Commenter's suggestion that the Permit exclude certain types of projects, EPA does not believe that a waiver for development standards for utility maintenance and repair activities is appropriate. While the Permit is silent as to these activities, operation and maintenance of municipal operations and related activities are specifically covered by the federal regulations, 40 C.F.R. § 122.26(d)(2)(iv)(A), as well as in various Agency guidance documents, *see e.g.*, EPA, *MS4 Permit Improvement Guide* (April, 2010). Therefore, EPA has declined to make the requested change.

- u. At Sections 4.1.1.a. and 4.1.1.b, the Commenter contends that there is a conceptual problem with Permit requirements to achieve retention of predevelopment runoff volume, since the difference between predevelopment and post-development runoff volumes is what is attributable to development and should be controlled (as opposed to achieving predevelopment hydrology).

EPA Response: The District is responsible for the runoff from the MS4 Permit Area whether it is due to development or not, *i.e.*, the site should function as it did before any development occurred. For example, if the site has a parking lot on it or is otherwise impervious, the property owner or operator must still address the stormwater being discharged from the site and not just maintain the pre-project runoff properties of the site.

- v. The Commenter contends that specifying different retention standards for non-federal and federal facilities, but then providing the same alternative to those standards to both non-federal and federal facilities, is problematic. The Commenter's suggestion to resolve this problem would be to specify that non-federal facilities be held to a lesser standard than federal facilities for achieving pre-development hydrology.

EPA Response: The Final Permit has been revised to impose the same retention standard on all covered facilities (*i.e.*, non-federal and federal) within the DC MS4 Permit Area. Today's Fact Sheet contains a detailed rationale for the applicability of this standard to all facilities. To the

extent that the comment deals with the option for projects involving federal facilities to model pre-development hydrology, it is now moot. *See* Comment Response 9.d herein.

- w. The Commenter raises a concern that the Department of Defense's disagreement with the dual standard could entangle the District in legal proceedings that would detract from its efforts to control stormwater pollution, as well as expose the District to possible noncompliance with Permit requirements. Also, the Commenter requests that language be included in the Permit which will make clear that EPA (v. DDOE) will take responsibility for ensuring compliance at federal facilities. Finally, the Commenter would like the Permit to indicate that if a federal facility does not comply with stormwater requirements, the District will not be considered to be in violation of the MS4 Permit.

EPA Response: The Final Permit has been revised to impose the same retention standard on all covered facilities (*i.e.*, non-federal and federal) within the DC MS4 Permit Area. Therefore, to the extent that the draft Permit posed the potential to "entangle the District in legal proceedings," as suggested by the Commenter, the issue should be resolved. EPA also notes that the Permit requires that the District implement an enforceable mechanism that will adopt and implement the applicable performance standard; so long as the District implements those requirements, it will be in compliance with the relevant Permit condition. In other words, the District's record clearly demonstrating its efforts to comply with permit requirements that it implement procedures to ensure enforcement may be sufficient for purposes of compliance with the Permit -- even if federal facilities are recalcitrant toward such efforts.

- x. The Commenter suggests that EPA delete the last two paragraphs in Part 4.1.1.b. as the first includes language that requires the District to "demonstrate quantitatively that the Permit conditions meet the WLA" in order for implementation of the performance standards to be considered equivalent to WQS and WLAs. The Commenter contends that the second paragraph, which requires that individual discharges from development sites be controlled sufficiently to comply with DC WQS unless fully compensated for by in-lieu or off-site mitigation credits, is an unclear and possibly unachievable standard for development projects to meet.

EPA Response: The language related to water quality standards and wasteload allocations has been removed from Section 4.1. However, Section 1.4 of the Final Permit addresses the issue more generally for all provisions in the permit by requiring compliance with the performance standards and provisions contained in the Permit. Full compliance with the Permit's standards and requirements constitutes adequate progress toward compliance with the District's water quality standards and wasteload allocations for the relevant permit term. Section 4.1.3 of the Final Permit does allow for off-site mitigation and payment-in-lieu specifically as an alternative to on-site compliance with the 1.2" standard.

- y. At Section 4.1.1.d of the Draft Permit (Off-Site Mitigation), the Commenter suggests edits which would: allow 18 months to implement an off-site mitigation and fee-in-lieu program; provide for zoning restrictions and "other specific considerations" as justification for why the performance standard cannot be met; require the District to create incentives for meeting the performance standard first, mitigating impacts off-site

second and paying a fee in lieu of complying as a third option, rather than allowing the developer to choose which alternative compliance method to utilize if the performance standard cannot be met; and finally, allow the District to exempt public ROW projects from the mitigation and/or fee-in-lieu requirements.

EPA Response: As requested, the Final Permit (Section 4.1.3) allows the District 18 months to develop, public notice, and implement a mitigation and/or fee-in-lieu program. Rather than including the specific criteria requested by the Commenter, though, the Final Permit provides the District with sufficient flexibility through requiring the program to include at a minimum: (1) Establishment of baseline requirements for on-site retention and for mitigation projects; (2) Specific criteria for determining when compliance with the baseline requirement for on-site retention cannot technically be met based on physical site constraints; (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; and (4) The necessary tracking and accounting systems to implement this section, including that original and off-site practices stay in place and are adequately maintained. *See* Section 4.1.3 of Final Permit.

- z. The Commenter suggests that it does not make sense to have payments-in-lieu submitted to the Stormwater Enterprise Fund because DDOT relies on those funds to implement stormwater management practices in the right-of-way.

EPA Response: The Final Permit removes the requirement that payments-in-lieu be submitted to the Enterprise Fund.

- aa. The Commenter proposes changing the Performance Standard for retrofits to reduce the square footage minimum in District transportation rights-of-way, and to indicate that 100% of the right-of-way treatment area shall be counted toward the minimum requirement (even if specific site analysis determines that a retention standard less than 1.2” is necessary).

EPA Response: In the Final Permit, EPA has reduced the minimum square footage for transportation right-of-way retrofit projects by more than one-half -- from 3,600,000 square feet to 1,500,000 square feet. Section 4.1.5.4. This section also allows the District flexibility in establishing performance metrics for the different categories of retrofit projects.

- bb. The Commenter suggests removing the requirement to “establish agreements” with Federal agencies to conduct retrofits in Section 4.1.2.4 of the Draft Permit. Further, he notes that the 2009 Federal Executive Order 13508 on Chesapeake Bay Protection and Restoration requires a Federal strategy to address water quality pollution in the Chesapeake Bay watershed, which will include retrofits of Federal facilities for stormwater management. These retrofits would be applied to existing facilities, however, and as such may not trigger the District’s regulatory process for stormwater management. As these retrofits might be conducted outside this existing regulatory mechanism, the Commenter contends that the District’s ability to engage Federal facilities on the subject of retrofits is limited to education, outreach, and identification of retrofit opportunities therefore the Permit language should be edited to reflect this.

EPA Response: EPA has removed the requirement to establish agreements with Federal agencies to conduct retrofits. *See* Section 4.1.5 (“The District, with facilitation assistance from EPA Region III, will also target major Federal landholders, such as the General Services Administration and the Department of Defense, for outreach and education, with the objective of identifying retrofit opportunities and documenting federal commitments.”).

cc. As to tree canopy requirements, the Commenter requests that the annual tree planting requirement be amended to apply throughout the District rather than just within the DC MS4 area. Further, the Commenter suggests editing the Permit to provide that the plantings would be done using appropriate BMPs rather than specifying DDOT or UFA guidelines as drafted.

EPA Response: The requirements for tree planting contained in the Final Permit (Section 4.1.5) are documented in the 2008 Modified Letter of Agreement signed by EPA and the District. DDOE, *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>). *See* today’s Fact Sheet for additional analysis of the Permit requirements for tree planting. In response to the Comment, EPA has revised the Permit to remove reference to DDOT or UFA guidelines; rather, the Permit requires trees to be planted in accordance with the Planting Specifications issued by the International Society of Arboriculture “as appropriate to the site conditions.”

dd. Rather than evaluate all District-owned properties for green roof locations (which it feels is overly burdensome), the Commenter requests that the Permit require the District to evaluate properties that are slated for new construction or redevelopment as part of the District’s capital program. Further, the Commenter requests that the Permit only require the *reporting* of schedules rather than committing to a long-term schedule for the construction of green roofs.

EPA Response: EPA has declined to make the requested changes, since it believes that it is appropriate and not unduly burdensome to evaluate all District properties for feasibility as a green roof site. Likewise, EPA feels that the District should be able to commit to the number of required green roofs, and not simply to report on their installation. Also, as noted in response to the following Comment, the District has already committed to a certain square footage of green roofs during the Permit cycle.

ee. The Commenter requests that the Permit be reworded to clarify that the performance standard for green roof installation (350,000 square feet) is to be applied throughout the District rather than solely to District-owned properties.

EPA Response: EPA has declined to make this change, since the Permit language is consistent with the Agency’s understanding of ongoing District commitments. *See* DDOE, *Chesapeake Bay TMDL Watershed Implementation Plan District of Columbia Department of the Environment* (November 29, 2010) (available at:

http://ddoe.dc.gov/ddoe/frames.asp?doc=/ddoe/lib/ddoe/tmdl/Final_District_of_Columbia_WIP_Bay_TMDL.pdf) at p. 40.

- ff. The Commenter recommends that every new building and renovation project in the District generally, rather than those specifically in the Department of Real Estate Services (DRES) and Office of Public Education Facilities Modernization (OPEFM) inventory, be required to implement on-site retention measures. The Commenter further suggests that this requirement should only apply to projects which require a stormwater management plan and Permit. Finally, the Commenter contends that the language as currently drafted would require that the District install a green roof on every new building and renovation project, which he suggests is not feasible.

EPA Response: EPA understands that the two agencies mentioned in the Comment – DRES and OPEFM -- have control over most District buildings and renovation projects in the District. The Permit requirement that the District ensure that every major renovation/rehabilitation project for District-owned properties within the inventory of DRES and OPEFM include on-site stormwater retention measures is therefore appropriate.

As noted in today's Fact Sheet, the provision at issue 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.

As to the comment regarding green roofs, EPA agrees that it would be burdensome to evaluate all District properties for feasibility as a green roof site. However, EPA feels that the District should be able to commit to the square footage of green roofs required by the Final Permit (Section 4.1.7); in fact, it has already committed to a certain square footage of green roofs during the Permit cycle.

- gg. Commenter suggests that at Section 4.3.1 of the Permit (Sanitary Sewage System Maintenance Overflow and Spill Prevention), the phrase "through WASA" be added.

EPA Response: The Final Permit (Section 4.3.1) has been amended to include a requirement that the Permittee "coordinate with DC Water" to implement a response protocol for sanitary sewer system overflows. In addition, EPA notes that the Permit specifically identifies "DC Water and Sewer Authority (also known as DC Water)" as one of the departments designated as "Stormwater Agencies" by the Comprehensive Stormwater Management Enhancement Amendment Act of 2008, and provides that "[e]ach named entity is responsible for complying with those elements of the Permit within its jurisdictional scope and authorities." Final Permit at Section 2.3.1.

- hh. The Commenter requests the following addition to Section 4.3.2 of the Permit (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 or federal construction projects."

EPA Response: EPA has declined to make this change; the Permittee does not have direct authority over federal construction projects. The purpose of this requirement is not to include all parties to which it applies, but rather to make clear that District projects must also comply with the requirements of the Permit.

- ii. At Section 4.3.4 (Landscape and Recreational Facilities Management/Pesticide, Herbicide Fertilizer and Landscape Irrigation), the Commenter recommends deleting a requirement that pesticides or fertilizers may not be applied to an area “immediately prior to” a rain event, since it is impossible to predict all precipitation events.

EPA Response: The Final Permit (Section 4.3.4) has been amended to require that the Permittee ensure that “[n]o pesticides or fertilizers are applied to an area immediately prior to an expected rain event; during; or immediately after a rain event; or when water is flowing off the area.”

- jj. The Commenter believes that Section 4.3.6.3 should be changed to say that the District will evaluate and implement *where appropriate* porous pavement which require less deicing. In support of this argument, Commenter argues that most deicers are applied to main roadways and porous pavement has not been demonstrated to show durability under heavy traffic loads.

EPA Response: The Final Permit (Section 4.3.6) requires, *inter alia*, that “[t]he 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.” Implicit in this requirement is the fact that if an evaluation demonstrates that porous/permeable surfaces are not appropriate, they need not be implemented. At the same time, the Permit requirement will result in a documented evaluation that demonstrates why implementation is or is not appropriate.

As to the durability of porous/permeable pavements, such materials have been shown to hold up under heavy use; in fact, U.S. Department of Transportation has indicated that open-graded friction course is used “mainly on medium and high volume roads.” U.S. Department of Transportation, *Context Sensitive Roadway Surfacing Selection Guide, Appendix A – Roadway Surfacing Options Catalog* at p. 74 (August 2005) (available at: <http://www.cflhd.gov/programs/techDevelopment/pavement/context-roadway-surfacing/>). Also, state transportation departments have used them on heavily-travelled highways, such as in Georgia where state law requires use of porous surfaces on all interstate paving projects where stone matrix asphalt is required, *see* Georgia Department of Transportation, *Georgia Department of Transportation’s Progress in Open-Graded Friction Course Development* (undated) at p. 2 (available at: <http://www.dot.state.ga.us/doingbusiness/research/Documents/reports/r-OGFC.pdf>; and Texas; *see* http://www.arasphalt.com/pdf/rand_porous_friction_course.pdf). (A side benefit of these surfaces is that their porosity reduces slipperiness – thus making them safer. *See e.g.*, Georgia Department of Transportation at p. 6).

- kk. The Commenter requests that MEP language be included in Section 4.4.3 with regard to additional on-site controls to be required at critical sources.

EPA Response: The Final Permit does not contain reference to the MEP standard. Rather, the Fact Sheet supporting the Permit has been revised to more clearly demonstrate how certain Permit requirements are expected to represent a reduction of pollutants to the MEP. Thus, EPA has declined to make this change.

- ll. The Commenter suggests deleting a sentence under Section 4.8 of the Permit (Flood Control Projects) which required the Permittee to provide an explanation “as to how the implementation of these [flood control] procedures will meet the requirements of the Clean Water Act.”

EPA Response: The sentence to which the Commenter objects has been removed from the Final Permit.

- mm. The Commenter contends that improvements in a target audience’s understanding of stormwater issues may not be measurable, and therefore recommends removing this word from Section 4.9.1 of the Permit (Education and Outreach).

EPA Response: The goal of the education and outreach component of the SWMP is to improve District residents’ understanding of the causes and effects of stormwater pollution, as well as to educate them about how they can reduce those impacts; therefore this is what must be measured in order to demonstrate compliance with the related provisions. Moreover, EPA contends that it is in fact possible to measure the effects of public education and outreach. *See e.g.*, EPA, *Stormwater Phase II Final Rule Public Education and Outreach Minimum Control Measure* (Jan. 2000, rev. Dec. 2005) (available at: <http://www.epa.gov/npdes/pubs/fact2-3.pdf>); EPA, *Process for Developing Measurable Goals Under a General Permit* (undated; last accessed Feb. 3, 2011) (available at: <http://cfpub.epa.gov/npdes/stormwater/measurablegoals/part2.cfm>). (Although the first reference was written for Phase II communities and the second for general Permit issuers, they are equally applicable to Phase I entities such as the Permittee).

- nn. The Commenter recommends revising Section 5.1.1. of the Permit (Revised Monitoring Plan) to allow the District to use the Simple Method and/or other appropriate modeling tools and data on BMP efficiencies as detailed in the District of Columbia SWMP and Anacostia and Rock Creek TMDL WLA Implementation Plans. Further, the Commenter suggests adding language to the Permit which indicates that cadmium monitoring will be conducted to determine if cadmium should be considered a pollutant of concern, since cadmium does not have an MS4 WLA.

EPA Response: As written, the Final Permit is silent as to the method that must be used for calculating pollutant loading estimates, which allows the Permittee flexibility to choose the method that it feels is most appropriate (including those specified in its Comment letter).

As to the request to add language specifying that cadmium was not a pollutant of concern, but that evaluation of monitoring results will be made in DMRs to see whether it should be listed, discharge monitoring reports submitted by the District demonstrate that it has in fact experienced detectable levels of cadmium at various monitoring stations during recent years. As such, it is a

"pollutant of concern" for purposes of the Permit, and EPA has declined to make the requested change.

- oo. At Section 5.1.3 of the Permit, the Commenter suggests a revision to indicate that monitoring data would not be the sole tool used during program assessment. The Commenter argues that the District will evaluate program effectiveness by using monitoring data as well as data on sediment-correlated reductions and data on the effectiveness of structural and non-structural BMPs for pollutant reduction.

EPA Response: Section 5.1 of the Permit (Revised Monitoring Program) describes the minimum uses of monitoring information to evaluate the quality of the stormwater program. EPA encourages the District to include additional monitoring analysis in the Revised Monitoring Program as appropriate to evaluate the quality of the stormwater program and the health of the receiving waters.

- pp. The Commenter requests that the reporting deadline established in Section 5.1.3.2. be extended to six months prior to Permit expiration to allow maximum time for storm event sampling.

EPA Response: This comment is no longer relevant. The Revised Final Permit requires the District to develop a new monitoring strategy, with some short-term interim monitoring requirements. *See* Section 5.

- qq. The Commenter requests that the Permit be amended to state that storm event sampling can be conducted using grab or composite samples per 40 C.F.R. § 122.21(g)(7).

EPA Response: The language suggested by the Commenter is similar to a portion of 40 C.F.R. § 122.21(g)(7) that is addressed to non-stormwater discharges. In contrast, EPA's language in the Final Permit (Section 5.2.3) mirrors the portion of that regulation that covers stormwater discharges. EPA also notes that the relevant regulatory provision is cross-referenced at Table 2, Legal Authority for Selected Required Program Stormwater Elements.

- rr. The Commenter suggests that the analytical method listed for Mercury at Section 5.7.2 of the Draft Permit is likely incorrect.

EPA Response: EPA appreciates the Comment, and has revised the Permit to indicate that Method 1631E is to be used for Mercury. (The previous reference was likely a typographical error). *See* Final Permit at Section 5.6.2.

- ss. As to Section 6.2.1.d (reporting on projected cost of SWMP implementation), the Commenter suggests replacing "notwithstanding" prior to statute list with "subject to."

EPA Response: EPA has made the requested change at Section 6.2.1.d of the Final Permit.

- tt. The Commenter believes that Section 8.1.1 of the Permit (WQS and TMDL WLA Implementation Plans and Compliance Monitoring) should be revised to include MEP language with regard to meeting TMDL WLAs.

EPA Response: The Final Permit does not contain reference to the MEP standard. Rather, the Fact Sheet supporting the Permit has been revised to more clearly demonstrate how certain Permit requirements are expected to represent a reduction of pollutants to the MEP. Thus, EPA has declined to make this change.

- uu. The Commenter requests an extension to the one-year deadline for the District to develop/update TMDL Implementation Plans to 18 months as required by Section 8.1 of the Draft Permit (WQS and TMDL WLA Implementation Plans and Compliance Monitoring). The Commenter argues that it will take at least 18 months to perform analytical and field work required to develop and/or update these plans while incorporating time into that process to allow for meaningful public involvement. At the same section, the Commenter suggests that the Permit allow that, in the event that currently-approved TMDLs are vacated or no longer in effect, the District will be allowed an *additional* 18 months to update required TMDL Implementation Plans from the new date of TMDL establishment.

EPA Response: The Final Permit has been reorganized so that general TMDL Implementation Plans are no longer required; rather specific implementation requirements to attain WLAs have been included. Also, the Permit now requires a Consolidated TMDL Implementation Plan two years after the effective date of the Permit: “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.”¹³ Section 4.10.3 (Consolidated TMDL Implementation Plan). This provides the Permittee with an additional six months to develop plans for WLAs developed during the life of this Permit.

- vv. Also at Section 8.1 of the Draft Permit, the Commenter suggests modifying the requirement for sediment TMDLs to allow the Permittee -- in addition to using sediment implementation plans—to use more direct methods such as BMP efficiencies and/or monitoring for demonstrating specific pollutant waste load reductions. Further, the Commenter believes that the District should be permitted to use reductions in sediments to plan for and track reductions in appropriate pollutants for which that correlation has been demonstrated in the literature, including conventional pollutants and these allowances should be stated in the Permit in Section 8.1.2.

¹³ The permit goes on to provide that the Consolidated TMDL Implementation 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 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.” *Id.*

EPA Response: The requirements for the Consolidated TMDL Implementation Plan in the Final Permit (now located at Section 4.10.3) do not preclude the use of any plans, data, information, etc. that the District may want to include in the development of its Consolidated TMDL Implementation Plan.

Moreover, EPA Policy provides that “[i]f the state or EPA has established a TMDL for an impaired water that includes WLAs for stormwater discharges, Permits for either industrial stormwater discharges or MS4 discharges must contain effluent limits and conditions consistent with the requirements and assumptions of the WLAs in the TMDL.” EPA, *Revisions to the November 22, 2002 Memorandum ‘Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Stormwater Sources and NPDES Permit Requirements Based on Those WLAs’* (November 12, 2010) (available at: http://www.epa.gov/npdes/pubs/establishingtmdlwla_revision.pdf); see also 40 C.F.R. § 122.44(d)(1)(vii)(B) (When developing water quality-based effluent limits, the permitting authority shall ensure that, *inter alia*, “[e]ffluent limits developed to protect a narrative water quality criterion, a numeric water quality criterion, or both, are consistent with the assumptions and requirements of any available wasteload allocation for the discharge. . . .”). While EPA’s guidance continues to allow Permit writers to express the Permit in terms of BMPs or numeric effluent limits, this decision is based on the circumstances surrounding the Permit and underlying WLAs. As far as the instant Permit, data collected within the receiving watersheds, as well as modeling that has occurred through the Bay Watershed Model, provide EPA with strong confidence in the TMDL WLAs and the belief that the Permit should be written to meet these numeric WLAs.¹⁴

ww. At Section 8.1 of the Draft Permit (WQS and TMDL WLA Implementation Plans and Compliance Monitoring) the Commenter makes several suggestions.

EPA Response: Based on multiple comments on the inadequacy of the TMDL provisions in the Draft Permit, EPA has modified the relevant provisions. The Final Permit requires the District to develop a Consolidated TMDL Implementation Plan for all TMDLs for which the MS4 has been assigned a wasteload allocation. Section 4.103. Because multiple commenters expressed interest in TMDL implementation planning, the Permit requires the District to public- notice the Plan. *Id.*

Further, EPA Policy provides that “[w]here a TMDL has been established and there is an accompanying implementation plan that provides a schedule for an MS4 to implement the TMDL, the Permitting authority should consider the schedule as it decides whether and how to establish enforceable interim requirements and interim dates in the Permit.” EPA, *Revisions to the November 22, 2002 Memorandum ‘Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Stormwater Sources and NPDES Permit Requirements Based on Those WLAs’* (November 12, 2010) (available at: http://www.epa.gov/npdes/pubs/establishingtmdlwla_revision.pdf). EPA contends that the substantive requirements of the Final Permit are appropriate for implementing applicable TMDLs.

¹⁴ See n. 12 herein for link to Bay Model.

- xx. The Commenter objects to the requirement to conduct evaluations and make potential changes to TMDL Implementation Plans on an annual basis. Instead, the Commenter proposes that the District evaluate and potentially modify each management approach as part of the larger assessment of each TMDL Implementation Plan as part of the District's Stormwater Management Plan submittal prior to Permit expiration (every five years). The Commenter submitted proposed edits to the Permit language to reflect his recommendations.

EPA Response: EPA has reorganized and clarified the requirements for TMDL WLA Planning and Implementation at Section 4.10 of the Final Permit. Further, EPA has placed specific implementation measures into the Permit in order to make them more directly understandable and enforceable. EPA has similarly directly incorporated implementation requirements for the recently-approved Anacostia Trash TMDL (Sept. 21, 2010) (available at: http://ddoe.dc.gov/ddoe/frames.asp?doc=/ddoe/lib/ddoe/services/pdf/Final_Anacostia_Trash_TMDL.pdf), and subjected the one element requiring some planning effort to public notice and comment and to EPA approval.

In addition, EPA notes that the Permit incorporates certain underlying requirements of the Chesapeake Bay TMDL, including necessary reductions of nitrogen, phosphorus and sediment from the District of Columbia (as well as other Bay jurisdictions) that—when attained—will allow the Bay to attain its applicable water quality standards. As background to these anticipated reductions, EPA notes that each Bay jurisdiction developed a Watershed Implementation Plan (WIP) to identify how it intends to meet the reductions called for in the TMDL. Section 7.2 of the District's Final Phase I WIP (submitted as part of the Chesapeake Bay TMDL), *Chesapeake Bay TMDL Watershed Implementation Plan District of Columbia Department of the Environment* (November 29, 2010) (available at: http://ddoe.dc.gov/ddoe/frames.asp?doc=/ddoe/lib/ddoe/tmdl/Final_District_of_Columbia_WIP_Bay_TMDL.pdf), indicates that it relied in part on the Draft DC MS4 Permit as a guide in development of the WIP. This document, which represents DC's Phase I WIP, specifically anticipates reductions of nitrogen, phosphorus, and sediment contributions to the Bay by 11, 27, and 26 percent, respectively, by relying on District commitments such as:

- Install at least 350,000 sq ft of green roofs over the Permit cycle on District property
- Plant at least 4,150 trees annually with a goal of planting and maintaining 13,500 additional trees by 2014 and increasing its tree canopy from 35% to 40% by 2035
- Insure that all development greater than 5,000 sq ft retain stormwater generated from a 1.2" 24-hour storm
- Promotion of low-impact development

- yy. The Commenter recommends that the compliance schedule in Table 5 (p.41), which is referred to in this section and appears on page 34, should be revised to require the Potomac River TMDL Implementation Plan eighteen months after EPA approval of the Potomac River TMDLs rather than one year.

EPA Response: Through the Final Permit, the District is now required to develop a Consolidated TMDL Implementation Plan for most District TMDLs, including the Potomac River TMDL. That Plan is due within two years of the effective date of this Permit.

zz. The Commenter proposes that the District be allowed to identify appropriate monitoring locations as part of the Revised Monitoring Plan (Section 5.1); he indicates that the District would be in a better position to choose locations to evaluate the effectiveness of the Hickey Run Strategy rather than the Permit specifying monitoring locations.

EPA Response: Per Section 5.1.1 of the Final Permit, the District must submit to EPA a Revised Monitoring Program, which will include locations of sampling stations within one year of the effective date of the Permit. The Commenter is invited to include such recommendations as part of that process. Meanwhile, the interim monitoring requirements described in Section 5.2 apply until the Revised Monitoring Program is submitted and approved. See today's Fact Sheet for the rationale for maintaining the ongoing monitoring provisions as part of the Interim Monitoring Program.

aaa. The Commenter requests that Section 9.4 of the Permit (Duty to Mitigate) be modified as follows:

~~In the event that the Permittee or Permitting authority identifies non-compliance with this Permit, determines that discharges are causing or contributing to a violation of applicable WQS, the Permittee shall take corrective action as soon as possible to achieve compliance, using an adaptive management approach as appropriate. This action will constitute compliance with applicable WQS and WLAs. The methods used to adaptively manage the stormwater management program will be documented in subsequent annual reports or in revisions to the Stormwater Management Plan, as appropriate. 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 Plan dated February 19, 2009.~~

In support of its requested language change, the Commenter cites an Oregon State Court of Appeals ruling, *Tualatin Riverkeepers v. Oregon Dep't of Env'tl Quality*, 235 Ore. App. 132, *; 230 P.3d 559, (April 28, 2010),¹⁵ and indicates that its request to include a

¹⁵ The Comment includes a footnote following this case name reference, which EPA believes it intended to use to provide a citation to the referenced decision. In fact, the Comment includes a reference to a different and unrelated decision, *Anacostia Riverkeeper, Inc., et al. v. EPA*. EPA believes that this footnote was in error and pasted in from the preceding footnote in DOE's comment letter. Therefore, for purposes of this response, EPA is assuming that the Commenter intended to only reference the Oregon decision for this point.

EPA also notes the subsequent appellate history of *Tualatin Riverkeepers*: several months after DDOE submitted its comments on the Draft DC MS4 Permit, the Oregon Supreme Court denied the Petition for Review. 349 Ore. 173; 243 P.3d 468 (Oct. 21, 2010).

provision that failure to meet an approved benchmark should not be considered a Permit violation (unless the Permittee has also failed to follow the adaptive management process to improve the stormwater management plan) is in alignment with that state court decision.

EPA Response: In the *Tualatin Riverkeepers* decision, the state Permits at issue already contained language similar to that requested by the Commenter. Therefore, the Court did not need to reach the issue of whether those Permits were *required* to include such language. In any event, the *Tualatin Riverkeepers* Court also suggested that its ruling was limited to Oregon State law:

Petitioners do not contend that the municipal stormwater permits violate the requirements of *federal law*. In *Defenders of Wildlife v. Browner*, 191 F.3d 1159, 1163, reh'g *en banc* denied, 197 F.3d 1035 (9th Cir. 1999), the court explained the background of the regulation of municipal stormwater and explained the requirements of federal law with respect to such stormwater and state water quality standards. The court held that permits providing for discharges of municipal stormwater need not require strict compliance with state water quality standards under the federal law. Although the Environmental Protection Agency (EPA) has discretion to require such compliance as it determines appropriate, the federal statutory scheme requires only that municipal stormwater dischargers "reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and systems, design and engineering methods, and other such provisions as the Administrator * * * determines appropriate for the control of such pollutants." *Id.* at 1165 (quoting 33 USC § 1342(p)(3)(B)(iii) (omission in original)).

235 Ore. App. at 139; 230 P.3d at 563, n. 8 (emphasis added). Therefore, that decision is not a basis for changing the relevant permit language at Section 8.4 (Duty to Mitigate, formerly Section 9.4). In the instant case, EPA -- as the Permit writer -- has made a decision to include the overarching language that "[c]ompliance with all performance standards and provisions contained in this Permit shall constitute adequate progress toward compliance with DCWQS and WLAs for this Permit term." See Final Permit at Section 1.4; discussion at Section 1.4 of Fact Sheet. Therefore, the Agency has determined that it is unnecessary to include the language requested by Commenter in connection with an individual Permit section, such as the Duty to Mitigate.

bbb. Commenter proposes deleting Section 9.17 (Bypass) and recommends deleting the definition for "severe property damage" if the "Bypass" language in Part 9.17 is also deleted.

EPA Response: The bypass provision is a standard condition required to be placed in all NPDES Permits, pursuant to 40 C.F.R. § 122.41. Because MS4 Permits such as the one issued to the District are within the category of NPDES Permits, those general regulations apply to this and other MS4 Permits. (Note that the provision has been moved to Section 8.17 of the Final

Permit.) Accordingly, EPA has also declined to delete the definition for “severe property damage.”

ccc. Commenter seeks to have definitions of “Internal Sampling Station” and “Significant Materials” removed from Section 10 of the Permit (now Section 9), presumably because the terms are not used elsewhere in the document.

EPA Response: EPA appreciates the Comments, and has deleted the definitions.

ddd. The Commenter requests a change to the definition of “retrofit,” and argues that the definition should be broadened to include not only modifications to stormwater conveyance systems, but also new BMPs constructed on development sites. He further notes that the requested definition would allow the District to replace traditional BMPs with non-traditional BMPs, such as bioretention cells.

EPA Response: EPA has revised the Final Permit to define “retrofit” as “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.” See Section 9 of Final Permit.

eee. The Commenter cites a recent Court ruling as a basis for seeking an exclusion from liability under the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (“CERCLA”), 42 U.S.C. §§ 9601, *et seq.*, 42 U.S.C. § 9607(a)(3). The Commenter expresses concern that compliance with the MS4 Permit could render it liable under CERCLA because of the ruling in *United States of America v. Washington State Dep’t of Transp.*, 716 F. Supp. 2d 1009 (W.D. Wash. June 7, 2010). The Commenter asks that EPA state in the Permit that it intends to regulate municipal stormwater discharges under a federal Permitting scheme, not under a CERCLA liability theory. The Commenter further states that the District would be remiss if its expenditures of stormwater fees on MS4 Permit compliance -- even while achieving beneficial stormwater controls to protect and restore District waters -- also led to CERCLA liability.

EPA Response: EPA does not believe that it is appropriate to state in the Final Permit that it intends to regulate municipal stormwater discharges solely under a federal Permitting scheme for several reasons. First, while it is true that DC’s MS4 Permit is in no way intended to create CERCLA liability for the District, the case cited by the Commenter, *United States v. Washington State Dep’t of Transportation (WSDOT)*, 716 F. Supp. 2d 1009 (W.D. Wash. June 7, 2010), is not a basis for making the requested change to the Permit.¹⁶ The issue in *WSDOT* was whether the Court had enough information to grant summary judgment regarding a Permittee’s contention that the releases of hazardous substances in stormwater discharges were “federally permitted releases.” While the Court noted that it was “undisputed” that two stormwater Permits existed, it

¹⁶ EPA notes that the same litigation has resulted in two additional summary judgment decisions – one re: coal tar contamination, 2010 U.S. Dist. LEXIS 68100, and the other re: arranger liability for coal tar discharges, 2010 U.S. Dist. LEXIS 121759. Neither decision is relevant to this permit, so they are not discussed herein. The Final (Amended) Judgment in this case was recently filed. *United States v. Washington State Dep’t of Transportation (WSDOT)*, Case No. C08-5722RJB (W.D. Wash. April 8, 2011).

denied summary judgment as to Federally-permitted releases because of the dispute as to: (1) whether WSDOT was in compliance with those Permits; (2) the scope of the Permits; (3) whether there were releases outside that scope; and (4) whether the injury was divisible. *See id.* at *18-*19.

Second, if the District (or one of its agencies, such as DDOT), were to be held liable under CERCLA because of actions taken in compliance with its MS4 Permit, whether or not the MS4 Permit says anything specific about CERCLA liability is irrelevant to determining whether such agency is liable under CERCLA.

Third, to the extent that the Commenter claims that potential liability under CERCLA will serve as a disincentive against performing stormwater management activities, EPA has no information that any requirement under the Final Permit would in any way whatsoever increase pollutant delivery to the stream, and certainly not the sorts that are regulated under CERCLA.

Finally, if the Permit were to include a statement like the one requested by the Commenter, *i.e.*, that EPA does not intend to regulate the MS4 under a CERCLA theory of liability, it could imply that EPA considered the Permit to result in liability under other statutes it administers—something with which the Permittee would no doubt take issue.

fff. The Commenter notes that the U.S. Government Accountability Office (GAO) submitted a letter dated September 29, 2010 to DC DOE deeming the District's stormwater fee a tax that it will not pay. The Commenter suggests that GAO's position that liability for the stormwater fee arises as a result of property ownership (v. provision of a service or granting of a privilege) is contrary to EPA's finding that the amount of surface imperviousness in an area directly corresponds to the amount of harmful downstream pollution from stormwater runoff. As a result, the Commenter requests that the Permit be revised to address several new issues, including a decrease in fee revenue that would otherwise be relied upon for treatment of stormwater discharged to the MS4. Similarly, the Commenter indicates that, as the Permittee, it may be unable to meet its obligations contained in the Stormwater Management Plan (incorporated into the Permit) and that acceptance of the Permit may be in violation of the federal Anti-Deficiency Act, 31 U.S.C. §§ 1341, 1342, 1349, 1351, as well as several provisions of the D.C. Official Code, including §§ 47-355.01-355.08, § 47-105, and § 1-204.46. The Commenter thus suggests several options for EPA in dealing with the expected non-payment of fees: (1) suspend issuance of the MS4 Permit, until the determination that the MS4 charge is a permissible fee is resolved by Courts or other political mechanisms; (2) reduce the number and/or scope of the management practices that the Permit would require the District to implement; or (3) implement alternative Permitting options for the approximately 1,498 federal properties and other properties who refuse coverage under the MS4 Permit by issuing those entities individual Permits or a general Permit specific to their operations.

EPA Response: EPA is aware of GAO's correspondence, and the Agency is aware that the District relies on the impervious surface assessment as a basis for supporting its compliance with the Permit requirements. However, the scope of this Permit is limited to imposing stormwater

controls and effluent limitations on the District as Permittee (see Section 1 of Final Permit). In any event, EPA notes that Senate Bill 3481, which requires the federal government to comply with local stormwater fees that are used to treat and manage polluted stormwater runoff, passed the U.S. Senate and House by unanimous consent on Dec. 21 and Dec. 22, 2010, respectively, and was signed into law by President Obama on January 4, 2011. *See A bill to amend the Federal Water Pollution Control Act to clarify Federal responsibility for stormwater pollution*, S. 3481, 111th Congress (2009 - 2010) (available at: <http://thomas.loc.gov/cgi-bin/bdquery/z?d111:S3481>). On March 14, 2011, the U.S. Government Accountability Office indicated its willingness to pay the fee in light of the recent legislation. *See U.S. Government Accountability Office, Letter re: Public Law 111-378 and Payment of the Stormwater Charge* (March 14, 2011).

12. District of Columbia Water & Sewer Authority (DC WASA) (a/k/a DC Water), George Hawkins (June 4, 2010).

The Commenter, District of Columbia Water & Sewer Authority (DC WASA), a/k/a DC Water, has made comments and suggested revisions, line-by-line, directly to the Draft Permit. EPA has taken each edit/comment under advisement; however, the Agency has only summarized the more substantive of them for the purposes of this response document. For example, comments/edits intended merely to clarify existing language that do not change the intent of the language, have not been summarized here. The comments/edits are summarized by applicable Permit section, but repetitive comments/edits made in multiple sections are not repeated. Each unique comment/edit is addressed once herein.

- a. Section 1.1: The Commenter suggests adding language to indicate that the Permit covers federally-owned lands.

EPA Response: EPA contends that the existing description of the Permit coverage area is adequate to describe the area covered by the Final Permit, and that there is no reason to specify individual types of facilities that are covered by the Permit. *See* Section 1.1 of Final Permit (“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”).

- b. Section 1.2: The Commenter suggests deleting a reference to the requirement for stormwater controls to be managed so that water quality is not impaired and also so that the requirements of the CWA and EPA regulations are met. The Commenter suggests that “applying the controls required in the Permit should be enough.”

EPA Response: While EPA has included in the Final Permit requirements for certain controls that are expected to result in improved water quality, as discussed in detail in today's Fact Sheet, it has deliberately kept certain aspects of the program flexible, since there are some areas in

which the Permittee is in the best position to determine how to apply the program. As a result, the Permit continues to include the overall requirement that stormwater practices generally comply with the Clean Water Act and its implementing regulations.

- c. Section 1.4: The Commenter suggests deleting language requiring the District to prohibit pollutants into the MS4 System as necessary to comply with WLAs, as well as a requirement that stormwater discharges be consistent with applicable WLAs for applicable TMDLs. Further the Commenter suggests removing language stating that compliance with the Permit would constitute progress towards achieving compliance with WQS. Commenter contends that these provisions are inconsistent with the BMP/MEP approach.

EPA Response: Section 301(b)(1)(C) of the CWA, 33 U.S.C. § 1311(b)(1)(C), requires the achievement of limitations, including those necessary to meet applicable water quality standards (WQS). Section 402(p)(3)(B) of the CWA, 33 U.S.C. § 1342(p)(3)(B)(iii), provides that Permits for discharges from municipal storm sewers “shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.” When read together, these two sections suggest that municipal sources control their discharges to the MEP, with the ultimate achievement of WQS which is expected to occur over several permit cycles. This is consistent with the construct of EPA’s Final Phase II Stormwater Rule, *National Pollutant Discharge Elimination System--Regulations for Revision of the Water Pollution Control Program Addressing Stormwater Discharge*, 64 Fed. Reg. 68722, 68731 (Dec. 8, 1999) (available at: http://cfpub.epa.gov/npdes/regresult.cfm?program_id=6&type=1&sort=name&view=all) (“At this time, EPA determines that water quality-based controls, implemented through the iterative processes described today are appropriate for the control of such pollutants and will result in reasonable further progress towards attainment of water quality standards. See Sections II.L and II.H.3 of the preamble.”); *id.* at 68753 (“EPA envisions application of the MEP standard as an iterative process.”); *id.* at 68754 (“EPA also believes the iterative approach toward attainment of water quality standards represents a reasonable interpretation of CWA section 402(p)(3)(B)(iii).”). See also further discussion at Section 1.4 of today’s Fact Sheet.

- d. Section 2.1.1: With regard to legal authority, the Commenter recommends substituting a reference to “in order to prevent or reduce the discharge of pollutants to achieve water quality objectives” to “in accordance with this Permit.”

EPA Response: Requiring activities in accordance with the Permit within the Permit itself is circular. Moreover, the existing language is consistent with the purpose of the CWA, which is to “restore and maintain the chemical, physical, and biological integrity of the Nation's waters.” Section 101 of the CWA, 33 U.S.C. § 1251.

- e. Section 2.1.2: The Commenter suggests increasing the deadline at Section 2.1.2 from one year to eighteen months.

EPA Response: EPA has made this requested change to Section 2.1.2, which requires the District to update and implement its Stormwater Regulations.

f. Section 2.1.5: The Commenter has proposed the following addition to this section:

“[The District shall r]eview and revise, where applicable, building, health, road and transportation, and other codes and regulations to remove barriers to, and facilitate, as appropriate, the implementation of” certain standards.

The Commenter includes a note that the insertion of the term “appropriate” is warranted to reflect the balancing of public/social needs that must occur when seeking to integrate updates to the stormwater code with building, health, transportation and other public health and safety codes.

EPA Response: EPA contends that the existing language of Section 2.1.4 (formerly 2.1.5) is sufficient as drafted. The performance standards themselves include sufficient allowances for the District to balance other public needs during implementation, and the language continues to indicate that the review and revision shall occur “where applicable.”

g. Section 2.3: The Commenter proposes editing the Permit text to clarify that the responsibility for complying with the Permit is outlined in the 2000 MS4 Task Force Memorandum of Understanding.

EPA Response: Section 2.3 of the Final Permit addresses stormwater management program administration and permittee responsibilities. Specifically, Section 2.3.1 provides that the Government of the District of Columbia is the permittee, and that activities of all agencies, departments, offices and authorities of the District must comply with the requirements of this permit. That Section also provides that DDOE is the stormwater administrator, and that it is to coordinate and facilitate a collaborative effort among certain city agencies, including: 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 WASA. Further, “[e]ach named entity is responsible for complying with those elements of the permit within its jurisdictional scope and authorities.”

Moreover, Section 2.3.2 of the Final Permit specifically indicates that DDOE is to coordinate, and all agencies are to implement, provisions of the MS4 Task Force Memorandum of Understanding (MOU) dated 2000, including 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 the Permit.

h. Section 3.1: Commenter indicates that the definition for “significant change” is too vague.

EPA Response: The definition of “significant change” is consistent with the definitions used in the 2000 and 2004 Permits and was previously approved by EPA when it was first proposed by the District.

- i. Section 3.2: The Commenter indicates that the section entitled “Outfalls” does not belong within the heading “Source Identification.”

EPA Response: EPA appreciates the comment, and has moved the relevant provision to Section 4.7.1.b of the Final Permit, under “Illicit Discharges and Improper Disposal.”

- j. Section 3.3: With regard to “Addressing Potential Pollutant Sources,” the Commenter suggests inserting edits to use the word “control” in place of “minimize and prevent” and “reduce or eliminate” in relation to addressing discharges of pollutants of concern from the MS4.

EPA Response: The relevant language is now located at Section 4.11 (Additional Pollutant Sources). EPA contends that the existing language at Section is consistent with the Clean Water Act’s directive that MS4 Permits “require controls to *reduce* the discharge of pollutants. . . .” 33 U.S.C. Section § 1342(p)(3)(B)(iii).

- k. Section 4, Table 1: The Commenter suggests deleting reference to the Letters of Agreement issued under the current Permit.

EPA Response: Because the Letters of Agreement existed only for purposes of the Permit issued in 2004, the reference has been removed. However, the Final Permit incorporates many of the underlying requirements of those Letters of Agreement, to the extent that they contained obligations yet to be performed or finalized. (Note that the language at issue has been moved to Section 3, Table 2 of the Final Permit.)

- l. Section 4.1.1: The Commenter requests a clarification on the size threshold for new and redevelopment standards, *i.e.*, whether it is 5,000 square feet disturbed or developments which create 5,000 square feet of impervious area.

EPA Response: The performance standard applies to “any project undertaking development that disturbs land greater than or equal to 5,000 square feet.” Section 4.1.1 of Final Permit (Standards for Stormwater Discharges from Development).

- m. Section 4.1.1: The Commenter requests that EPA carefully consider the impacts on redevelopment that the new standards would have. He also requests that EPA provide a “grandfather” provision to allow projects “already in the pipeline” to continue under existing standards. Finally, the Commenter would like for EPA to specify that utility maintenance and repair activities do not have to comply with these standards.

EPA Response: As to the suggestion that EPA carefully consider the impacts of the performance standard threshold on redevelopment, the Agency notes that requirements for stormwater controls do not generally contribute to sprawl; in fact, most available information demonstrates

that the converse is usually true. EPA also notes that 5,000 square feet is already the threshold for requiring when land disturbance projects (such as development) in the District must develop and implement a SWMP, and DC's Final Phase I Watershed Improvement Plan (submitted as part of the Chesapeake Bay TMDL) identifies this as the size threshold needed in order to meet the relevant WLAs. *See* District of Columbia, *Chesapeake Bay TMDL Watershed Implementation Plan District of Columbia Department of the Environment* (November 29, 2010) (available at: http://ddoe.dc.gov/ddoe/frames.asp?doc=/ddoe/lib/ddoe/tmdl/Final_District_of_Columbia_WIP_Bay_TMDL.pdf).

With regard to the request for “grandfathering,” the Final Permit does not actually impose standards for new and redevelopment, but rather requires the District to implement an “enforceable mechanism” for adoption of new standards for development through its regulatory process. *See* Section 4.1.1. This process will allow the regulated community time to prepare for the new standards, as well as the ability to participate in the public process.

As to the Commenter's suggestion that the Permit exclude certain types of projects, EPA does not believe that a waiver for development standards for utility maintenance and repair activities is appropriate. While the Permit is silent as to these activities, operation and maintenance of municipal operations and related activities are specifically covered by the federal regulations, 40 C.F.R. § 122.26(d)(2)(iv)(A), as well as in various Agency guidance documents, *see e.g.*, EPA, *MS4 Permit Improvement Guide* (April, 2010). Therefore, EPA has declined to make the requested change.

- n. Section 4.1.1.a: The Commenter requests a three-year deadline for full implementation of the standards as well as a phased, escalating standard which would start with 0.75 in. and reassess in five years to determine if 1.0 in. is appropriate and attainable and so on.

EPA Response: EPA has revised the deadline for full implementation of the standards from one year to 18 months. Section 4.1.1. The Agency believes that this new time-frame balances the District's ability to adopt the standard with the need to have it in place as soon as practicable. EPA disagrees that a phased implementation of the standard is appropriate, since available data suggest that such a standard can (and should) be readily implemented.

- o. Section 4.1.1.b: The Commenter requests a compliance schedule for implementing requirements regarding standards at federal facilities, and also indicates that there is no objection to imposing evapotranspiration, infiltration or harvesting requirements on federal facilities.

EPA Response: EPA notes initially that the Final Permit has been revised to impose the same retention standard on all covered facilities (*i.e.*, non-federal and federal) within the DC MS4 Permit Area; therefore this response addresses all covered facilities. As discussed further in today's Fact Sheet, EPA believes that the appropriate deadline for the District to implement the additional federal facility retention standard is 18 months following Permit issuance, and the Final Permit has been updated accordingly.

- p. Section 4.1.1.b: In addition to the preceding comment on this section, the Commenter suggests that two additional paragraphs formerly appearing at this Section were unnecessary. Those paragraphs stated that: (1) discharges controlled in accordance with certain Permit standards would be considered to be as stringent as necessary; and (2) pollutants in the discharge must be controlled to meet certain standards.

EPA Response: EPA agrees that the two cited provisions were unnecessary as duplicative with other provisions, and has addressed this concern by removing those two paragraphs from the Final Permit.

- q. Section 4.1.1.d: The Commenter requests a two-year deadline for implementing the District's required off-site mitigation and in-lieu of programs. Further, the Commenter proposes adding language to indicate that affordability, cost-effectiveness and "other considerations such as historic preservation" should be included as factors determining feasibility for meeting stormwater management standards.

EPA Response: The Final Permit increases the deadline for implementation of off-site mitigation and/or fee-in-lieu programs from one year to 18 months, which was the amount of time requested by DDOE.¹⁷ As to the suggested language regarding affordability, etc., the Permit includes several minimum requirements for such a program to ensure that the District appropriately consider feasibility for meeting stormwater management standards: (1) Establishment of baseline requirements for on-site retention and for mitigation projects; (2) Specific criteria for determining when compliance with the baseline requirement for on-site retention cannot technically be met based on physical site constraints; (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; and (4) The necessary tracking and accounting systems to implement this section, including that original and off-site practices stay in place and are adequately maintained. Section 4.1.3 of Final Permit.

- r. With regard to Section 4.1.2 of the Draft Permit (Retrofits), the Commenter recommends maintaining the one-year deadline for federal facilities, but extending the deadline to three years for non-federal facilities to comply with existing development retrofit requirements. Further the Commenter suggests adding language to indicate that tree planting would count toward the District's retrofit objective.

EPA Response: EPA has increased the deadline for the District to develop, public notice, and submit to EPA for review and approval a program that establishes performance metrics for retrofit projects. *See* Section 4.1.5 of Final Permit. This program will apply uniformly to all dischargers – including federal and non-federal facilities. However, EPA also notes that the Permit requires the District to "work with major Federal landholders, such as the General Services Administration and the Department of Defense, with the objective of identifying retrofit

¹⁷ EPA defers to DDOE's request, as the District has designated that agency as the entity 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. Final Permit at Section 2.3.1.

opportunities, documenting federal commitments, and tracking pollutant reductions from relevant federal actions.” Final Permit at Section 4.1.5.2.

As to the comment that tree planting should count toward the District’s retrofit objective, the Final Permit contains sufficient flexibility to allow the District to count activities within its tabulation of retrofit projects that it feels are appropriate for inclusion.

- s. With regard to Section 4.1.6 of the Draft Permit (Tree Canopy), the Commenter suggests an edit to the Permit to indicate that locations for tree plantings should be identified where feasible and *appropriate*, and that the District should *identify* specific schedules for implementation rather than committing to them. Further, the Commenter requests that the District only be held to an overall five-year cumulative tree planting goal rather than annual targets.

EPA Response: EPA contends that an annual tree planting standard is appropriate for assessing the progress and evaluating compliance with the District’s SWMP tree planting requirement. For a discussion of the basis of the Permit requirements for tree canopy in the District (now at Section 4.1.6 of the Permit), including a reference to the comprehensive Casey Trees *Green Build-Out Model*, see Section 4.1.6 of today’s Fact Sheet.

- t. With regard to Draft Permit Section 4.1.4 (Green Roof Projects), the Commenter suggests editing the Permit to indicate that green roof projects be identified which are “practicable and appropriate” rather than technically feasible. Further, the Commenter proposes to edit the text to indicate that a schedule for implementing green roof projects on District property should be completed by the end of the Permit term, rather than the projects themselves as is currently required in the Permit draft.

EPA Response: The Final Permit, Section 4.1.7, imposes a standard of “technically feasible” for identifying appropriate sites for green roofs, which EPA believes captures the Commenter’s suggestion as to practicability and appropriateness. Given the inclusion of this standard, the Permit requires implementation of projects during this Permit term.

- u. Section 4.2.1: The Commenter suggests adding a reference to the use of off-site mitigation and fees-in-lieu with regard to operation and maintenance of stormwater capture practices at District-owned and -operated practices.

EPA Response: The requested reference would be superfluous, given the inclusion of Section 4.1.3 (Off-Site Mitigation and/or Fee-in Lieu for all Facilities); EPA has declined to make this change.

- v. Section 4.2.2: The Commenter suggests editing the text to require the District to maintain a database of stormwater practices on private property beginning the fourth year of the Permit term.

EPA Response: The District already maintains an electronic inventory of stormwater capture practices on non-District owned property; accordingly, the Final Permit (Section 4.2.2) has been updated to reflect the need to continue the program.

- w. Section 4.2.3.a: The Commenter requests an extension on the deadline for the finalization of DC DOE's Stormwater Management Guidebook from 18 months to 30 months.

EPA Response: EPA views the Stormwater Management Guidebook as a critical component under the Final Permit and, upon consultation with DC DOE, considers 18 months an appropriate amount of time to complete this ongoing project task.

- x. Section 4.3.1: The Commenter proposes language requiring the District to coordinate with WASA on sanitary sewer overflow (SSO) issues, and to notify WASA when SSOs occur.

EPA Response: The Final Permit requires the District, as Permittee, to coordinate and facilitate a collaborative effort among other city agencies and departments, including WASA among others. See Section 2.3.1 (Stormwater Management Program Administration/Permittee Responsibilities). In addition, EPA has revised the Permit as follows to reflect the comment (changes indicated are against Draft Permit):

The permittee shall coordinate with DC Water to implement an effective response plan protocol for overflows of the sanitary sewer system into the MS4. The response ~~plan~~ 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.

Section 4.3.1 of the Final Permit.

- y. Section 4.3.4: WASA notes that the requirement that the Permittee use pesticides only if monitoring indicates they are needed might preclude routinely-scheduled applications pursuant to an Integrated Pest Management (IPM) program.

EPA Response: EPA is unaware of any impacts on IPM programs that would be adversely affected by the Permit requirement that the Permittee use pesticides only if monitoring indicates they are needed. However, if that is the case, the IPM programs should be revised to comply with the Permit (v. allowing unnecessary pesticides in stormwater).

- z. Section 4.3.5: With regard to storm drain system operation and management, and solids and floatables reduction, the Commenter recommends removing a requirement that the

Permittee comply with the Anacostia River Trash TMDL, claiming that it is unnecessary in this portion of the Permit (because it is addressed elsewhere).

EPA Response: While Section 4.10.1 of the Final Permit does address the need for implementation of the Anacostia Trash TMDL, Section 4.3.5 accomplishes something different: it expands the underlying technologies and other activities developed as part of the TMDL across the entire DC MS4 Permit Area, not just the Anacostia River Watershed. EPA believes that this requirement is appropriate, achievable and protective of water quality, and has thus left it in the Final Permit.

- aa. Section 4.3.6: As to streets, alleys, roadways and sidewalks, the Commenter recommends that the Permit require a cleaning schedule with the annual implementation plan, rather than annual catch basin cleanings.

EPA Response: Section 4.3.6.1, Table 3, of the Final Permit contains a schedule for street sweeping, including the newly-added requirement of twice monthly sweeping from March through October for environmental hot spots in the Anacostia River Watershed. In addition, the Final Permit expands Section 4.3.5.3 (Storm Drain System Operation and Management and Solids and Floatables Reduction), including a requirement to complete, public notice and submit to EPA for 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.

- bb. Section 4.3.7.3: With regard to recordkeeping and tracking of inspections and maintenance at municipal facilities, the Commenter suggests striking the requirement that “[a]ny residual water following infrastructure maintenance shall be self-contained and disposed of legally in accordance with the Clean Water Act.”

EPA Response: The Commenter provides no support for its recommendation, other than to indicate that the language is “unclear and likely should be deleted.” EPA notes that DC DOE did not raise an objection to the language, and the Agency believes that the current practice of self-containment and disclosure of residual wash water is appropriate to continue in order to meet water quality objectives.

- cc. Section 4.3.9: The Commenter suggests revising the section on Emergency Procedures to “allow preventive maintenance ahead of an upset condition” or to remove it altogether.

EPA Response: The federal regulation on “upsets,” 40 C.F.R. § 122.41(n), defines the term as “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.” (The Final Permit includes the same definition at Section 9). If the Permit were to be revised to add preventive maintenance to the instances covered by emergency procedures, it would become inappropriately less stringent than the federal regulation. EPA therefore declines to make the requested change.

- dd. Section 4.3.10: For the section on municipal officer training, the Commenter suggests adding a reference to “appropriate individuals.”

EPA Response: Commenter’s suggestion would be redundant; the first sentence of this section indicates that the training program is for “employees whose job functions may impact stormwater program implementation.”

- ee. Section 4.4.2: The Commenter requests that follow-up inspections of commercial facilities based on non-compliance be considered one of the two mandatory inspections, rather than having to wait a minimum of six months between inspections.

EPA Response: EPA appreciates the input and has reflected the suggestion by making the following addition to this section:

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 happen sooner.

- ff. Section 4.4.3: With respect to compliance assurance, the Commenter believes that the requirement for the Permittee to verify that operators are implementing an appropriate control strategy makes the District responsible for discharges from these sources. He suggests that the requirements should be to ensure that these sources are complying with their stormwater management programs, and not that those requirements are sufficient to protect water quality.

EPA Response: EPA disagrees that the Permit requirement for ensuring that operators are implementing an appropriate control strategy makes the District responsible for stormwater discharges from these sources. This responsibility is one of oversight and enforcement, and does not expand the universe of discharges or dischargers covered by this Permit.

- gg. Section 4.6: As to Stormwater Management for Construction Sites, the Commenter suggests revising the requirement that the Permittee monitor the discharge from construction sites for sediment to make such inspections “periodic;” he also notes that the requirement to monitor construction site effluent is a “major task.” In addition, the Commenter suggests that the final paragraph of Section 4.6 be modified to refer to “applicable” TMDL deadlines.

EPA Response: The Draft Permit required the Permittee to ensure compliance enforcement activities at or above the 2008 level. Partially in response to this Comment, EPA has revised the Permit as follows to more clearly articulate the inspection and enforcement responsibilities of the Permittee with regard to construction sites:

[The Permittee shall c]ontinue to implement ~~an~~ inspection and enforcement ~~plan for~~ carrying out 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 ~~objectives~~ project site; and ~~of the~~ SWMP dated February 19, 2009. Maintain
5. Other inspections ~~and~~ as necessary to ensure compliance ~~and enforcement~~ with relevant standards and requirements. ~~activities at or above the 2008 level.~~

Section 4.6.3 of Final Permit (changes indicated are against Draft Permit). As discussed further in Section 4.6 of today's Fact Sheet, this schedule is already consistent with the District's inspection policies and therefore should not result in additional burden.

With respect to the comment that the Permit reference discussion of progress toward meeting "applicable" TMDL deadlines, EPA contends that the listed items are in fact those that contain such applicable deadlines. The requirements are to report progress in each Annual Report as follows: (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. Section 4.6.6 of Final Permit. (Note that the requirement to report on progress toward meeting DC WIP deadlines is an addition to this Permit from the Draft).

- hh. Section 4.7: In the section on Management Plan for Illicit Discharges and Improper Disposal, the Commenter suggests several changes, including modifying paragraph 1.e to refer to the requirements of this Permit, as opposed to the Clean Water Act as written. He also recommends revising paragraph 1.f to delete the statement that the Permittee shall carry out the necessary monitoring activities with the goal of meeting CWA requirements. Moreover, the Commenter requests deleting the requirement in paragraph 1.g that the implementation of this program shall be reported in each of the Annual Reports.

EPA Response: The Final Permit has removed the overly-broad reference to demonstration of compliance with the CWA by modifying this section as follows (now Section 4.7.1.f):

Such a program [for illicit discharges and improper disposal] shall include, at a minimum, the following: . . . ~~An enforcement plan~~ Enforcement procedures for illicit discharges set forth in Part 4 herein. ~~The Permittee shall provide a justification for the~~

~~control plan in the Annual Report in demonstrating its compliance with the requirements of the Clean Water Act.~~

The Permit has also been revised to remove the requirement that the Permittee carry out monitoring activities with the goal of meeting CWA requirements.

All necessary inspection, surveillance, and monitoring procedures to remedy and prevent illicit discharges. ~~The Permittee shall carry out the necessary monitoring activities with the goal of meeting the requirements of the Clean Water Act.~~ The Permittee shall submit an inspection schedule, plan, inspection criteria, ~~and~~ documentation regarding protocols and parameters of field screening, and allocation of resources as a part of each Annual Report.

Final Permit at Section 4.7.1.g. This modification is appropriate because outfall screening is required by other provisions in the Permit, including Sections 4.3.5.3, 4.7.1.b and 5.4.

As to the paragraph on spills in this section (Paragraph 4.7.1.g), EPA has made the requested change: the Final Permit deletes the requirement that implementation of this program be reported in each Annual Report, since that provision was duplicative with another section immediately below it.

- ii. Section 4.8: For flood control projects, the Commenter recommends deleting the following provision from the requirement that the Permittee assess potential impacts on water quality: “In addition, submit the flood control measures necessary to meet the requirements of the Clean Water Act with these Reports/Plans.” Further, the Commenter would like the language requiring data collection on impervious cover modified so that the requirement begins six months after the effective date of this Permit. (The Draft Permit had simply indicated that the requirement was “after the effective date.”) Finally, the Commenter recommends removal of a requirement that the Permittee explain how the implementation of procedures would be used to meet CWA requirements.

EPA Response: All requested changes have been made.

- jj. Section 4.9: The Commenter suggests editing the Permit language to indicate that the outreach program be designed to *improve* the target audiences’ understanding of stormwater rather than *achieve measurable improvement* in the understanding of stormwater.

EPA Response: The goal of the education and outreach component of the SWMP is to improve District residents’ understanding of stormwater effects and how they can reduce their impacts; therefore, this is what must be measured in order to demonstrate compliance with the related provisions.

- kk. Section 5.2.3: The Commenter requests modifying the paragraph on sample collection by replacing a requirement that samples be taken in each hour of discharge for the entire

discharge with “representative grab” requirement, and adding that minimum separation period should occur “whenever possible.”

EPA Response: The Draft Permit appropriately describes the methodology for wet weather monitoring and is consistent with 40 C.F.R. § 122.21(g)(7)(ii). Therefore, EPA has not made any changes to this language at Section 5.2.3 (Sample Type, Collection, and Analysis). In any event, this requirement is part of the Interim Monitoring Program, which EPA has chosen not to modify for the Final Permit simply because the provisions are largely an extension of the same requirements and methods already approved and established under prior permits. *See* Section 5.2 of today’s Fact Sheet for additional explanation. EPA encourages the Commenter to provide input as the District develops its Revised Monitoring Program.

- ll. Section 5.10: For retention of monitoring information, the Commenter suggests that such information be retained for three years (as opposed to five, as required by the Draft Permit), and that it be retained from the date of the sample, measurement or report (as opposed to from the expiration date of this Permit, as required by the Draft Permit).

EPA Response: The Commenter relies on 40 C.F.R. § 122.41(j)(2) in support of its request to change the retention period for monitoring information. However, that provision also provides that the Permit must require a period of “at least 3 years” for retention of monitoring information, and that the period “may be extended by request of the Director at any time.” Because the District’s stormwater management program is continually evolving, and because of the importance of this program nationally, EPA has determined that a five-year retention period is appropriate for at least the current Permit cycle.

To the extent that the Commenter requests that the information be retained from the date of the sample, measurement or report, that change has been made. The Permit language has been revised as follows:

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 ~~expiration-date-of this Permit~~.

Final Permit at Section 5.9 (Retention of Monitoring Information).

- mm. Section 6: The Commenter notes that TMDL reporting required by Table 5 in the Draft Permit (Permit Deliverables) is rolled into the Annual Report requirement.

EPA Response: The Commenter does not explain his concern, but to the extent he may have been addressing perceived duplicative reporting requirements, EPA notes that Table 6 of the Final Permit (Permit Deliverables, Table 5 of the Draft Permit) has been revised to require only three items: Outfall DMR, Annual Report, and MS4 Permit Application. In the Draft Permit, the Table also included “Annual Report/Implementation Plan (Consolidated).” Additionally, EPA notes that TMDL Implementation Plan requirements, including reporting, have been moved

to Section 4.10.3 of the Final Permit so that the Final Permit does not contain duplicative reporting requirements.

- nn. Section 6.2.1.d: The Commenter recommends replacing “notwithstanding” prior to statute list with “subject to,” and notes that neither EPA nor the District can ignore these statutory limitations.

EPA Response: EPA has made the requested change in the Final Permit.

- oo. Section 6.2.4: As to signature and certification, the Commenter recommends deleting the requirement that the Permittee include a statement or resolution that the Permittee’s governing body or agency has reviewed submissions.

EPA Response: EPA first notes that it has revised the Permit to require that deliverables be signed in accordance with 40 C.F.R. § 122.22(b) (“All reports required by Permits, and other information requested by the Director shall be signed by a person described in paragraph (a) of this section. . .”), as opposed to being consistent with the Permit itself. However, EPA has declined to make the requested change because of the importance of review at high levels of District Government to ensure that appropriate checks and balances have occurred. (Note that this provision has been moved to Section 6.2.3 of the Final Permit.)

- pp. Section 6.2.6: The Commenter suggests deleting language which both describes EPA’s authority to revise District submittals and to require the District to comply with the revisions. In addition, the Commenter recommends adding language which allows deadlines tied to the approval of a previous submittal to be extended if EPA does not approve the submittal within 60 days.

EPA Response: The Commenter did not explain its rationale for the recommendation, and DC DOE has not indicated that the draft language on EPA approval would be in any way problematic, so EPA has declined to make this change.

- qq. Section 8.1.1: The Commenter recommends inserting a provision that TMDL WLA compliance is a “goal,” and that compliance with TMDL WLAs is achieved through the implementation of BMPs to the MEP.

EPA Response: Initially, EPA notes that it has rewritten the Permit to move the provisions of Section 8 of the Draft Permit (Other Applicable Provisions) to Section 4.10 of the Final Permit (Total Maximum Daily Load (TMDL) Wasteload Allocation (WLA) Planning and Implementation). As to the Commenter’s suggestions, the Agency has declined to make the first change, since TMDL WLA compliance is a requirement and not simply a goal. With regard to the Commenter’s request to include a provision on TMDL WLA compliance, the Commenter is referred to Section 1.4 of the Final 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.”).

- rr. Section 8.1.3 (paragraphs A – D): The Commenter suggests deleting language referring to interim compliance deadlines for achieving WLAs, and replacing it with a requirement to provide an estimated date for achieving compliance with WLAs using an iterative program of BMPs to the MEP. The Commenter also recommends that the requirement for the TMDL Implementation Plan include an “estimated” percentage of pollutant load reductions “anticipated to be” specified in the implementation plan, as opposed to an “interim compliance deadline for achieving” such reductions.

EPA Response: Section 4.10.3 of the Final Permit (formerly Section 8.1.3) requires compliance schedules for both interim milestones and final attainment; it is not one or the other. Using applicable EPA Guidance, the permit has been revised to include interim compliance deadlines and numeric milestones for achieving the TMDL WLA. See “Revisions to the November 22, 2002 Memorandum ‘Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Stormwater Sources and NPDES Permit Requirements Based on Those WLAs’” (November 12, 2010) (available at: http://www.epa.gov/npdes/pubs/establishingtmdlwla_revision.pdf). This approach is being taken as a result of the increased knowledge and development in stormwater control techniques within the District and will enable better monitoring and tracking toward compliance.

As to the request that the Permit require an iterative program of BMPS “to the maximum extent practicable,” the Final Permit does not contain reference to the MEP standard. Rather, the Fact Sheet supporting the Permit has been revised to more clearly demonstrate how the Permit requirements are expected to represent a reduction of pollutants to the MEP. At the same time, EPA notes that the Permit continues to allow the Permittee flexibility to decide how it will meet the WLAs.

Finally, with respect to the Commenter’s request that the Permit specify an estimated percentage of pollutant load reductions, the language in the permit does not preclude this. If the District feels that it would be appropriate to include the estimated percentage of pollutant load reductions that it anticipates, it can certainly provide such information. However, EPA notes that WLAs are typically expressed as loads (i.e., not percentages); therefore, it would be advisable to express the interim milestones this way.

- ss. Section 8.1.3 (paragraph E): The Commenter suggests revising a provision of the Draft Permit on demonstration of WLA achievement as follows: “If an annual evaluation of monitoring data indicates that these practices are insufficient progress towards meeting WLA, the Permittee shall adjust its management program accordingly ~~towards meeting the water quality standards and appropriate TMDLs.~~”

EPA Response: In response to the Comment, EPA has clarified the Final Permit by including the following provision in place of the one described above (and moving it to Section 4.10 of the Final Permit (Total Maximum Daily Load (TMDL) Wasteload Allocation (WLA) Planning and Implementation):

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 meeting any WLA covered in 4.10.1, 4.10.2 or 4.10.3, the permittee shall adjust its management programs to compensate for the inadequate progress 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.

- tt. Section 9.6: As to retention of records, the Commenter suggests revising the retention period from five years from the expiration date of the Permit to three years from the date of the sample, measurement, report, or application.

EPA Response: Pursuant to 40 C.F.R. § 122.41(j)(2), the records retention requirement for records and reports required by the Permit is “at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.” Because the District’s stormwater management program is continually evolving, and because of the importance of this permit nationally, EPA has determined that a five-year retention period is appropriate for at least the current Permit cycle, and has thus declined to make the proposed change. (Relevant language is now at Section 8.6 of Final Permit.)

- uu. Section 9.17: The Commenter proposes deleting this section, which addresses bypasses.

EPA Response: This provision is a standard condition required to be placed in all NPDES Permits, pursuant to 40 C.F.R. § 122.21. Because MS4 Permits such as the one issued to the District are within the category of NPDES Permits, those general regulations apply to this and other MS4 Permits. Note that the provision has been moved to Section 8.17 of the Final Permit.

- vv. Definitions: The Commenter indicates that the Permit should define development and redevelopment to exclude utility repairs, maintenance, or associated activities.

EPA Response: While the Permit is silent as to utility repairs, EPA does not believe that a waiver for development standards for utility maintenance and repair activities is appropriate. In fact, operation and maintenance of municipal operations and related activities are specifically covered by the federal regulations, 40 C.F.R. § 122.26(d)(2)(iv)(A), as well as in various Agency guidance documents, *see e.g.*, EPA, *MS4 Permit Improvement Guide* (April, 2010). Therefore, EPA has declined to make the requested change.

13. Earthjustice [representing: Anacostia Riverkeeper, Potomac Riverkeeper, Waterkeeper Alliance, and D.C. Environmental Network], Jennifer Chavez (June 4, 2010).

- a. The Commenter incorporates comments submitted by Natural Resources Defense Council (NRDC).

EPA Response: See Letter No. 20 responses herein.

- b. The Commenter expresses concern that the Draft Permit provisions do not satisfy the requirement for compliance with water quality standards. Specifically, the Commenter states that “[t]he Permit has no express requirement for the MS4 to achieve reductions needed to meet standards at all, much less by any specified time. Instead, the Region relies on the District—the Permittee—to “manage, implement and enforce a stormwater management program” as the means by which the EPA purports to ensure compliance with WQS, TMDL allocations, and other legal requirements for NPDES Permits.”

EPA response: First, EPA contends that the Permit does require standards attainment. Section 1.4 of the Final Permit provides that the Permittee must “[e]ffectively prohibit pollutants in stormwater discharges or other unauthorized discharges into the MS4 System as necessary to comply with existing District of Columbia Water Quality standards (DCWQS).” If the District does not comply with this requirement, it would be in violation of the Permit. In addition, Section 2.1.1 of the Permit requires the Permittee to have “legal authority to control discharges to and from the [MS4] in order to prevent or reduce the discharge of pollutants to achieve water quality objectives.” Moreover, Section 8.4 (Duty to Mitigate) provides that “[i]n 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. . . .” And Section 8.19 of the Permit allows it to be reopened for a number of reasons, including, *inter alia*, “[t]o 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.”

Second, EPA acknowledges that such standards attainment may not occur in its entirety during this Permit cycle. This is consistent with EPA’s Phase II Stormwater Final Rule, *National Pollutant Discharge Elimination System--Regulations for Revision of the Water Pollution Control Program Addressing Stormwater Discharge*, 64 Fed. Reg. 68722, 68731 (Dec. 8, 1999) (available at: http://cfpub.epa.gov/npdes/regresult.cfm?program_id=6&type=1&sort=name&view=all) (“At this time, EPA determines that water quality-based controls, implemented through the iterative processes described today are appropriate for the control of such pollutants and will result in reasonable further progress towards attainment of water quality standards. See Sections II.L and II.H.3 of the preamble.”); *id.* at 68753 (“EPA envisions application of the MEP standard as an iterative process.”); *id.* at 68754 (“EPA also believes the iterative approach toward attainment of water quality standards represents a reasonable interpretation of CWA section 402(p)(3)(B)(iii).”).

- c. The Commenter states that the Region cannot presume, without supporting evidence, that the effluent limitations expressed in the Permit are based on compliance with the District of Columbia’s water quality standards in accordance with the Clean Water Act. Nor does the Commenter believe that it is lawful for the Region to presume without supporting evidence that discharges controlled in accordance with the standards for development shall be considered to be as stringent as necessary to ensure that the discharges do not cause or contribute to an excursion above: (1) any applicable TMDL WLAs; or (2) DC WQS. Finally, the Commenter indicates that it is unlawful for the Region to presume, without supporting evidence, that compliance with all performance standards and

provisions contained in this Permit shall constitute progress toward compliance with DCWQS.

EPA Response: Initially, the Commenter is referred to today's Fact Sheet, which clearly explains EPA's rationale for presuming that compliance with the performance standards and provisions contained in Parts 2 through 8 of the Permit will constitute adequate progress toward compliance with DCWQS and WLAs for this Permit term. At the same time, the Agency has also determined that it is appropriate to allow the District the necessary flexibility to achieve compliance with water quality standards while implementing the controls that are most conducive to achieving other municipal goals. Therefore, EPA has for each Permit requirement determined whether the Final Permit should either contain a prescriptive requirement/performance standard, or whether the District is in the best position to make such determinations. See today's Fact Sheet for additional discussion.

The Commenter is also referred to certain requirements in the Final Permit regarding the Annual Report (Section 6.2.1), including the following, which ensure that EPA is kept apprised of progress related to the District's stormwater program:

- 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 of the Permit
- A review of monitoring data and any trends in estimated cumulative annual pollutant loadings, including TMDL WLAs and TMDL implementation activities
- An assessment of the effectiveness of controls established by the SWMP
- Identification of water quality improvements or degradation through application of a measurable performance standard as stated throughout this Permit
- Results of storm and water quality modeling and its use in planning installation of control systems and maintenance and other activities
- The amount of impervious cover within the District, and within the three major watersheds in the District (Anacostia, Potomac and Rock Creek)
- 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 standards in 4.1.1 of the Permit

The Permittee's failure to meet these (or other Annual Report-related) requirements would constitute a violation of the Permit. Also, as described further in section 6.2 of the Fact Sheet, these requirements—when properly implemented—have all been shown through modeling and practice to assist communities in attaining water quality standards. If these amounts reported in the Annual Report are not met, not only is it a violation of the Permit, but a violation of water quality standards as well. Thus, the Annual Report is supporting evidence of whether or not water quality standards are being met, and since the underlying information is based on Permit requirements are, there is an element of accountability by the Permittee to meet such requirements—in turn attaining water quality standards.

- d. The Commenter states that “the Region must impose clear and specific conditions that, when implemented will achieve water quality standards” and that “the Permit is plagued by vague and unclear requirements that are certain to produce little to nothing in the way of concrete reductions.”

EPA response: EPA has revised the Permit to ensure additional clear and specific conditions that will result in improved water quality. *See e.g.*, Sections 4.1.1 (Standard for Stormwater Discharges from Development); 4.1.5 (Retrofit Program for Existing Discharges); 4.1.6 (Tree Canopy); 4.1.7 (Green Roof Projects); and 4.3.6 (Streets, Alleys and Roadways). At the same time, the Agency has also determined that it is appropriate to allow the District the necessary flexibility to achieve compliance with water quality standards while implementing the controls that are most conducive to achieving other municipal goals. Therefore, EPA has for each Permit requirement determined whether the Final Permit should either contain a prescriptive requirement/performance standard, or whether the District is in the best position to make such determinations. *See* today’s Fact Sheet for additional discussion.

By way of further example, Section 4.10.1 of the Final Permit requires the Permittee to “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.” In contrast, the Draft Permit simply required the Permittee to reduce trash volume (and report thereon), and develop and implement Anacostia River Trash TMDL Implementation Plan.

Also, the Final Permit incorporates certain numeric performance standards that are driven by the Chesapeake Bay TMDL, and which are expected to reduce quantities of nitrogen, phosphorus, and sediment from the District of Columbia (as well as other Bay jurisdictions). As background to these anticipated reductions, EPA notes that each Bay jurisdiction developed a Watershed Implementation Plan (WIP) to identify how it intends to meet the reductions called for in the TMDL. The District’s Final Phase I WIP, *Chesapeake Bay TMDL Watershed Implementation Plan District of Columbia Department of the Environment* (November 29, 2010) (available at: http://ddoe.dc.gov/ddoe/frames.asp?doc=/ddoe/lib/ddoe/tmdl/Final_District_of_Columbia_WIP_Bay_TMDL.pdf) (DC WIP), specifically anticipates reductions of nitrogen, phosphorus, and sediment contributions to the Bay by 11, 27, and 26 percent, respectively, by relying on the following District commitments:

- Install at least 350,000 sq ft of green roofs over the Permit cycle on District property
- Plant at least 4,150 trees annually with a goal of planting and maintaining 13,500 additional trees by 2014 and increasing its tree canopy from 35% to 40% by 2035
- Insure that all development greater than 5,000 sq ft retain stormwater generated from a 1.2” 24-hour storm
- Promotion of low-impact development

Section 7.2 of DC WIP. Currently, the District and other Bay jurisdictions are working on their Phase II WIPs. EPA notes that the Final Permit includes a reopener clause (Section 8.19) that allows it to be reopened for a number of reasons, including, *inter alia*, “[t]o 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.”

- e. The Commenter states that “the Region has not even attempted to incorporate the “maximum extent practicable” (“MEP”) standard into the Permit. Because the Region’s Permits action must be supposed by record evidence and a reasoned explanation, the failure to demonstrate compliance with the MEP standard is arbitrary and capricious and not in accordance with the CWA § 402(p), 33 U.S.C. § 1342(p).”

EPA response: The Final Permit does not contain reference to the MEP standard. Rather, the Fact Sheet supporting the Permit has been revised to more clearly demonstrate how the Permit requirements are expected to represent a reduction of pollutants to the MEP.

- f. The Commenter believes that EPA should explicitly require the MS4 to achieve the pollution reductions necessary to comply with TMDL loads that have been allocated to the DC MS4 system. Further, Commenter suggests that WLAs must be incorporated as numeric effluent limitations in the Permit itself, since the Draft Permit does not require actual attainment of WLAs in the stormwater management program, and the Region has not supplied a basis for concluding that the District’s program will, in fact, achieve reductions needed to meet applicable WLAs. The Commenter states, “[i]t is also not sufficient for the Permit to rely on the District to implement a stormwater management plan that is ‘consistent with applicable wasteload allocations (WLAs) for each approved Total Maximum Daily Load (TMDL) for each receiving water body.’”

EPA response: With regard to being consistent with WLAs and TMDLs, see response to comment “c” above, the response to which is incorporated here by reference. As to achievement of reductions to attain applicable WLAs, Section 1.4.2 of the Final Permit has been revised to require that discharges ‘attain’ applicable wasteload allocations rather than just ‘be consistent’ with them. Also, Section 4.10.3 of the Final Permit requires that the District develop, public notice, and submit to EPA for review and approval a consolidated TMDL Implementation Plan including:

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; and
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.

Also, the Permit provides protection in the event that the Permittee makes insufficient progress toward attaining any WLA:

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.

Final Permit at Section 4.10.4. With the foregoing provisions in the Final Permit, EPA believes that the District's stormwater management program will achieve the reductions needed to attain applicable WLAs. If such reductions are not met, it is a violation of the Permit. As such, the Final Permit is also consistent with EPA policy, *see e.g.*, "Revisions to the November 22, 2002 Memorandum 'Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Stormwater Sources and NPDES Permit Requirements Based on Those WLAs'" (November 12, 2010) (available at: http://www.epa.gov/npdes/pubs/establishingtmdlwla_revision.pdf).

- g. The Commenter believes that the Permit violates anti-backsliding requirements of the CWA, since a previous iteration of the Permit contained an aggregate numeric effluent limit for four outfalls into Hickey Run but it now lacks any numeric effluent limits on discharges from any MS4 outfalls, including those that discharge into Hickey Run. The Commenter suggests that the Final Permit must restore numeric effluent limits for Hickey Run that are at least as stringent as the prior version of the Permit.

EPA Response: The prohibition against backsliding is contained in 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."). The Commenter implies that a Permit that replaces a numeric effluent limit with a non-numeric one is somehow automatically less stringent on that parameter. However, the narrative requirement only violates the anti-backsliding prohibition if the two provisions are comparable. *See e.g., Communities for a Better Environment v. State Water Resources Control Bd.*, 132 Cal. App. 4th 1313 (August 29, 2005) (performance-based and water quality-based limits not comparable for purposes of anti-backsliding analysis). In this case, the two provisions are not comparable: EPA has determined that compliance with the performance standards in the Final Permit will result in more water quality protections for the DC MS4's receiving streams than did the previous aggregate numeric limit. EPA also notes that monitoring on Hickey Run indicates that the stream may no longer be impaired for oil and grease. EPA has retained provisions in the Final Permit for additional control measures in Hickey Run in the event additional monitoring indicates they are necessary. However, EPA believes it equally likely that monitoring this permit term may confirm that stormwater discharges to this water body no longer cause or contribute to exceedances of water quality standards for oil and grease.

- h. The Commenter believes that the Permit relies heavily on programs and plans that will be developed by the District after the Permit is issued and outside of the public notice and comment procedures for the MS4 Permit. The Commenter suggests that this violates notice and comment requirements because those plans and programs will not have been submitted to public scrutiny. Further, the Commenter argues that the Region must specify that any modifications to the Permit are subject to public notice and comment procedures.

EPA Response: The Final Permit contains robust opportunities for public participation. For example, Section 2.3.2 of the Final Permit (Stormwater Management Program Administration/Permittee Responsibilities), lists one of DDOE's major responsibilities as "[m]aking available to the public and other interested and affected parties, the opportunity to comment on the MS4 stormwater management program." The Permit contains many other examples of public participation requirements, including, *inter alia*, provisions for development of off-site mitigation/fee-in lieu, retrofit, tree canopy, and storm drain system operation, and reduction programs for solids and floatables. *See* Sections 4.1.3, 4.1.5, 4.1.6, and 4.3.5, respectively.

By way of additional examples of public notification requirements, the Final Permit increases public participation aspects of the Permit, in part by including TMDL WLA Implementation as part of the District's overall Stormwater Management Plan (SWMP) (moved from Section 8.1 of Draft Permit ("Other Applicable Provisions—WQS and TMDL WLA Implementation Plans and Compliance Monitoring") to Section 4.10 of Final Permit ("Total Maximum Daily Load (TMDL) Wasteload Allocation (WLA) Planning and Implementation")). The Permit also requires the Permittee to "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." Section 4.9.4.3 of Final Permit. *See also* Sections 4.9.4.1 (requirement to create opportunities for the public to participate in the decision making processes involving the implementation and update of the Permittee's SWMP); 4.9.4.2 (requirement to 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); 4.9.4.3 (requirement to make all draft and approved MS4 documents required under the permit available for public comment and to be posted on the District's website)¹⁸; 4.9.4.4 (requirement to continue to develop public educational and participation materials in cooperation and coordination with other agencies and organizations in the District); and 4.9.4.5 (requirement to periodically, and at least annually, update its website).

¹⁸ The Permit contains additional requirements for website posting: Section 3 (Current SWMP shall be posted on the District's website at an easily accessible location at all times); Section 6.2 ("The permittee shall submit an Annual Report to EPA on 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.").

Also, the Final Permit (Section 4.9.1.2) has requirements to reach specific public interest groups, including but not limited to, the general public (including home-based and mobile businesses); homeowners, landscapers and property managers; and engineers, contractors, developers, review staff, and land use planners.

Finally, EPA notes that the Permit allows Permit modification pursuant to 40 C.F.R. § 122.62, and that—unless such changes are “minor”—a Draft Permit must be prepared and other procedures in part 124 followed. This provision also ensures that the public would have an opportunity to participate in any changes to the Permit.

14. Friends of Rock Creek’s Environment (FORCE), Beth Mullin (June 4, 2010).

- a. The Commenter believes that the Draft Permit needs greater specificity that can be measured, monitored, and enforced, and that the Final Permit should set forth strong and meaningful standards and deadlines for realistic fulfillment of its generally stated goals. She provides examples of such requirements for green infrastructure projects, including a request for: benchmarks for tree plantings; a targeted square footage of green roofs; stronger on-site retention standards for new development and redevelopment projects; and specific numeric requirements for new storm drain screens and trash traps.

EPA Response: EPA agrees that enforceability of the Permit is important, and has thus revised the Permit to impose additional clear and specific conditions that will result in improved water quality. *See e.g.*, Sections 4.1.1 (Standards for Stormwater Discharged from Development); 4.1.5 (Retrofit Program for Existing Discharges); 4.1.6 (Tree Canopy); 4.1.7 (Green Roof Projects); and 4.3.6 (Streets, Alleys and Roadways). Today’s Fact Sheet also discusses the greater enforceability anticipated through the Final Permit. At the same time, the Agency has also determined that it is appropriate to allow the District the necessary flexibility to achieve compliance with water quality standards while implementing the controls that are most conducive to achieving other municipal goals. Therefore, EPA has for each Permit requirement determined whether the Final Permit should either contain a prescriptive requirement/performance standard, or whether the District is in the best position to make such determinations. *See* today’s Fact Sheet for additional discussion.

- b. The Commenter indicates that the Permit must fully incorporate existing and future TMDLs and waste load allocations.

EPA Response: The Final Permit incorporates all TMDL WLAs applicable to the DC MS4 as of the effective date of the Permit, including the Anacostia River Watershed Trash TMDL Implementation (Section 4.10.1) and Hickey Run TMDL Implementation (Section 4.10.2), as well as all other “TMDL wasteload allocations assigned to District MS4 discharges.” (This would include, *inter alia*, Chesapeake Bay TMDL WLAs). Section 4.10.3. As to future TMDLs and wasteload allocations, the Permit provides that “[f]or any new 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.” *Id.* Also, the Final Permit includes a reopener clause (Section 8.19) to

ensure that the Permit can be amended as necessary to maintain consistency with future TMDL WLAs that are allocated to the discharge of pollutants from the MS4 during the Permit cycle.

c. The Commenter requests that the Permit include sound monitoring plans.

EPA Response: As discussed in greater detail at Section 5.1 of today's Fact Sheet, the monitoring requirements for the District's stormwater program have been significantly updated and improved 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. Among other requirements, the District's revised monitoring program must meet a number of important objectives, including: (1) making wet weather loading estimates; (2) evaluating the health of the receiving waters, to include biological and physical indicators; and (3) performing any additional necessary monitoring for purposes of source identification and wasteload allocation tracking. Final Permit at Section 5.1.1.

d. The Commenter states that meaningful public participation should be sought and considered throughout the Permit implementation.

EPA Response: The Final Permit contains robust opportunities for public participation. For example, Section 2.3.2 of the Final Permit (Stormwater Management Program Administration/Permittee Responsibilities), lists one of DDOE's major responsibilities as "[m]aking available to the public and other interested and affected parties, the opportunity to comment on the MS4 stormwater management program." The Permit contains many other examples of public participation requirements, including, *inter alia*, provisions for development of off-site mitigation/fee-in lieu, retrofit, tree canopy, and storm drain system operation. and management/solids and floatables reduction programs also include such requirements. See Sections 4.1.3, 4.1.5, 4.1.6, and 4.3.5, respectively.

By way of additional examples of public notification requirements, the Final Permit increases public participation aspects of the Permit, in part by including TMDL WLA Implementation as part of the District's overall Stormwater Management Plan (SWMP) (moved from Section 8.1 of Draft Permit ("Other Applicable Provisions -- WQS and TMDL WLA Implementation Plans and Compliance Monitoring") to Section 4.10 of Final Permit ("Total Maximum Daily Load (TMDL) Wasteload Allocation (WLA) Planning and Implementation")). The Permit also requires the Permittee to "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." Section 4.9.4.3 of Final Permit. See also Sections 4.9.4.1 (requirement to create opportunities for the public to participate in the decision making processes involving the implementation and update of the Permittee's SWMP); 4.9.4.2 (requirement to 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); 4.9.4.3 (requirement to make all draft and approved MS4 documents required under the permit available for public comment and to be posted on the

District's website)¹⁹; 4.9.4.4 (requirement to continue to develop public educational and participation materials in cooperation and coordination with other agencies and organizations in the District); and 4.9.4.5 (requirement to periodically, and at least annually, update its website).

Also, the Final Permit (Section 4.9.1.2) has requirements to reach specific public interest groups, including but not limited to, the general public (including home-based and mobile businesses); homeowners, landscapers and property managers; and engineers, contractors, developers, review staff, and land use planners.

Finally, EPA notes that the Permit allows modification pursuant to 40 C.F.R. § 122.62, and that -- unless such changes are "minor" -- a Draft Permit must be prepared and other procedures in part 124 followed. This provision also ensures that the public would have an opportunity to participate in any changes to the Permit.

15. Licsko Z. John (June 4, 2010).

- a. The Commenter asks what the recurrence interval for the 24-hour storm is in the area covered by the Permit.

EPA Response: The recurrence interval for the one-year, 24-hour storm in Washington DC is approximately 2.5 inches. A rainfall of 1.2 inches is approximately equal to the one-year, one-hour storm. A map of the one-year, 24-hour storm in the District is available from the following source: National Oceanic and Atmospheric Administration, *Delaware, District of Columbia, Maryland, Virginia, West Virginia: Isopluvials of 60 minute precipitation (inches) 0 10 20 30 40 50 with Average Recurrence Interval of 1 year* (August 2006) (available at: ftp://hdsc.nws.noaa.gov/pub/hdsc/data/orb/na14orbv3_val1y60m.pdf).

- b. The Commenter suggests that annual loading estimates for pollutants should be based on the hydrologic cycle, and not the calendar year, and should include a statistically representative estimate of annual pollutants loads that considers the pollutant load from both storm events as well as base flow conditions. The reporting of these loading estimates needs to include a reference to a background or reference loading estimate (*i.e.*, a predevelopment condition that assumes a meadow condition.)

EPA Response: Section 5.1 of the Final Permit requires the District to develop a revised monitoring program within one year of Permit issuance. The District is required to public notice this revised program. EPA encourages the Commenter to participate in this process.

¹⁹ The Permit contains additional requirements for website posting: Section 3 (Current SWMP shall be posted on the District's website at an easily accessible location at all times); Section 6.2 ("The permittee shall submit an Annual Report to EPA on 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.").

- c. The Commenter asserts that an assessment of the biological health of a system needs to include not only a biological or physical assessment of a site's health relative to a reference condition, but a consideration of the biological integrity of the sampling site which includes its biological connectivity to downstream aquatic habitats, the health, extent and connectivity of riparian habitat, the effects of hydrologic alterations, the effects of changes in the quality and availability organic matter in the stream, the effects of shading and temperature, as well biological fragmentation (*i.e.*, absence or over abundance of predators or competing evasive species).

EPA Response: Section 5.1 of the Final Permit requires the District to develop a revised monitoring program within one year of Permit issuance. The District is required to public notice this revised program. EPA encourages the Commenter to participate in this process.

- d. The Commenter asks for what time frames must the "event mean concentrations" be reported.

EPA Response: The Final Permit provides that: "[t]he 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." Section 5.1.2 of Final Permit.

- e. The Commenter suggests that the interception of rainfall by a mature tree canopy will not provide water quality benefits. A reduction in runoff volume due to interception will only result in an increase in the concentration of pollutants in runoff, when it does occur. In fact, while there may be other benefits, an increase in tree canopy will likely result in a higher annual loading for pollutants such as total phosphorus, nitrogen, and total suspended solids.

EPA Response: Section 4.1.6 of today's Fact Sheet contains a discussion of the benefits of tree planting, and provides substantial literature support for that requirement in the Permit. EPA also notes that the Final Permit includes a requirement for the District to public-notice its tree-planting strategy. EPA encourages the Commenter to participate in this process.

- f. The Commenter questions how the performance standard for green roofs will be related to water quality improvements.

EPA Response: See Section 4.1.7 of today's Fact Sheet for a discussion of the benefits of green roofs, and literature support therefor. For example, one EPA study found that green roofs are capable of removing 50 percent of the annual rainfall volume from a roof through retention and evapotranspiration.²⁰

²⁰ EPA, *Green Roofs for Stormwater Control*. EPA/600/R-09/026. February 2009 (available at: <http://www.epa.gov/nrmrl/pubs/600r09026/600r09026.pdf>).

- g. The Commenter indicates that an evaluation of the appropriateness of the application loading rates as well the types of pesticides used by commercial applicators in an urban environment needs to be completed. Pesticide loading rates based on agriculture uses are not necessarily appropriate in an urban setting. The evaluation also needs to include a review of the risks versus the benefits of pesticide being used.

EPA Response: Section 4.3.4 of the Final Permit requires that the District only use pesticides if monitoring indicates a need and according to established guidelines according to an integrated pest management program (IPM) approach. The Permit also contains additional requirements to ensure that pesticide and fertilizer use within the DC MS4 Permit Area do not threaten water quality. These requirements are intended to ensure that application rates appropriate to the target organism and weather are used.

- h. The Commenter questions what level of non-compliance with stormwater controls will be considered acceptable.

EPA Response: The Final Permit requires the District to meet various performance standards, compliance schedules, and benchmarks. Not meeting these requirements constitutes a permit violation.

- i. The Commenter questions how the proposed sampling schedule (Section 5.2.3) supports the development of annual event mean concentration (EMC) value for the monitoring parameters in Table 3?

EPA Response: To support the current and projected sampling schedule for the current and proposed monitoring parameters, the annual pollutant loads for each watershed (Anacostia, Rock Creek, and Potomac) sampled were calculated using the Simple Method (EPA, 1992) utilizing the wet weather EMCs, the total drainage area, and land use distribution within each sewershed. The Simple Method equation also applies a dimensionless correction factor to adjust for storms where no runoff occurs, a dimensionless runoff coefficient for the land use type, and a unit conversion factor for chemical constituents in concentration units of mg/L and for bacteria in units of MPN/100mL to assist with the calculations. The Simple Method can estimate pollutant loads without extensive rainfall-runoff volume data using the sample analysis results available. Generally, the Simple Method is expected to overestimate pollutant loads as compared to more dynamic models that incorporate pollutant concentration and runoff coefficients as functions of initial conditions and rainfall intensity and duration in estimating pollutant loads. The average EMC for each monitoring station was calculated as the geometric mean of the measured EMCs. ASCE/EPA, *Urban Stormwater BMP Performance Monitoring: Guidance Manual* (2002).

- j. The Commenter suggests that storm event data needs to include a summary all rainfall and runoff event occurring during a monitoring year (preferably hydrologic year), not just for sampled events. Without this data it is impossible to assess the representativeness of the samples that are collected.

EPA Response: Section 5.1 of the Final Permit requires that the District solicit public comments when developing the revised monitoring program. EPA encourages the Commenter to

participate in this process. Further, EPA will provide this comment to the District for consideration in developing their revised monitoring program.

16. Maryland-National Capital Building Industry Association, Raquel Montenegro (June 4, 2010).

- a. The Commenter believes that private (*i.e.*, non-federal) developers will be unable to achieve the performance standard contained in Section 4.1.1.a of the Draft Permit unless certain specific characteristics of the District are addressed, such as existing density, limited green space, adjacent building foundations, and existing storm drainage which will limit the ability to use evapotranspiration, infiltration and/or stormwater harvesting and clay soils

EPA Response: EPA refers the Commenter to publications documenting costs *and benefits* of stormwater retention (or green infrastructure) approaches such as *Analysis of the Pollution Reduction Potential of DC Stormwater Standards* (LimnoTech. Inc., July 24, 2009); *Reducing Stormwater Costs through Low Impact Development Strategies and Practices* (EPA, December 2007) (<http://www.epa.gov/owow/NPS/lid/costs07/>); *Economic Costs, Benefits and Achievability of Stormwater Regulations for Construction and Development Activities* (Report to Natural Resources Defense Council and Waterkeeper Alliance, 2008); *Comparison of Environmental Site Design for Stormwater Management for Three Redevelopment Sites in Maryland* (Meliora Environmental Design LLC, 2008); *Cost-Benefit Evaluation of Ecoroofs* (City of Portland, 2008) (<http://www.portlandonline.com/bes/index.cfm?a=261053&c=50818>); *Rooftops to Rivers, Green Strategies for Controlling Stormwater and Combined Sewer Overflows* (Natural Resources Defense Council, June 2006) (<http://www.nrdc.org/water/pollution/rooftops/rooftops.pdf>); *Sustainable Raindrops* (Riverkeeper, 2006) (<http://www.riverkeeper.org/wp-content/uploads/2009/06/Sustainable-Raindrops-Report-1-8-08.pdf>); *A Triple Bottom Line Assessment of Traditional and Green Infrastructure Options for Controlling CSO Events in Philadelphia's Watersheds* (Stratus Consulting, August 24, 2009) (http://www.epa.gov/npdes/pubs/gi_phil_bottomline.pdf); *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 at 4-5* (Richard R. Horner, 2007); and a proliferation of other case studies and reports. In particular EPA emphasizes that these approaches provide enhanced water quality benefits that more traditional approaches typically do not, and that are necessary to meet the water quality objectives of the Clean Water Act.

Further, EPA believes that a number of site constraints can be successfully overcome. For example, clay soils can be amended or replaced. Infiltration can also be supplemented by practices that evapotranspire or harvest rainwater. EPA agrees that there will be some sites where managing this volume of water will be infeasible, and has therefore provided provisions for off-site mitigation and payment-in-lieu (Section 4.1.3).

- b. The Commenter believes that the new standard for new development and redevelopment is a substantial increase, and asks the following questions: What process will be

established to ensure that practices which are utilized to meet the new retention standard will be accepted, approved and adopted (quickly) once proven effective? What allowance will be permitted when the cost of utilizing current environmental site design (ESD) measures places a project under water?

EPA Response: Section 4.9.4.1 of the Final Permit requires that the District “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 its SWMP.” Therefore, the public will be invited to participate in the development of the review and approval process to implement the new performance standards. EPA encourages the Commenter to participate in this process.

- c. The Commenter suggests that the retention standard for new development and redevelopment include a 10-percent degree of tolerance so that the post-development runoff does not have to match the predevelopment exactly.

EPA Response: EPA believes that it is better to have very specific standards that are enforceable, and then a process (Section 4.1.3) that provides for exceptions when they are individually warranted, rather than an unconditional ‘bye’ for all projects, some of which may not warrant it.

- d. The Commenter generally supports the notions of an off-site mitigation and fee-in-lieu program, but expresses a concern that opportunities to provide off-site mitigation are extremely limited. The Commenter therefore suggests that EPA consider the use of dedicated open space or the use of public facilities for off-site mitigation. Also, the Commenter believes that the mitigation program criteria are unclear and lack transparency for both the applicant and the reviewing entity.

EPA Response: Section 4.9.4.1 of the Final Permit requires that the District “continue to create opportunities for the public to participate in the decision making processes involving the implementation and update of the Permittee’s SWMP” Further, Section 4.1.3. specifically requires that the public be involved in the development of the off-site mitigation program (if the District chooses to develop one). Therefore, it is a Permit requirement that the District invite the public to participate in the development of the off-site mitigation and/or fee-in-lieu programs. EPA encourages the Commenter to participate in this process and raise its concerns at that time.

- e. The Commenter believes that if developers rely on the alternative mitigation and fee-in lieu programs (as they will likely do given limitations for on-site mitigation), this will increase the cost of affordable housing undermining the goal of maintaining, or increasing, a diverse population.

EPA Response: EPA is not aware of any information to substantiate the Commenter's claim that required stormwater controls will increase housing prices and reduce the availability of affordable housing.

- f. The Commenter requests that projects “in process” be allowed to continue to comply with existing standards, *i.e.*, “grandfathered.”

EPA Response: The Final Permit requires that the Permittee implement an enforceable mechanism to adopt the new performance standards within 18 months following Permit issuance. Section 4.1.1. Therefore, the performance standards for development will not actually be in place for some time – thus allowing developers to finalize existing projects and at the same time preparing to adopt the standard for new projects.

- g. The Commenter asks how the the new performance standards for new development and redevelopment will affect projects with an individual Permit granted by EPA for District projects.

EPA Response: Permittees (including the District) that have been issued individual Permits by EPA will be expected to comply with those Permits. If a particular activity would be more suited for coverage by the Final Permit, the District can request coverage through a modification or termination process to the existing individual Permit. However, a complete review of such individual Permits is outside the scope of issuance of today's Final Permit.

- h. The Commenter is concerned about the burden that compliance with the Permit will place on the District, both from a fiscal and also from a workforce perspective. Also, the Commenter believes that the U.S. General Accounting Office's decision to dismiss the federal government's obligation to pay the stormwater fee should be "revisited, rethought, and overturned."

EPA Response: EPA is aware that the District relies on the impervious surface assessment as a basis for supporting its compliance with the Permit requirements. However, the scope of this Permit is limited to imposing stormwater controls and effluent limitations on the District as Permittee (see Section 1 of Final Permit); as such, a requirement that a third party pay fees to the Permittee is outside the scope of this Permit. In any event, EPA notes that Senate Bill 3481, which requires the federal government to comply with local stormwater fees that are used to treat and manage polluted stormwater runoff, passed the U.S. Senate and House by unanimous consent on Dec. 21 and Dec. 22, 2010, respectively, and was signed into law by President Obama on January 4, 2011. *A bill to amend the Federal Water Pollution Control Act to clarify Federal responsibility for stormwater pollution*, S. 3481, 111th Congress (2009 - 2010) (available at: <http://thomas.loc.gov/cgi-bin/bdquery/z?d111:S3481>:). On March 14, 2011, the U.S. Government Accountability Office indicated its willingness to pay the fee in light of the recent legislation. See U.S. Government Accountability Office, *Letter re: Public Law 111-378 and Payment of the Stormwater Charge* (March 14, 2011).

17. Minerva, Dana (June 4, 2010).

- a. The Commenter refers to a statement in the draft Fact Sheet (p. 8) that EPA intends the off-site mitigation and fee-in-lieu portions of the Permit to encourage more brownfields development and discourage suburban sprawl. She argues that the statement implies that EPA believes that strong onsite stormwater requirements promote sprawl and requests that it be reworded to indicate that these programs allow development of any type of land,

including infill and Brownfields lands, when full implementation is not practicable because of site conditions.

EPA Response: EPA agrees that requirements for stormwater controls do not generally contribute to sprawl; in fact, most available information demonstrates that the converse is usually true.

- b. The Commenter believes that off-site mitigation should not be promoted unless necessary because of onsite conditions, because in very developed watershed like the Anacostia, it is not clear at all that there is much space available for offsite mitigation.

EPA Response: EPA believes that off-site mitigation is a feasible alternative when off-site locations have adequate capacity. The Final Permit (Section 4.1.3, Off-Site Mitigation and/or Fee-in Lieu for all Facilities) requires that the District public-notice any off-site mitigation and/or fee-in-lieu programs. EPA encourages the Commenter to participate in this process and make her points at that time. The Permit also requires that the Permittee submit the program to EPA for review and comment.

In addition to the foregoing safeguards, EPA notes that the Permit expands the minimum requirements for an off-site mitigation and/or fee-in-lieu program by requiring, among other things, that the program include at a minimum: (1) Establishment of baseline requirements for on-site retention and for mitigation projects; (2) Specific criteria for determining when compliance with the baseline requirement for on-site retention cannot technically be met based on physical site constraints; (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; and (4) The necessary tracking and accounting systems to implement this section, including that original and off-site practices stay in place and are adequately maintained. Section 4.1.3 of Final Permit.

Finally, EPA believes that the transaction costs associated with off-site mitigation and/or fee-in-lieu payments will serve as a sufficient deterrent against developers pursuing these options as a first course.

- c. The Commenter states that adoption of differential post-construction stormwater management standards and extensive waivers for redevelopment would insure that less affluent and diverse populations within the city will experience continued water pollution, and they will experience redevelopment which is less “green” than those who can afford to live in new developments in the District or in Maryland. The Commenter also indicates that if EPA is going to consider policy matters other than the practicability of implementation, it should address another critical policy issue: environmental justice.

EPA Response: The performance standard for all development within the DC MS4 Permit Area is the same regardless of type of development or community affluence and diversity. As to the off-site mitigation/fee-in-lieu programs, the Final Permit does not include a mitigation ratio for these activities. However, as noted in response to the previous comment, the Final Permit does include stringent requirements for these programs, and EPA also anticipates that on-site stormwater retention will be favored as a matter of fact.

- d. The Commenter believes that the Fact Sheet should more clearly identify reports and plans to which it refers, and that the Permit should require that all such plans be made available on the DDOE website.

EPA Response: Section 3 of the Final Permit stipulates “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.” Section 4.9.4.3 also requires that all draft and approved documents required under this Permit be available to the public for comment.

- e. The Commenter states that certain requirements in Section 2 of the Permit (Legal Authority) do not contain actual deadlines, but rather require compliance, *e.g.*, “as soon as possible.”

EPA Response: EPA appreciates the comment, and has reviewed the Permit to ensure that the final revised document replaces narrative requirements with schedules, and adds deadlines where appropriate. For example: Section 2.1.1 (requirement to remedy deficiencies): “as soon as possible” changed to “within two years of effective date”

- f. The Commenter suggests that the Permit not address funding arrangements between MS4 Task Force member agencies.

EPA Response: This section has been deleted from the Final Permit.

- g. The Commenter recommends including the interim compliance deadlines for the TMDL WLAs in the Permit that are referred to in Section 4, since the implementation plans are difficult for the public to obtain.

EPA Response: The Final Permit requires greater public access to relevant plans through a requirement for posting on the District’s website: “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.” *See* Section 3 of the Final Permit.

- h. The Commenter raises a number of issues relating to the following statement in the Draft Permit: “The Permittee mitigation program may allow adjustments to retention standards for redevelopment, high density development, transit-oriented development and other development patterns in non-federal facility areas for which the District can quantify water quality, water quantity, climate change adaptation or other environmental benefits.” (Section 4.1.1.d. of the Draft Permit).

First, the Commenter questions the meaning of some of the terms in the foregoing section. Second, she states that allowing adjustments are allowed only when benefits can be quantified could result in a huge loophole and opens a probably futile debate on an issue that USEPA could quite reasonably refuse to engage in. Third, the Commenter questions how program benefits will be assessed. Fourth, she believes that “the role of the EPA is to implement the Clean Water Act to provide clean water, and there is no exception that says ‘unless EPA decides (or more to the point, the Permittee decides) that some other societal benefit is more important.’” The Commenter recommends that EPA insist on standards for ALL development and redevelopment insure that water quality is protected and restored, except when not practicable because of site conditions. The Commenter goes on to say, however, that if these adjustments are allowed in the Permit, EPA should approve them and the public should be allowed to review/comment.

EPA Response: EPA substantively agrees with this comment and has removed most of the language the commenter objected to. In addition, EPA has added a requirement for DDOE to public-notice the off-site mitigation/fee-in-lieu program, and to submit it to EPA for review and comment.

- i. As to retrofit requirements, the Commenter notes that she is pleased to see a performance standard for this item, but indicates that EPA should review and approve retrofits, and that the public be given an opportunity for review and comment before final.

EPA Response: EPA believes that it is not necessary or feasible for the Agency to review and approve individual retrofit projects proposed in the District; however, the Final Permit (Section 4.1.5 (Retrofit Program for Existing Discharges)) requires that the District submit retrofit program performance metrics to EPA for review and approval. In addition, the Final Permit specifically provides that the District must public-notice the performance metrics for retrofit projects. *Id.* EPA encourages the Commenter to participate in this process, including possibly requesting that the public participation protocol include public review/comment for all retrofit projects.

- j. The Commenter requests a clarification of the following statement, which she says is oddly worded: “Upon completion of the structural assessment, the Permittee shall commit to installing 350,000 square feet of green roofs. . .” Draft Permit at p. 11. She goes on to question whether the District is required to commit to installing the green roofs or to install them.

EPA Response: Final Permit has been updated to address this comment. Section 4.1.7.1 of the Permit now requires that the District complete the structural assessment, and Section 4.1.7.2 now contains a requirement that the Permittee must install 350,000 square feet of green roofs on District properties during the term of the Permit (including schools and school administration buildings).

- k. The Commenter requests that more detail be provided regarding the implementation of the plans described in Section 4.3 – 4.9 of the Draft Permit—specifically, deadlines, update schedules, EPA review/approval, and public participation requirements.

EPA Response: The Final Permit requires that the SWMP Plan include all applicable deadlines and schedules: “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 in an easily accessible location at all times.” *See* Section 3 of the Final Permit. The Final Permit goes on to require that: “[n]o 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, as part of the application for Permit renewal.” *Id.* Finally, Section 4.9.4.1 requires that the District provide opportunities for the public to participate in the decision making processes involving the implementation and update of the Permittee’s SWMP.

- l. The Commenter expresses concern that Permittees are allowed to determine the cost-benefit and affordability of stormwater management program components rather than the EPA.

EPA Response: The cost-benefit analysis requirement has been removed from Section 6.2.2.i. of the Final Permit.

18. National Association of Clean Water Agencies, Keith J. Jones, Esq. (June 4, 2010).

- a. The Commenter is generally supportive of green infrastructure requirements, but states a concern that the overall scope of the Draft Permit and the broad reach of many of its requirements will have a significant negative impact on the city and its residents without evidence of potential environmental benefit. The Commenter is also concerned with the financial costs facing the District to comply with the Draft Permit, especially without additional federal funding to assist with the activities required by the Permit. Further, the Commenter believes that it is hypocritical for EPA as a federal agency to impose costs on the District when federal facilities located within the District have determined that they will not pay DC’s impervious surface area fee. Moreover, the Commenter believes that EPA should refrain from issuing a new stormwater Permit for the District until such time as the federal government is willing to pay its share of the associated costs (i.e. stormwater fee).

EPA Response: EPA acknowledges that the District and covered entities within the DC MS4 Permit Area may experience short-term adjustments to the new standards, but EPA does not expect the cost of these activities to increase long-term. In fact, the approaches required by the Final Permit generally are more cost-effective than conventional approaches. *See e.g., Analysis of the Pollution Reduction Potential of DC Stormwater Standards* (LimnoTech. Inc., July 24, 2009); *Reducing Stormwater Costs through Low Impact Development Strategies and Practices*

(EPA, Dec. 2007) (<http://www.epa.gov/owow/NPS/lid/costs07/>); *Economic Costs, Benefits and Achievability of Stormwater Regulations for Construction and Development Activities* (Report to Natural Resources Defense Council and Waterkeeper Alliance, 2008); *Comparison of Environmental Site Design for Stormwater Management for Three Redevelopment Sites in Maryland* (Meliora Environmental Design LLC, 2008); *Cost-Benefit Evaluation of Ecoroofs* (City of Portland, 2008) (<http://www.portlandonline.com/bes/index.cfm?a=261053&c=50818>); *Rooftops to Rivers, Green Strategies for Controlling Stormwater and Combined Sewer Overflows* (Natural Resources Defense Council, June 2006) (<http://www.nrdc.org/water/pollution/rooftops/rooftops.pdf>); *Sustainable Raindrops* (Riverkeeper, 2006) (<http://www.riverkeeper.org/wp-content/uploads/2009/06/Sustainable-Raindrops-Report-1-8-08.pdf>); *A Triple Bottom Line Assessment of Traditional and Green Infrastructure Options for Controlling CSO Events in Philadelphia's Watersheds* (Stratus Consulting, August 24, 2009) (http://www.epa.gov/npdes/pubs/gi_phil_bottomline.pdf); *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 at 4-5* (Richard R. Horner, 2007); and a proliferation of other case studies and reports.

As to the Commenter's concern that federal facilities have determined that they will not pay the District's impervious surface area fees, the Agency is aware that the District relies on the impervious surface assessment as a basis for supporting its compliance with the Permit requirements. However, the scope of this Permit is limited to imposing stormwater controls and effluent limitations on the District as Permittee (see Section 1 of Final Permit). In any event, EPA notes that Senate Bill 3481, which requires the federal government to comply with local stormwater fees that are used to treat and manage polluted stormwater runoff, passed the U.S. Senate and House by unanimous consent on December 21 and December 22, 2010, respectively, and was signed into law by President Obama on January 4, 2011. *A bill to amend the Federal Water Pollution Control Act to clarify Federal responsibility for stormwater pollution*, S. 3481, 111th Congress (2009 - 2010) (available at: <http://thomas.loc.gov/cgi-bin/bdquery/z?d111:S3481>:). On March 14, 2011, the U.S. Government Accountability Office indicated its willingness to pay the fee in light of the recent legislation. See U.S. Government Accountability Office, *Letter re: Public Law 111-378 and Payment of the Stormwater Charge* (March 14, 2011).

- b. The Commenter is concerned that the retrofit requirements for new development and redevelopment in the Draft Permit are too extensive and that they will impose a huge financial cost on the District and its ratepayers without a clear understanding of water quality benefits. Instead of the retrofit program proposed in the Draft Permit, the Commenter recommends that a series of pilot programs for impervious area retrofits be substituted in the Permit, allowing time to study both the environmental and cost effectiveness of these efforts before requiring a more wide-scale program.

EPA Response: EPA notes that the costs to the District to administer the retrofit program are for activities such as site plan reviews and inspections, which would be incurred regardless of the standard set by the Permit. Further, EPA contends that the retrofit requirements contained in the

Final Permit are a feasible and effective way to control discharges from existing development. See Section 4.1 of today's Fact Sheet for more discussion.

- c. The Commenter states that the potential to create numeric limits for stormwater discharges is another area of concern, arguing that such limits would run counter to the requirement of Section 402(p) of the Clean Water Act that municipal stormwater Permits include controls to reduce the discharge of pollutants to the "maximum extent practicable." (MEP). The Commenter cites *Defenders of Wildlife v. Browner*, 191 F.3d 1159 (9th Cir. 1999), *reh'g en banc denied*, 197 F.3d 1035 (9th Cir. 1999) in support of its argument that numeric limits do not belong in MS4 Permits. The Commenter also disputes EPA's statement in the draft Fact Sheet that the "meaning of the MEP standard has continued to evolve since it was first articulated two decades ago," arguing that with regard to the issue of numeric effluent limits in stormwater Permits, the MEP standard has not evolved at all since numeric effluent limits continue to be prohibited in MS4 Permits. Finally, the Commenter also believes that any references in the Permit to numeric effluent limits should be removed, and that the Permit should further clarify that compliance with TMDL WLAs will be done through best management practices.

EPA Response: EPA disagrees that either section 402(p) of the Clean Water Act, 33 U.S.C. § 1342(p), or *Defenders of Wildlife v. Browner*, 191 F.3d 1159 (9th Cir. 1999) preclude the inclusion of numeric limits for stormwater discharges in NPDES Permits. Specifically, EPA disagrees that such numeric limits are counter to the Clean Water Act standard of MEP. While EPA expected the initial rounds of small MS4 Permits to set forth mostly narrative, BMP-based requirements, the Agency expected that later Permits could and would require more specific Permit requirements. At the same time, it certainly did not rule out the imposition of numeric effluent limitations in MS4 Permits. See e.g., EPA, *National Pollutant Discharge Elimination System--Regulations for Revision of the Water Pollution Control Program Addressing Stormwater Discharge*, 64 Fed. Reg. 68722, 68788 (Dec. 8, 1999) (available at: http://cfpub.epa.gov/npdes/regresult.cfm?program_id=6&type=1&sort=name&view=all).²¹

The Agency also contends that the Commenter misreads *Defenders of Wildlife*. That decision states that when EPA is the Permit-issuing authority, it has the "authority to determine that ensuring strict compliance with state water-quality standards is necessary to control pollutants. . . . Under 33 U.S.C. § 1342(p)(3)(B)(iii), EPA's choice to include either management practices or

²¹ The Preamble provides:

For this reason, today's rule specified that the "compliance target" for the design and implementation of municipal stormwater control programs is "to reduce pollutants to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the CWA." The first component, reductions to the MEP, would be realized through implementation of the six minimum measures. The second component, to protect water quality, reflects the overall design objective for municipal programs based on CWA section 402(p)(6). The third component, to implement other applicable water quality requirements of the CWA, recognizes the Agency's specific determination under CWA section 402(p)(3)(B)(iii) of the need to achieve reasonable further progress toward attainment of water quality standards according to the iterative BMP process, as well as the determination that State or EPA officials who establish TMDLs could allocate waste loads to MS4s as they would to other point sources.

numeric limitations in the Permits was within its discretion.” *Defenders of Wildlife*, 191 F.3d at 1166-67. EPA guidance contains additional support for EPA’s authority to include WQBELs in MS4 Permits. *See e.g.*, “Revisions to the November 22, 2002 Memorandum ‘Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Stormwater Sources and NPDES Permit Requirements Based on Those WLAs’” at 2 (Nov. 12, 2010) (available at: http://www.epa.gov/npdes/pubs/establishingtmdlwla_revision.pdf)²²; and “MS4 Permit Improvement Guide,” http://www.epa.gov/npdes/pubs/ms4Permit_improvement_guide.pdf (April 2010).

In fact, EPA’s Environmental Appeals Board relied on the *Defenders of Wildlife* decision in an Opinion relating to an appeal of a previous iteration of the very Permit at issue here:

The notion that effluent limits may be expressed as either numeric limits or as some other restriction that limits the discharge of pollutants, such as BMPs, has been stated in EPA guidance and has been endorsed by this Board. In essence, because the term ‘effluent limitation’ is defined to mean any restriction on quantities, rates, and concentrations of pollutants, effluent limits required by 40 C.F.R. § 122.44(d)(1) therefore may be expressed as either numeric limits or as BMPs, both of which serve to limit quantities, rates or concentrations of pollutants (citations removed).

In re: Government of the District of Columbia Municipal Separate Storm Sewer System, 10 E.A.D. 323 (Feb. 20, 2002) (available at: <http://www.epa.gov/eab/disk11/dcms4.pdf>). In other words, so long as EPA has a record that the particular type of limit or control is appropriate, it can include such control in a Permit. In the case of the District’s Final Permit, EPA has specifically found that numeric limits/quantifiable provisions are appropriate in many areas, as discussed in detail in today’s Fact Sheet.

- c. The Commenter generally supports standards for new development and redevelopment that call for a certain percentage of stormwater to be retained on-site, but states that there should also be alternative options available due to site-specific constraints. The Commenter also states that it has technical feasibility and cost concerns with the 90% capture rate required by the Draft Permit. The Commenter also raises a concern that this requirement will have a chilling effect on new development and redevelopment in the District. Further, the Commenter seeks to have the performance standard contained in the Draft Permit revised to encourage on-site capture based on site-specific considerations without establishing any specific capture rate.

EPA Response: It is EPA’s experience that Permits which simply “encourage” activities rarely achieve their objectives, and are not enforceable. EPA also believes that technical feasibility of retention practices to capture a 90th percentile storm volume, and more, are well established.

²² That document provides: “Since 2002, many NPDES authorities have documented the contributions of stormwater discharges to water quality impairment and have identified the need to include clearer permit requirements in order to address these impairments. Numeric WQBELs in stormwater permits can clarify permit requirements and improve accountability and enforceability. For the purpose of this memorandum, numeric WQBELs use numeric parameters such as pollutant concentrations, pollutant loads, or numeric parameters acting as surrogates for pollutants, such as such a s stormwater flow volume or percentage or amount of Impervious cover.”

There are no data to suggest that stormwater requirements of any kind have influenced development in any community. In fact, communities with stringent stormwater retention standards, *e.g.*, Portland, Seattle, have generally had development/redevelopment rates that exceed the national average.

19. National Association of Flood and Stormwater Management Agencies (NAFSMA), Susan Gilson (June 4, 2010).

- a. The Commenter states that the legal arguments regarding EPA's obligation to implement the statutory standard of reducing pollutants to the "maximum extent practicable" (MEP) set forth in NAFMSA's August 19, 2004 Petition for Leave to Intervene and in NAFSMA's written comments of August 12, 2005 are applicable to the current Draft Permit, and are incorporated herein by reference.

EPA Response: In the referenced documents, NAFSMA argued that the CWA requires inclusion of *only* an MEP standard for MS4 discharges, and that the statute does not require specific narrative or numeric limits to ensure compliance with state water quality standards or TMDLs. EPA agrees that the inclusion of such standards is not required; however, it is clear that this type of standard is not in any way precluded, assuming that it is supported by a sufficient record. Also, EPA disagrees with the Commenter's contention that numeric limits are counter to the Clean Water Act standard of MEP. While EPA expected the initial rounds of small MS4 Permits to set forth mostly narrative, BMP-based requirements, the Agency expected that later Permits could and would require more specific Permit requirements. At the same time, it certainly did not rule out the imposition of numeric effluent limitations in MS4 Permits. *See e.g.*, EPA, *National Pollutant Discharge Elimination System--Regulations for Revision of the Water Pollution Control Program Addressing Stormwater Discharge*, 64 Fed. Reg. 68722, 68788 (Dec. 8, 1999) (available at: http://cfpub.epa.gov/npdes/regresult.cfm?program_id=6&type=1&sort=name&view=all)²³

The Agency also contends that the Commenter misreads *Defenders of Wildlife*. That decision states that when EPA is the Permit-issuing authority, it has the "authority to determine that ensuring strict compliance with state water-quality standards is necessary to control pollutants. . . . Under 33 U.S.C. § 1342(p)(3)(B)(iii), EPA's choice to include either management practices or numeric limitations in the Permits was within its discretion." *Defenders of Wildlife*, 191 F.3d at

²³ The Preamble provides:

For this reason, today's rule specified that the "compliance target" for the design and implementation of municipal stormwater control programs is "to reduce pollutants to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the CWA." The first component, reductions to the MEP, would be realized through implementation of the six minimum measures. The second component, to protect water quality, reflects the overall design objective for municipal programs based on CWA section 402(p)(6). The third component, to implement other applicable water quality requirements of the CWA, recognizes the Agency's specific determination under CWA section 402(p)(3)(B)(iii) of the need to achieve reasonable further progress toward attainment of water quality standards according to the iterative BMP process, as well as the determination that State or EPA officials who establish TMDLs could allocate waste loads to MS4s as they would to other point sources.

1166-67. EPA guidance contains additional support for EPA’s authority to include WQBELs in MS4 Permits. *See e.g.*, “Revisions to the November 22, 2002 Memorandum ‘Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Stormwater Sources and NPDES Permit Requirements Based on Those WLAs’” at 2 (November 12, 2010) (available at: http://www.epa.gov/npdes/pubs/establishingtmdlwla_revision.pdf)²⁴; and “MS4 Permit Improvement Guide,” http://www.epa.gov/npdes/pubs/ms4Permit_improvement_guide.pdf (April 2010).

In fact, EPA’s Environmental Appeals Board relied on the *Defenders of Wildlife* decision in an Opinion relating to an appeal of a previous iteration of the very Permit at issue here:

The notion that effluent limits may be expressed as either numeric limits or as some other restriction that limits the discharge of pollutants, such as BMPs, has been stated in EPA guidance and has been endorsed by this Board. In essence, because the term ‘effluent limitation’ is defined to mean any restriction on quantities, rates, and concentrations of pollutants, effluent limits required by 40 C.F.R. § 122.44(d)(1) therefore may be expressed as either numeric limits or as BMPs, both of which serve to limit quantities, rates or concentrations of pollutants (citations removed).

In re: Government of the District of Columbia Municipal Separate Storm Sewer System, 10 E.A.D. 323, 2002 EPA App. LEXIS 1 (Feb. 20, 2002). In other words, so long as EPA has a record that the particular type of limit or control is appropriate, it can include such control in a Permit. In the case of the District’s Final Permit, EPA has specifically found that numeric limits/quantifiable provisions are appropriate in many areas, as discussed in detail in today’s Fact Sheet.

- b. The Commenter indicates that she supports the comments submitted by the National Association of Clean Water Agencies, and that NAFSMA shares NACWA’s concerns about the unprecedented regulatory and financial burdens that the Draft Permit would place upon the District and its ratepayers without any clear knowledge of how much environmental benefit will be achieved in return.

EPA Response: EPA acknowledges that the District and covered entities within the DC MS4 Permit Area may experience short-term adjustments to the new standards, but EPA does not expect the cost of these activities to increase long-term. In fact, the approaches required by the Final Permit generally are more cost-effective than conventional approaches. *See e.g.*, *Analysis of the Pollution Reduction Potential of DC Stormwater Standards* (LimnoTech. Inc., July 24, 2009); *Reducing Stormwater Costs through Low Impact Development Strategies and Practices* (EPA, Dec. 2007) (<http://www.epa.gov/owow/NPS/lid/costs07/>); *Economic Costs, Benefits and Achievability of Stormwater Regulations for Construction and Development Activities* (Report to

²⁴ That document provides: “Since 2002, many NPDES authorities have documented the contributions of stormwater discharges to water quality impairment and have identified the need to include clearer permit requirements in order to address these impairments. Numeric WQBELs in stormwater permits can clarify permit requirements and improve accountability and enforceability. For the purpose of this memorandum, numeric WQBELs use numeric parameters such as pollutant concentrations, pollutant loads, or numeric parameters acting as surrogates for pollutants, such as such a s stormwater flow volume or percentage or amount of Impervious cover.”

Natural Resources Defense Council and Waterkeeper Alliance, 2008); *Comparison of Environmental Site Design for Stormwater Management for Three Redevelopment Sites in Maryland* (Meliora Environmental Design LLC, 2008); *Cost-Benefit Evaluation of Ecoroofs* (City of Portland, 2008) (<http://www.portlandonline.com/bes/index.cfm?a=261053&c=50818>); *Rooftops to Rivers, Green Strategies for Controlling Stormwater and Combined Sewer Overflows* (Natural Resources Defense Council, June 2006) (<http://www.nrdc.org/water/pollution/rooftops/rooftops.pdf>); *Sustainable Raindrops* (Riverkeeper, 2006) (<http://www.riverkeeper.org/wp-content/uploads/2009/06/Sustainable-Raindrops-Report-1-8-08.pdf>); *A Triple Bottom Line Assessment of Traditional and Green Infrastructure Options for Controlling CSO Events in Philadelphia's Watersheds* (Stratus Consulting, August 24, 2009) (http://www.epa.gov/npdes/pubs/gi_phil_bottomline.pdf); *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 at 4-5* (Richard R. Horner, 2007); and a proliferation of other case studies and reports.

- c. NAFSMA shares in NACWA's concern about the technical feasibility and cost of achieving specific, mandatory levels of onsite stormwater retention in a highly urbanized environment such as the District.

EPA Response: EPA is aware that on-site stormwater retention may be difficult in a highly-urbanized environment such as the District. Accordingly, the Final Permit (Section 4.1.3) contains a requirement that the District 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 cannot meet stormwater management performance standards otherwise required by the Permit. It is EPA's experience that such programs can be used to fully resolve the lack of ability for on-site stormwater retention.

- d. The Commenter wishes to have the qualifier "to the maximum extent practicable" ("MEP") added to various portions of the Permit, since it believes that MEP is the only standard that EPA can lawfully apply to municipal stormwater discharges, in accordance with Section 402(p) of the Clean Water Act.

EPA Response: EPA believes that it is appropriate (and even often desirable) for the Permit writer to interpret and translate those pollutant objectives into more specific narrative provisions when that will be the most effective way to achieve environmental goals. Hence, the Final Permit contains specific numeric objectives for retrofit drainage areas, tree plantings, square footage of green roofs, and other measurable requirements, and narrative requirements for items like landscape and recreational facilities management and pesticide, herbicide, fertilizer, and landscape irrigation. See Section 4.3.4. The Permit reflects what EPA as the Permit writer determines are the maximum extent practicable pollutant reductions that the Permittee can achieve with respect to its discharges. MEP language does not belong in the Permit itself, because it is the responsibility of the Permit writer—and not the Permittee—to make this determination.

20. Natural Resources Defense Council [Representing: see groups below], David Beckman, et al [see contacts below] (June 4, 2010).

The Comment letter includes hard copy attachments: (1) “Green Infrastructure in the District of Columbia: Implications for the District’s Stormwater Permit,” by Diane M. Cameron (June 4, 2010) (hereinafter, “Cameron Report”); (2) e-mail from Diane M. Cameron, Conservation Program Director, Audubon Naturalist Society Consultant to the Natural Resources Defense Council; (3) Memorandum from Biohabitats, Inc. and Horsely Witten Group, Inc. to Meo Curtis, Montgomery County DEP Re: Third Draft Review of Montgomery County Code (Dec. 14, 1999); (4) DC MS4 Permit Letter of Agreement (August 1, 2008); (5) “Investigation of the Feasibility and Benefits of Low-Impact Site Design Practices (“LID”) for Ventura County, Richard R. Horner (2007); (6) Initial Investigation of the Feasibility and Benefits of Low-Impact Site Design Practices (“LID”) for the San Francisco Bay Area, Richard R. Horner (2007); (7) Supplementary Investigation of the Feasibility and Benefits of Low-Impact Site Design Practices (“LID”) for the San Francisco Bay Area, Richard R. Horner (2007); (8) State of California, California Regional Water Quality Control Board, Los Angeles Region, Order No. 01-182, NPDES Permit No. CAS004001, Waste Discharge Requirements for Municipal Stormwater and Urban Runoff Discharges within the County of Los Angeles and the Incorporated Cities Therein, except the City of Long Beach (Dec. 13, 2001), as amended; (9) State of West Virginia, Department of Environmental Protection, Division of Water and Waste Management, General NPDES Water Pollution Control Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems, Permit, No. WV0116025 (June 22, 2009). The Commenters also included a compact disk containing the documents relied on in the comments.²⁵

EPA sincerely thanks NRDC for providing this voluminous supporting information, which was reviewed as part of Permit reissuance. The references were useful in adding to the understanding of the Commenters points, and provided support for certain elements of the Final Permit and today’s Fact Sheet.

EPA notes also that it met with some of these Commenters on August 3, 2010. The purpose of the meeting was simply to discuss the Comment letter, and the parties did not raise new issues at that meeting. Attendees included representatives from the following organizations: Earthjustice, DC Environmental Network, Casey Trees, Chesapeake Bay Foundation, Anacostia Watershed Society, NRDC, Sierra Club, NRDC, and Anacostia Waterkeeper.

According to the Comment letter, the comments were submitted by the following individuals representing the listed organizations:

David Beckman, Director, Water Program
Noah Garrison, Attorney, Water Program
Lawrence Levine, Sr., Attorney, Water Program
Rebecca Hammer, Legal Fellow, Water Program
Cori Lombard, Legal Fellow, Water Program
Natural Resources Defense Council

²⁵ The compact disk was transmitted via letter from Rebecca Hammer dated June 3, 2010.

Neal Fitzpatrick, Executive Director
Audubon Naturalist Society

Paul F. Walker, Ph.D., Director, Security and
Sustainability
Global Green USA

Chris Weiss, Director
DC Environmental Network

Gwyn Jones, Chair
Sierra Club, DC Chapter

Beth Mullin, Executive Director
FORCE – Friends of Rock Creek's Environment

Brent Bolin, Director of Advocacy
Anacostia Watershed Society

Maisie Hughes, Director, Planning and Design
Casey Trees

Andy Fellows, Chesapeake Regional Director
Clean Water Action

Ed Merrifield, President
Potomac Riverkeeper

Julie Lawson, Chair, DC Chapter
Surfrider Foundation

Dottie Yunger, Executive Director
Anacostia Riverkeeper

Irv Sheffey, Associate Field Organizer
DC Environmental Justice & Community
Partnerships Program
Sierra Club

- a. The Commenters indicate that they incorporate by reference the comments of Earthjustice and the Chesapeake Bay Foundation.

EPA Response: EPA has responded to those comments elsewhere herein, and incorporates those responses here.

- b. The Commenters state that, under section 706 of the Administrative Procedure Act (“APA”), an agency’s issuance of an MS4 Permit may not be “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” Under this standard, the agency must examine all of the relevant data and articulate a satisfactory explanation for its action, including a “rational connection between the facts found and the choice made.” The Commenters believe that neither the draft Permit, accompanying Fact Sheet, nor other documents that have been made available to the public suffice to meet these obligations.

EPA Response: EPA agrees that the Commenters have correctly cited the applicable APA standard of review, 5 U.S.C. § 706, for agency activities such as EPA-issued MS4 Permits. However, the Agency contends that it has examined all relevant data and correctly articulated its actions—both in the Draft Permit/Fact Sheet that were public-noticed in April 2010, and through the Final Permit/Fact Sheet and this Responsiveness Summary.

- c. The Commenters note that polluted stormwater runoff can damage receiving waters, and that the District has 414 storm sewer outfalls that discharge stormwater and associated pollution into the Anacostia and Potomac Rivers, Rock Creek, and their tributaries. The Commenters also state that these waters are impaired for several pollutants which are associated with discharges from the MS4, and that they continue to be impaired without improvement despite the fact that the DC MS4 Permit is in its third Permit cycle and that several TMLDs have been developed for each water body. The Commenters conclude that a failure to progress toward achieving water quality standards confirms the need for an effective and enforceable MS4 Permit that will stem stormwater pollution and achieve improvements in water quality.

EPA Response: EPA agrees that polluted stormwater runoff can be damaging to receiving waters, and that the District’s impaired water bodies need to be improved. Both points are discussed in detail in today’s Fact Sheet. Unfortunately, the unique nature of TMDL delisting makes progress difficult to evaluate: delisting under CWA 303(d) does not occur over time but rather only once receiving waters are no longer impaired. Also, it is difficult to identify water quality improvements in highly-urbanized areas like the District, especially when there is little space available to add green infrastructure. Therefore, reductions in the magnitude and frequency of impairments are not generally tracked or documented.

As to the point that water impairments persist for several pollutants associated with MS4 discharges, EPA believes that the green infrastructure practices called for in the Final Permit and being implemented by the District are proven approaches to improving water quality. While the Agency believes that water quality improvements have occurred within the District as a result of such actions, there have been few delistings from the District's Section 303(d) list of impaired waters. As currently assessed, streams are either identified as impaired or not impaired. Therefore, reductions in the magnitude and frequency of impairments are not tracked or documented. The revised monitoring program and the green infrastructure requirements associated with the Final Permit are expected to result in documentation of such improvements, as explained at several locations in today’s Fact Sheet.

- d. The Commenters state that the Permit does not anywhere ensure that the Permittee will reduce discharges of pollutants to the maximum extent practicable (MEP), which is required by the CWA and its implementing regulations. The Commenters also indicate that the Draft Permit allows for future development of substantive pollution control programs by the Permittee without public or EPA comment, and in many instances does not clearly state when such program development must occur. The Commenters also believe that the Permit must contain “specific measurable criteria” with clearer and more enforceable provisions, and they cite Draft Permit provisions that they feel are overly vague, *e.g.*, section 4.2.2 (Non-District Owned and Operated Practices); section 4.3.6.4 (chemical deicers, salt, sand, and/or sand/deicer mixtures); section 6.2.2. (Annual Report requirements); section 8.1 (Implementation Plans). The Commenters also request that the Permit contain more specific deadlines for compliance, and suggest that it runs counter to Agency guidance by including references to “other policies” and “other management practices.”

EPA Response: EPA has updated the Final Permit to remove all references to the MEP standard (except for the statement that “This Program has been determined to reduce the discharge of pollutants to the maximum extent practicable,” *see* Permit at Section 3). Instead, information supporting the fact that the discharges are expected be reduced to the MEP is now contained in today’s Fact Sheet.

Next, as to the Commenters’ point that the Draft Permit allows for future development of substantive pollution control programs by the Permittee without public or EPA comment, the Permit contains robust examples of opportunities for public input and EPA approval for activities like: SMWP development (Section 3) (“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.”); off-site/in-lieu program (Section 4.1.3); retrofit projects (Section 4.1.5); optimal catch basin inspections, cleaning and repairs (Section 4.3.5); and Consolidated TMDL Implementation Plan (Section 4.10.3). There is also a general requirement that the District “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.” Section 4.9.4.

As to the Commenters’ suggestion that the Permit lacks specific measurable criteria with regard to certain activities, the inclusion of numeric performance standards for many of the required activities ensures the District’s accountability. *See e.g.*, Sections 4.1.1 (Standard for Stormwater Discharges from Development); 4.1.5 (Retrofit Program for Existing Discharges); 4.1.6 (Tree Canopy); 4.1.7 (Green Roof Projects); and 4.3.6 (Streets, Alleys and Roadways). While the Commenters point out that requirements for some other activities are “too vague to be enforceable,” EPA has for each Permit requirement determined whether the Final Permit should either contain a prescriptive requirement/performance standard, or whether the District is in the best position to make such determinations. See the Fact Sheet for additional discussion.

With regard to the Commenters' concern that the Permit does not contain specific deadlines for compliance, the Final Permit responds to this point by including more specific deadlines for certain activities, *see e.g.*: Section 2.1.1 (requirement to remedy deficiencies in the legal authority to carry out these requirements): "as soon as possible" changed to "within two years of effective date"

- e. The Commenters indicate that they are troubled by the perceived lack of numeric effluent limits contained in the Draft Permit, and suggest that the Draft Permit delegates the task of developing many BMPs to the Permittee in its plans. The Commenters further state that MS4 Permits must contain effluent limits for all pollutants for which an MS4's discharges cause or contribute to a violation of water quality standards for an individual pollutant, including Rock Creek (impaired for bacteria and metals), Anacostia River (impaired for metals, TSS and O&G), and the Potomac River (impaired for bacteria and metals).

EPA Response: Numeric limits are extremely difficult to calculate and enforce in stormwater Permits, where the nature of the influent is highly variable. *See e.g.*, EPA, *National Pollutant Discharge Elimination System--Regulations for Revision of the Water Pollution Control Program Addressing Stormwater Discharge*, 64 Fed. Reg. 68722, 68753 (Dec. 8, 1999) (available at:

http://cfpub.epa.gov/npdes/regresult.cfm?program_id=6&type=1&sort=name&view=all) ("Wet weather discharges from MS4s introduce a high degree of variability in the inputs to the models currently available for derivation of water quality based effluent limitations, including assumptions about in-stream and discharge flow rates, as well as effluent characterization. In addition, EPA anticipates that determining compliance with any such numeric limitations may be confounded by practical limitations in sample collection."). Accordingly, the Final Permit does not contain numeric *effluent* standards; rather, it includes numeric *performance* standards. *See e.g.*, Sections 4.1.1 (Standard for Stormwater Discharges from Development); 4.1.5 (Retrofit Program for Existing Discharges); 4.1.6 (Tree Canopy); 4.1.7 (Green Roof Projects); and 4.3.6 (Streets, Alleys and Roadways).

- f. The Commenters believe that the Draft Permit anticipates that the Permittee's "Upgraded SWMP" (Stormwater Management Program) will serve as the baseline for the Permittee's SWMP, but that the SWMP does not constitute a complete program adequate under the CWA because: (1) the SWMP was not circulated for review along with the draft Permit; (2) the Draft Permit and associated Fact Sheet contain no findings or other evidence to support the consistency of the 2009 SWMP with applicable requirements such as the MEP standard; (3) most of the specific commitments in the SWMP that implement CWA regulations were accomplished, or should have been, during 2009, and the plan is therefore out-of-date; and (4) the "measurable outcomes" set forth in the SWMP are too often neither measurable nor reasonably specific enough to determine what outcome is promised and will be used to determine the District's compliance with the Draft Permit.

EPA Response: In response to the Commenters' concerns, the Final Permit ensures that the SWMP is more of a "living document": "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.” Final Permit at Section 3.

As to the Commenters’ point that the 2009 SWMP might not be consistent with applicable requirements, EPA has revised the Permit to ensure that the program is updated as necessary, rather than relying on the version that was dated February 19, 2009. *See e.g.*, Section 4.1 (Standard for Long-Term Stormwater Management), which was revised to require that the Permittee continue to develop, implement, and enforce “a program in accordance with this Permit and the Permittee’s updated SWMP Plan that integrates green technology stormwater management practices at the site and neighborhood levels through policies, regulations, ordinances and incentive programs.” Formerly, this Section referred to the February 19, 2009 SWMP Plan.

Regarding the need to have updated requirements in the Permit, given that some of those contained in the SWMP have been completed, EPA has in fact endeavored to keep the Permit current in terms of remaining requirements. This is also more likely because of the conversion in the Final Permit from reference to provisions of the February 19, 2009 SWMP to the updated SWMP Plan.

Finally, with respect to the request for Permit requirements that are actually measurable and specific enough to determine what outcome is promised, EPA has revised the Final Permit to include such requirements. *See e.g.*, Sections 4.1.1 (Standard for Stormwater Discharges from Development); 4.1.5 (Retrofit Program for Existing Discharges); 4.1.6 (Tree Canopy); 4.1.7 (Green Roof Projects); and 4.3.6 (Streets, Alleys and Roadways).

- g. The Commenters note that the 2008 Letter of Agreement was agreed to by the Permittee as an “enhancement” to its MS4 Permit; therefore, the commitments in the Letter should be made requirements of the Permit.

EPA Response: EPA has considered each requirement of the 2008 Letter of Agreement, and incorporated most of those requirements into the body of the Final Permit, to the extent that they have not already been completed. EPA has not included in the Permit those items that were in the 2008 Letter of Agreement, but which have since been completed, including for example: (1) requirement to implement recommendations for funding mechanism and fee structure by December 31, 2008; (2) requirements for rain gardens; and (3) requirement to submit details of implementation of the enhanced program for street sweeping and fine particle removal in the Upgraded SWMP (Feb. 19, 2009).

- h. The Commenters suggest that the Permit needs more requirements directed toward controlling trash within the District, as well as numeric trash reduction targets by the end of the Permit term, with mandatory demonstrations of reasonable annual progress toward those targets.

EPA Response: The Final Permit incorporates requirements of the Anacostia Trash TMDL (approved September 21, 2010 (available at: http://ddoe.dc.gov/ddoe/frames.asp?doc=/ddoe/lib/ddoe/services/pdf/Final_Anacostia_Trash_TMDL.pdf)). See Section 4.10.1 (“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.”). The Permit also sets forth the approaches that the District must take: direct removal from waterbodies, *e.g.*, stream clean-ups, skimmers; direct removal from the MS4, *e.g.*, catch basin clean-out, trash racks; direct removal prior to entry to the MS4, *e.g.*, street sweeping; prevention through additional disposal alternatives, *e.g.*, public trash/recycling collection; and prevention through waste reduction practices, regulations and/or incentives, *e.g.*, bag fees. Moreover, the Permit requires the District to submit a trash reduction calculation methodology with its Annual Reports.

- i. The Commenters state that the Draft Permit does not require the Permittee to meet applicable water quality standards, but rather merely asks the Permittee to make “progress” toward WQS attainment. The Commenters also take issue with the statement in EPA’s draft Fact Sheet that “attainment of water quality criteria is an incremental process...so long as Permittees reduce the discharge of pollutants to the MEP within each Permit cycle.” Finally, the Commenters believe that by not including language requiring the District to meet water quality standards, the Permit is backsliding from inferred requirements to do so included in the 2004 Permit.

At a separate location in their comment letter, the Commenters state that EPA has acted arbitrarily and capriciously by failing to establish a record showing that attaining water quality standards is infeasible. Because of the overlap between the two points above (requirement for WQS attainment and need for showing of infeasibility of WQS attainment), they are addressed together below.

EPA response: The Final Permit does require standards attainment. Section 1.4 of the Final Permit provides that the Permittee must “[e]ffectively 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).” If the District does not comply with this requirement, it would be in violation of the Permit. In addition, Section 2.1.1 of the Permit requires the Permittee to have “legal authority to control discharges to and from the [MS4] in order to prevent or reduce the discharge of pollutants to achieve water quality objectives.” Moreover, Section 8.4 (Duty to Mitigate) provides that “[i]n 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. . . .” And Section 8.19 of the Permit allows it to be reopened for a number of reasons, including, *inter alia*, “[t]o 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.”

EPA acknowledges that such standards attainment may not occur in its entirety during this Permit cycle. This is consistent with the construct of EPA’s Phase II Stormwater Rule, *National Pollutant Discharge Elimination System--Regulations for Revision of the Water Pollution*

Control Program Addressing Stormwater Discharge, 64 Fed. Reg. 68722, 68731 (Dec. 8, 1999) (available at: http://cfpub.epa.gov/npdes/regresult.cfm?program_id=6&type=1&sort=name&view=all) (“At this time, EPA determines that water quality-based controls, implemented through the iterative processes described today are appropriate for the control of such pollutants and will result in reasonable further progress towards attainment of water quality standards. See sections II.L and II.H.3 of the preamble.”); *id.* at 68753 (“EPA envisions application of the MEP standard as an iterative process.”); *id.* at 68754 (“EPA also believes the iterative approach toward attainment of water quality standards represents a reasonable interpretation of CWA section 402(p)(3)(B)(iii).”).

As to the suggestion that the previous Permit was more stringent by requiring standards attainment during the Permit cycle, and therefore the current Permit is backsliding, EPA contends that the requirements have not changed. Both the 2004 Permit and current reissuance require incremental standards attainment. Therefore, backsliding has not occurred since the current Permit is no less stringent than the prior one.

- j. The Commenters indicate that the Draft Permit lacks the required certifications from the District and affected neighboring states under Section 401(a) of the CWA, and that certification by the DC Department of Health alone was insufficient to meet the section 401 requirements.

EPA Response: EPA requested (by letter dated April 21, 2010) that DDOE certify the Final Permit within the forty-five (45) day public review and comment period. DDOE requested a time extension until August 4, 2010, to review the comments received and to furnish the certification. The letter stated that the certification would be waived if it was not received by August 4, 2010. By letter dated August 17, 2010 to DDOE, the certification was waived by DDOE for EPA.

Moreover, at the time that EPA public-noticed the Draft Permit, it mailed individual copies to both the State of Maryland and the Commonwealth of Virginia—neither of which commented on the Draft Permit. (Copies of relevant documents are included in today’s Administrative Record.)

- k. The Commenters believe that the Draft Permit is counter to EPA’s stated policy goals and efforts in other arenas, especially with regard to the Chesapeake Bay.

EPA Response: EPA notes that the Final Permit is in fact in accord with EPA’s policies generally. Specifically with regard to the Chesapeake Bay, EPA notes that the Permit incorporates certain requirements of the Chesapeake Bay TMDL, including necessary reductions of nitrogen, phosphorus, and sediment from the District of Columbia (as well as other Bay jurisdictions) that—when attained—will allow the Bay to attain its applicable water quality standards. As background to these anticipated reductions, EPA notes that each Bay jurisdiction developed a Watershed Implementation Plan (WIP) to identify how it intends to meet the reductions called for in the TMDL. Section 7.2 of the District’s Final Phase I WIP, *Chesapeake Bay TMDL Watershed Implementation Plan District of Columbia Department of the Environment*, (November 29, 2010) (available at:

http://ddoe.dc.gov/ddoe/frames.asp?doc=/ddoe/lib/ddoe/tmdl/Final_District_of_Columbia_WIP_Bay_TMDL.pdf) indicates that it relied in part on the draft MS4 Permit as a guide in development of this document. DC's Final Phase I WIP specifically anticipates reduction of nitrogen, phosphorus, and sediment contributions to the Bay by 11, 27, and 26 percent, respectively, by relying on the following District commitments:

- Install at least 350,000 sq ft of green roofs over the Permit cycle on District property
- Plant at least 4,150 trees annually with a goal of planting and maintaining 13,500 additional trees by 2014 and increasing its tree canopy from 35% to 40% by 2035
- Insure that all development greater than 5,000 sq ft retain stormwater generated from a 1.2" 24-hour storm
- Promotion of low-impact development

Currently, the District and other Bay jurisdictions are working on their Phase II WIPs. EPA notes that the Final Permit includes a reopener clause (Section 8.19) that allows it to be reopened for a number of reasons, including, *inter alia*, "[t]o 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."

In addition, EPA has worked with the District (along with other Bay watershed jurisdictions) to ensure that watershed implementation plans (WIPs) contain the following features: (1) new and redevelopment performance standards; (2) regulation of additional discharges outside the MS4 coverage area; and (3) retrofits for existing discharges. *See* "Urban Stormwater Approach for the Mid-Atlantic Region and the Chesapeake Bay Watershed" (July 2010). The Final Permit contains relevant requirements for each of the foregoing points. *See* Sections 4.1 as to new and redevelopment standards and regulation of additional discharges (although this is not overly relevant for the District, it is included) and 4.1.5 (Retrofit Program for Existing Discharges).

Further, EPA's preliminary modeling for the Bay TMDL demonstrates that, through compliance with the DC MS4 Permit, the District's 2025 WLAs for nitrogen and phosphorous will be met, and that it is very close for sediment. In fact, Permit requirements alone would significantly cut the sediment gap from 27% to 4%.

1. The Commenters note that TMDLs establish wasteload allocations (WLAs), and that once a TMDL has been adopted, NPDES Permits are required to contain clear and specific requirements, including effluent limitations and conditions, consistent with the assumptions and requirements of the approved WLA. The Commenters further state that the Draft Permit does not demonstrate that its effluent limits will be sufficient to meet adopted WLAs. Additionally, the Commenters indicate that MS4 Permits which contain BMPs rather than numeric limits must have an administrative record to support that the BMPs are expected to be sufficient to implement the WLA in the TMDL.

EPA Response: EPA agrees that once a TMDL has been adopted, NPDES Permits must contain conditions that are consistent with the assumptions and requirements of the approved WLA, *see* 40 C.F.R. § 122.44(d)(1)(vii)(B) (When developing water quality-based effluent limits, the permitting authority shall ensure that, *inter alia*, "[e]ffluent limits developed to protect a

narrative water quality criterion, a numeric water quality criterion, or both, are consistent with the assumptions and requirements of any available wasteload allocation for the discharge. . . .”). However, the Agency also posits that it is within its discretion to determine whether ensuring strict compliance with state water-quality standards is necessary to control pollutants: “Under 33 U.S.C. § 1342(p)(3)(B)(iii), EPA's choice to include either management practices or numeric limitations in the Permits was within its discretion.” *Defenders of Wildlife v. Browner*, 191 F.3d 1159, 1166-67 (9th Cir. 1999); *see also In re: Government of the District of Columbia Municipal Separate Storm Sewer System*, 10 E.A.D. 323, 2002 EPA App. LEXIS 1 (Feb. 20, 2002) (“[E]ffluent limits required by section 122.44(d)(1) . . . may be expressed as either numeric limits or as BMPs, both of which serve to limit quantities, rates or concentrations of pollutants” (citations removed)). In the case of the District’s Final Permit, EPA has specifically found that the BMPs and other provisions included in the Permit are sufficient to achieve TMDL WLAs. *See* Fact Sheet discussion at 4.10.

- m. The Commenters state that the Draft Permit nowhere clearly states that compliance with WLAs is required, and the Permit’s iterative, adaptive management approach to TMDL implementation represents another way in which it fails to actually require compliance with WLAs. The Commenters believe that this is counter to law and practice.

EPA Response: EPA agrees that the language in the Draft Permit was inadequate, and it has been modified to require that discharges must comply with applicable TMDL WLAs. *See* Section 1.4 of the Final Permit (“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: . . . [m]eet applicable waste load allocations (WLAs) for each 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). . . .”).

Examples of such requirements in the Permit include: Section 4.10.1 (achieve Anacostia River TMDL WLA for trash); Section 4.10.2 (requirement to complete implementation measures for Hickey Run TMDL); and Section 4.10.3 (where planning is ongoing, such plan(s) must include specified schedule for compliance for each WLA).

Further, the Final Permit (Section 4.10.4, Adjustments to TMDL Implementation Strategies) requires the Permittee to correct any failures to comply with WLAs:

If evaluation data, as outlined in the monitoring strategy being developed per Part 5.1, indicate insufficient progress towards meeting any WLA covered in 4.10.1, 4.10.2, or 4.10.3, the Permittee shall adjust its management programs to compensate for the inadequate progress within 6 months to address the deficiencies, and document the modifications in the 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.

EPA contends that this language is now sufficiently robust to ensure that the Permittee continues to progress toward meeting WLAs. EPA also notes that the public will have additional opportunities for input when the District's Consolidated Implementation Plan, over which EPA has review and approval authority.

- n. The Commenters believe that the Draft Permit fails to include schedules of compliance for applicable WLAs, which they argue is required by EAB precedent, including *District of Columbia Water & Sewer Auth.*, slip op. at 25-34 (March 19, 2008), 13 E.A.D. 714. They also indicate that the Draft Permit unlawfully defers to TMDL Implementation Plans, to be developed by the Permittee, for establishment of numeric benchmarks for pollutant load reductions to impaired water bodies and associated timelines for achieving those benchmarks.

EPA Response: EPA notes that there are no regulations prohibiting Permits from requiring Permittees to develop TMDL Implementation plans, or for many of the implementation requirements to be in the plan rather than the Permit. EPA has reorganized and clarified these requirements in Section 4.10 of the Final Permit. Further EPA has revised the Permit to put specific implementation measures into the final document in order to make them more directly understandable and enforceable. Similarly, EPA has directly incorporated implementation requirements for the newly-approved Anacostia Trash TMDL (Sept. 21, 2010) (available at: http://ddoe.dc.gov/ddoe/frames.asp?doc=/ddoe/lib/ddoe/services/pdf/Final_Anacostia_Trash_TMDL.pdf), and subjected the one element requiring some planning effort to public notice and comment and to EPA approval.

Also, with regard to the Chesapeake Bay, EPA notes that the Permit incorporates certain requirements of the Chesapeake Bay TMDL, including necessary reductions of nitrogen, phosphorus, and sediment from the District of Columbia (as well as other Bay jurisdictions) – that—when attained—will allow the Bay to attain its applicable water quality standards. As background to these anticipated reductions, EPA notes that as part of the Bay TMDL development process, each Bay jurisdiction developed a Watershed Implementation Plan (WIP) to identify how it intends to meet the reductions called for in the TMDL. Section 7.2 of the District's Final Phase I WIP, Chesapeake Bay TMDL Watershed Implementation Plan *District of Columbia Department of the Environment*, (November 29, 2010) (available at: http://ddoe.dc.gov/ddoe/frames.asp?doc=/ddoe/lib/ddoe/tmdl/Final_District_of_Columbia_WIP_Bay_TMDL.pdf) indicates that it relied in part on the draft MS4 Permit as a guide in development of its This document, which represents DC's Phase I WIP, specifically anticipates reduction of nitrogen, phosphorus, and sediment contributions to the Bay by 11, 27, and 26 percent, respectively, by relying on the following District commitments.

- Install at least 350,000 sq ft of green roofs over the Permit cycle on District property
- Plant at least 4,150 trees annually with a goal of planting and maintaining 13,500 additional trees by 2014 and increasing its tree canopy from 35% to 40% by 2035
- Insure that all development greater than 5,000 sq ft retain stormwater generated from a 1.2" 24-hour storm
- Promotion of low-impact development

Currently, the District and other Bay jurisdictions are working on their Phase II WIPs. EPA notes that the Final Permit includes a reopener clause (Section 8.19) that allows it to be reopened for a number of reasons, including, *inter alia*, “[t]o 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.”

- o. The Commenters claim that a perceived inconsistency between the Draft Permit and WLAs/TMDLs precludes any new discharge or increased discharge pursuant to the CWA and the Ninth Circuit’s decision in *Friends of Pinto Creek v. U.S. EPA*, 504 F.3d 1007, 1012 (9th Cir. 2007). In addition, the Commenters note that this general proposition has an exception—where a TMDL has been performed, and the new source can demonstrate that, under the TMDL, the plan is designed to bring the waters into compliance with applicable WQS. The Commenters do not believe that the Draft Permit can meet this standard because it does not guarantee that there are sufficient pollutant load allocations remaining.

EPA Response: The Commenter correctly notes that no Permit may be issued to a “new source or a new discharger” if the discharge from its construction or operation will cause or contribute to the violation of water quality standards. (The Commenter does not cite 40 C.F.R. § 122.4(i), but extracts language from that provision.) However, as the Commenter also states, the definition of “new discharger” includes “any building, structure, facility, or installation: (a) From which there is or maybe a ‘discharge of pollutants;’ . . . (c) Which is not a ‘new source;’ and (d) Which has never received a finally effective NPDES Permit for discharges at that ‘site.’” 40 C.F.R. § 122. However, the discharges covered by the DC MS4 Permit are in no way “new,” in fact, EPA notes that the District’s Permit is over a decade old.

Moreover, to the extent that the Commenter relies on the Ninth Circuit’s *Pinto Creek* decision, that case is readily distinguishable from the facts of the instant Permit for several reasons, including because the *Pinto Creek* decision involved a new source (Carlota Copper Company), which the District is not. It is also inapposite because of the type of NPDES Permit considered by the Ninth Circuit: the Carlota Permit covered mining-related discharges, whereas the DC MS4 Permit addresses municipal stormwater discharges.

- p. The next concern raised by the Commenters is that the Draft Permit fails to require water quality monitoring to determine TMDL compliance for all TMDL pollutants, which they state is inconsistent with the CWA and otherwise arbitrary and capricious.

EPA Response: EPA agrees that the current evaluation framework is no longer the most appropriate approach for a monitoring program, and thus is requiring the District to develop a new monitoring program (as part of its revised stormwater management program) that will, among many other important objectives, “determine if relevant WLAs are being attained within specified timeframes in order to make modifications to relevant management programs, as necessary” (Section 5.1.1). This plan will be subject to public input and EPA approval.

- q. The Commenters believe that green infrastructure measures specified in the Permit, such as green roofs and tree planting, not only control stormwater pollution, but have the

added benefits of improving air quality, reducing energy costs, and creating green jobs. However, the Commenters provide examples of where they believe these requirements need to be strengthened: expanded tree planting and retrofit requirements. As to retrofits, the Commenters compare this Permit to the one issued to Montgomery County, Maryland's MS4, which they believe is more expansive. The Commenters also feel that the the Permit should require that DC Low-Impact Development projects within the Anacostia Restoration Plan should be given priority when selecting projects for retrofitting within the Anacostia watershed. They also believe that the Draft Permit provision requiring a minimum of 3,600,000 square feet of this objective to be "in transportation rights-of-way" should be elaborated.

EPA Response: The tree planting requirements in the Final Permit are appropriate based upon a study which was developed to meet the District Mayor's Tree Canopy goal for District, *see* Casey Trees, *The Green Build-out Model: Quantifying the Stormwater Management Benefits of Trees and Green Roofs in Washington* (May 15, 2007) (available at: <http://www.caseytrees.org/planning/greener-development/gbo/index.php>). Moreover, the Final Permit requires that the District report annually on the progress made towards meeting this goal. Section 4.1.6.2. As to retrofits, the Final Permit contains a performance standard requiring the District to develop a retrofit program within two years of the effective date of the final document, including establishment of performance metrics. (Section 4.1.5.1). EPA fully expects the specific details of the program to be worked out during the public review and comment process, as well as the final EPA approval process. EPA recommends that the Commenters provide feedback to the District during this process.

With regard to the Commenters' comparison of this Permit to the one issued to Montgomery County, Maryland, EPA's goal with the instant Final Permit is to maximize the retrofits with respect to environmental performance (*i.e.*, quality), as opposed to simply focusing on quantity as in the case of Montgomery County. EPA's intention with this Permit is to ensure that the District develops beneficial (*i.e.*, protective) design standards, operation & maintenance standards, etc. for retrofits, so that retrofitting will be done correctly. EPA fully expects that Permits issued in future cycles will include more aggressive implementation requirements.

- r. The Commenters believe that the Draft Permit uses the appropriate on-site stormwater retention standard, but that related Permit provisions should be clarified and strengthened to ensure effective implementation of the standard. For example, the Commenters seek a "stepwise" approach which they believe would ensure maximum possible on-site retention, and a greater than 1:1 mitigation ratio where off-site mitigation is allowed. Further, the Commenters suggest that the Permit be revised to ensure that off-site mitigation projects are green infrastructure-based and occur in the same watershed as the original project, wherever feasible. They also feel that EPA should delete from the Permit the allowance for "adjustments to the retention standards for redevelopment, high density development," and certain other categories of projects.

EPA Response: Section 4.1.3 requires that the District develop an off-site mitigation and/or fee-in-lieu program with requirements sufficient to encourage on-site stormwater management as a first option for meeting stormwater performance. Further this section specifies the following site

constraints appropriate in the determination of infeasibility for meeting stormwater standards: limited capacity for infiltration because of buried utilities, soil contamination, limitation in non-building space, high groundwater; no or minimal onsite uses for harvested stormwater; lack of structural capacity in a redeveloped building for green roofs.”

In addition to the foregoing safeguards, EPA notes that the Permit expands the minimum requirements for an off-site mitigation and/or fee-in-lieu program by requiring, among other things, that the program include at a minimum: (1) Establishment of baseline requirements for on-site retention and for mitigation projects; (2) Specific criteria for determining when compliance with the baseline requirement for on-site retention cannot technically be met based on physical site constraints; (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; and (4) The necessary tracking and accounting systems to implement this section, including that original and off-site practices stay in place and are adequately maintained. *See* Section 4.1.3 of Final Permit.

In addition, Section 4.9.4.1 of the Final Permit requires that the District “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..” Further, Section 4.1.3. specifically requires that the public be involved in the development of the off-site mitigation program (if the District chooses to develop one). Therefore, the public will be invited to participate in the development of the program and suggest a mitigation ratio or other program specifics. EPA encourages the Commenters to participate in this process.

With regard to the Commenters’ suggestion that EPA delete the adjustments allowed to the performance standard previously included for certain categories of development, such as transit-oriented development, EPA appreciates the comment and has deleted this provision from the Final Permit.

- s. The Commenters recommend that the Permit require the District to review its codes and policy documents in order to ensure the removal of barriers to green infrastructure techniques, that any code revisions be subject to public comment, and that individual site plans be open to public review. Additionally, the Commenters seek to have the Permit clarify the requirement concerning incentives for “green landscaping.”

EPA Response: EPA contends that the Draft Permit requirement on code and policy review was sufficient to ensure removal of barriers to green infrastructure, and so has retained that provision in the Final Permit. *See* Section 2.1.4 (The Permittee must “[r]eview 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.”).

As to the green landscaping program required by the Permit, EPA deliberately refrained from being overly prescriptive in the Final Permit because it believes that the District is in the best

position to develop the program on its own. *See* Section 4.1.4 (“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.”).

- t. The Commenters believe that the Permit’s public participation elements are insufficient. They refer to the relevant provisions as “vague and confusing.”

EPA Response: The Final Permit contains robust opportunities for public participation. For example, Section 2.3 of the Final Permit (Stormwater Management Program Administration/Permittee Responsibilities), lists one of DDOE’s major responsibilities as “[m]aking available to the public and other interested and affected parties, the opportunity to comment on the MS4 stormwater management program.” Further, the Permit provisions for development of off-site mitigation/fee-in lieu, retrofit, tree canopy, and storm drain system operation/programs for solids and floatables reduction also include such requirements. *See* Sections 4.1.3, 4.1.5, 4.1.6, and 4.3.5, respectively.

By way of additional examples of public notification requirements, the Final Permit increases public participation aspects of the Permit, in part by including TMDL WLA Implementation as part of the District’s overall Stormwater Management Plan (SWMP) (moved from Section 8.1 of Draft Permit, “Other Applicable –Provisions—WQS and TMDL WLA Implementation Plans and Compliance Monitoring”) to Section 4.10 of Final Permit (“Total Maximum Daily Load (TMDL) Wasteload Allocation (WLA) Planning and Implementation”). It also requires the Permittee to “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.” Section 4.9.4.3 of Final Permit. *See also* Sections 4.9.4.1 (requirement to create opportunities for the public to participate in the decision making processes involving the implementation and update of the Permittee’s SWMP); 4.9.4.2 (requirement to 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); 4.9.4.4 (requirement to continue to develop public educational and participation materials in cooperation and coordination with other agencies and organizations in the District); and 4.9.4.5 (requirement to periodically, and at least annually, update its website).

Further, at Section 3, the Final Permit requires that “[a] current plan shall be posted on the District’s website at an easily accessible location at all times” and also that “[n]o 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.”

21. Short Sign-on Letter from Individuals/Groups Listed Below (June 4, 2010).

Tracy Bowen
Executive Director
Alice Ferguson Foundation

Lee Epstein
Lands Program Director
Chesapeake Bay Foundation

Dottie Yunger
Executive Director
Anacostia Riverkeeper

Andy Fellows
Chesapeake Regional Director
Clean Water Action

Brent Bolin
Director of Advocacy
Anacostia Watershed Society

Chris Weiss
Director
DC Environmental Network

Diane Cameron
Director of Conservation Programs
Audubon Naturalist Society

Pete Ensign
Executive Director
DC Greenworks

Maisie Hughes
Director, Planning and Design
Casey Trees

Jennifer Chavez
Associate Attorney
Earthjustice

Beth Mullin
Executive Director, FORCE
Friends of Rock Creek's Environment

Cori Lombard & Rebecca Hammer
Legal Fellows
Natural Resources Defense Council

Paul F. Walker, Ph.D.
Director, Security and Sustainability
Global Green USA

Ed Merrifield
President
Potomac Riverkeeper

Gwyn Jones
Chair
Sierra Club, DC Chapter

Irv Sheffey
Associate Field Organizer
DC Environmental Justice & Community Partnerships Program
Sierra Club

Julie Lawson
Chair, DC Chapter
Surfrider Foundation

These Commenters indicate in their short sign-on letter that the following draft provisions must be clarified or strengthened: specific numbers of green infrastructure projects; green infrastructure requirements for new development and redevelopment projects

(including an on-site stormwater retention standards for federal and non-federal projects); a retrofit program that will systematically remediate existing runoff problems in the District, over time; pollution cleanup plans (via effectively and fully incorporating existing and future TMDLs and their Waste Load Allocations, for the Anacostia River, Rock Creek and the Potomac River); compliance with existing legal water quality standards; pollution reduction requirements and programs; and outcomes and plans to be subject to robust public participation, with adequate responses from the District government and the EPA.

EPA Response: As discussed in greater detail below, EPA contends that the performance standards and schedules included in the Final Permit adequately address the areas raised by the Commenters as needing clarification or strengthening. At the same time, EPA asserts that some level of flexibility is necessary in certain areas to allow the District to address pollutant sources as appropriate to minimize and prevent discharges. The Commenters are referred to today's Fact Sheet for more discussion of how performance standards in the Permit were developed.

As to the specific number of green infrastructure projects required by the Permit, the Commenters are directed to the examples of tree planting and green roof requirements. *See* Final Permit, Sections 4.1.6.2 ("achieve a minimum net annual tree planting rate of 4,150 plantings annually within the District MS4 area"); and 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)).

With regard to the Commenters' request for on-site stormwater retention standards for federal and non-federal new and development and redevelopment projects, the Final Permit contains significant language at Section 4.1.1 ("Standard for Stormwater Discharges from Development"). EPA notes that the Final Permit has been revised from the draft to make two changes: (1) Throughout the Permit, the terms "new development and redevelopment" have been changed to simply "development." The Permit also includes a definition for this term. (2) The two performance standards at Section 4.1.1 have been revised so that both federal and non-federal facilities are subject to the same standard.

For retrofits, the Final Permit (Section 4.1.5) contains requirements to remediate existing runoff problems, such as an obligation that the District Program implement retrofits for stormwater discharges from 18,000,000 square feet of impervious surfaces over the Permit term. The Permit also requires that a minimum of 1,500,000 square feet of this objective to be in transportation rights-of-way.

As to pollution cleanup plans, the Final Permit contains expansive requirements related to effectively and fully incorporating existing and future TMDLs and their Waste Load Allocations, for receiving streams covered by this Permit. *See* Section 4.10. Also, for any additional pollutant sources not addressed elsewhere in the Permit, the District must continue to compile and submit pertinent information on known or potential pollution sources, in, *inter alia*, land use activities, runoff characteristics and major structural controls. *See* Section 4.11. Moreover, the Permit's opener clause ensures that future TMDLs and WLAs can be incorporated into the Permit. *See* Section 8.19 ("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. . .”).

With regard to compliance with existing legal water quality standards, the Final Permit requires the District to “manage, implement and enforce a stormwater management program . . . to meet the following requirements: . . . [e]ffectively 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). . . .” Section 1.4. EPA notes, however, that the attainment of water quality criteria is an incremental process, consistent with section 402(p)(3)(B) of the Clean Water Act, 33 U.S.C. § 1342(p)(3)(B)(iii), so long as Permittees reduce the discharge of pollutants to the maximum extent practicable (MEP) within each Permit cycle. *See* Section 1.4 of today’s Fact Sheet for a further discussion of these concepts.

For pollution reduction requirements and programs, EPA contends that the District’s overall SWMP satisfies the need for such activities. *See* Section 3 (“This Program has been determined to reduce the discharge of pollutants to the maximum extent practicable.”).

Moreover, the Permit contains numerous requirements for robust public participation. *See e.g.*, Sections 3 (“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.”); 4.1.3 (“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. . . .”); 4.1.5 (“Within 2 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.”); 4.3.5 (“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.”); and 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.”).

22. Smart Growth America, Geoff Anderson (June 4, 2010).

- a. The Commenter believes that, when it comes to stormwater, there is a hierarchy of development typologies, from best to worst, with a whole range of types of developments in between. He indicates that the most protective type of development is one that is located on a brownfield, in an already developed area with higher densities, a mix of uses and transportation options. It is a development that takes an existing site with high imperviousness and little, if any, stormwater controls and retrofits or redevelops that site to significantly reduce stormwater runoff through infiltration, evapotranspiration and reuse, while accommodating more people and with a greater diversity of uses. The

Commenter also lists several advantages from this type of development. Further, the Commenter suggests that the least protective development is one that is built in a far-flung greenfield location which converts large amounts of natural landscape to impervious surface while using minimal stormwater controls, and he lists several disadvantages from this type of development.

EPA Response: The Agency agrees with these points, and believes that the Permit reflects them in various ways, especially through requirements of the SWMP.

- b. The Commenter suggests that there are several principles which should be followed when considering the District's draft MS4 Permit: (1) environmentally-protective actions should be the easiest to achieve (with the most incentives) and the most degrading actions the hardest; (2) regulated entities should be treated equitably, so that a required action should be commensurate with the environmental impact of the action; (3) pollution reductions should be sought from the places where it is easiest and most cost effective to obtain them; (4) hot spots of pollution should be avoided, particularly in densely-populated areas; (5) given already-degraded waters, the Permit should seek as much pollution reduction as can be feasibly achieved from all sources knowing that, in some cases, these reductions are unlikely to be sufficient to achieve water quality goals. The Commenter then states that the Permit should seek to regulate stormwater in a manner that is consistent with each of these principles, balancing one against the other where full reconciliation is impossible.

EPA Response: (1) Through the inclusion of green infrastructure requirements, the Permit does in fact make environmentally-protective actions the easiest to achieve. The Permit also includes a requirement that the District develop an off-site mitigation and/or fee-in-lieu program (Section 4.1.3 of Final Permit), but EPA believes that the transaction costs associated with off-site mitigation and/or fee-in-lieu payments will serve as a sufficient deterrent against developers pursuing these options as a first course. (2) The Permit does in fact treat regulated entities equitably according to environmental impact. For example, Section 4.1.3 of the Permit provides that the off-site mitigation and/or fee-in-lieu program “may also include incentives for achieving other important environmental objectives such as ongoing measurable carbon sequestering, 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.” Also, the performance standard for all development within the DC MS4 Permit Area is the same regardless of type of development or community affluence and diversity. (3) EPA contends that pollution reductions anticipated by the Permit will come through the easiest and most cost-effective methods, *e.g.*, low-impact development and other preventative measures, as opposed to traditional stormwater controls which are more expensive. (For more discussion, *see* today’s Fact Sheet at Section 4.1.1 (Standards for Stormwater Discharges from Development)). (4) EPA agrees that hot spots of pollution should be avoided, particularly in densely-populated areas. In fact, the Final Permit is expected to result in lower stormwater runoff throughout the DC MS4 Permit Area, and not to cause additional concentrations of stormwater pollution. (5) EPA agrees that the Permit should seek as much pollution reduction as can be feasibly achieved from all sources, and believes that the Final Permit accomplishes that goal.

- c. The Commenter believes that the potential for an adjustment should be applied upfront to the base retention requirement on a project-by-project basis. As currently drafted, the potential for an adjustment to the performance standard is triggered only after it has been determined that the 1.2” standard cannot “technologically be met based on physical site constraints,” and would then apply only to the (likely) less-costly offsite mitigation or payment in lieu requirements.

EPA Response: The Commenter appears to be referencing the provision for off-site mitigation and/or fee-in lieu for all facilities at Section 4.1.3 of the Permit (Section 4.1.1.d of the Draft Permit). The Commenter is correct that such provision is triggered only when projects cannot meet otherwise applicable stormwater management performance standards, and not as an equal alternative to those standards. As discussed in greater detail at Section 4.1.3 of today’s Fact Sheet, this provision is included in the Permit in acknowledgement that meeting the performance standard in 4.1.1 may occasionally be challenging, and because EPA understands that an offset system is critical to situations when on-site stormwater control measures are not feasible. *See e.g.*, National Research Council, *Urban Stormwater Management in the United States* (2009). EPA also notes that the off-site mitigation and/or fee-in-lieu program developed by the District will be subject to public notice, and the Agency encourages the Commenter to provide input in this process.

- d. The Commenter states that the Draft Permit does not contain sufficient guidance on the specifics of quantifying “environmental benefits” of various development types, and that Section 4.1.1.a should include a requirement that, within a one-year period of the effective date of the Permit, the District, with the assistance of the EPA, will establish environmental performance metrics and the corresponding reductions in standards for “redevelopment, high density development, transit-oriented development and other development patterns.”

EPA Response: EPA believes that the performance standard for stormwater discharges from development (Section 4.1.1 of Final Permit) sufficiently balances the need for a prescriptive program against the need for flexibility by the District. Also, EPA notes that Section 4.1 of the Final Permit has been clarified to cover standards for stormwater discharges from all “development.” That term is now defined as “the undertaking of any activity that disturbs a surface area greater than or equal to 5,000 square feet.” *See* Section 9 (Permit Definitions).

- e. The Commenter is concerned that if meeting the performance standards outlined in the current Permit is cost-prohibitive, it will deter development of lower revenue-generating developments and/or drive development out of the District. In order to prevent this, the Commenter suggests that if it is not feasible to meet the standard using LID or green infrastructure to the MEP, the Permit should allow a step-down or “off ramp” to traditional BMPs for water quality, that is, approaches (*e.g.*, sand filters) that filter pollutants but ultimately drain into the MS4. If meeting the water quality goal through a combination of LID/green infrastructure and BMPs is still not feasible, then a waiver into an offsite mitigation or payment-in-lieu program should be permitted.

EPA Response: EPA believes that off-site mitigation is a feasible alternative when off-site locations have adequate capacity. The Final Permit (Section 4.1.3, Off-Site Mitigation and/or Fee-in Lieu for all Facilities) requires that the District public-notice any off-site mitigation and/or fee-in-lieu programs. EPA encourages the Commenter to participate in this process and make his points at that time. The Permit also requires that the Permittee submit the program to EPA for review and comment.

In addition to the foregoing safeguards, EPA notes that the Permit expands the minimum requirements for an off-site mitigation and/or fee-in-lieu program by requiring, among other things, that the program include at a minimum: (1) Establishment of baseline requirements for on-site retention and for mitigation projects; (2) Specific criteria for determining when compliance with the baseline requirement for on-site retention cannot technically be met based on physical site constraints; (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; and (4) The necessary tracking and accounting systems to implement this section, including that original and off-site practices stay in place and are adequately maintained. *See* Section 4.1.3 of Final Permit.

- f. The Commenter believes that the MEP standard should include a cost feasibility component, and he proposes that the District establish a ceiling for stormwater costs as a percentage of the project construction budget. He also indicates that Section 4.1.1.a of the Permit should include an adequate study period for determining what the ceiling should be, and he cites analogous cost feasibility standards.

EPA Response: First, EPA notes that the Permit reflects what EPA, as the Permit writer, determines are the maximum extent practicable pollutant reductions that the Permittee can achieve with respect to its discharges. Therefore, MEP language is not included in the Permit itself but rather in the Fact Sheet; it is the responsibility of the Permit writer—and not the Permittee—to make this determination.

Second, the separate “Reporting on Funding” required by the Draft Permit was eliminated, as discussed further in today’s Fact Sheet. However, 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. *See* Section 6.2.1.d of Final Permit. While the District is required to meet the provisions of the Permit, how it chooses to allocate resources to comply with the Permit is an internal decision beyond a demonstration of basic budget considerations as outlined in the Permit itself.

- g. The Commenter recommends that EPA should evaluate and consider Permitting a lower threshold for allowing certain kinds of development that provide important social benefits that would otherwise have to sacrifice important amenities that provide substantial economic value and quality of life benefits to use less expensive, traditional BMPs in order to achieve full on-site retention.

EPA Response: The Permit and regulations authorizing the Permit are applied to effectively prohibit pollutants into the MS4 system. The controls, procedures and management practices included in the SWMP are implemented to meet this requirement. Ancillary benefits which

occur are of additional benefit, but the primary objective of the SWMP is to comply with existing water quality standards.

- h. The Commenter believes that the Permit should include an incentive program to encourage projects to exceed the applicable standard, whether it is the full 1.2” or a lower standard due to quantifiable environmental benefits. Incentives could include density bonuses, fast tracking and fee waivers. Moreover, the Commenter recommends that the Permit should establish a trading system for stormwater control credits that would be awarded to projects that exceed site requirements. These credits could be sold to redevelopment projects on more difficult to develop sites within the same watershed, where onsite mitigation is not feasible (but not including development on greenfields or in areas of high sensitivity).

EPA Response: The District has provided and continues to provide incentives programs to implement its various stormwater management activities. EPA encourages the Commenter to participate in the public involvement process during the update of the Stormwater Regulations.

- i. The Commenter suggests that EPA should undertake or commission a substantial cost benefit modeling study for green infrastructure and other on-site retention techniques. The proposed study should be designed with the input and oversight of a panel of all stakeholders, including environmentalists, developers, engineers, and the government, and should look at 10 or so project types across a range of soil conditions and consider 3 or 4 retention standards. Moreover, the study should consider both the technology and space costs of various LID and green infrastructure approaches, as well as the cost savings to municipalities.

EPA Response: The Commenter’s suggestions is outside the scope of this Permit; however, EPA is separately engaged in a national rulemaking to establish a program to reduce stormwater discharges from new development and redevelopment and make other regulatory improvements to strengthen its stormwater program. See EPA, *Proposed National Rulemaking to Strengthen the Stormwater Program* (last visited March 30, 2011) (available at: <http://cfpub.epa.gov/npdes/stormwater/rulemaking.cfm>). EPA encourages the Commenter to participate in this process.

- j. As to retrofitting requirements, the Commenter believes that the Permit is vague as to who will be affected by such requirements—*i.e.*, public property and rights of way, private development, or both. Further, he suggests that the Permit is not clear as to how payment-in-lieu or offsite mitigation applies to public property unless the intent is that private development can have the option to mitigate in public rights of way or that payment-in-lieu can be used for public retrofit projects. On the other hand, if retrofit requirements are to be applied to private development, then that should also be made clearer, and an entirely different set of compliance standards will need to be established.

EPA Response: EPA has rewritten the portion of the Permit dealing with retrofits, Section 4.1.5, to more clearly require, *inter alia*, the following: (1) It is the District’s responsibility to develop

a retrofit program; (2) the District will target major federal landholders; (3) The District shall estimate load and volume reductions; and (4) A certain number of retrofits must be implemented through the overall DC Retrofit program. The Commenter is correct that the Permit is not overly prescriptive as to who must perform the retrofits, but that is intentional. As discussed in today's Fact Sheet, EPA believes that the District is in the best position to develop performance metrics for retrofits, which is a Permit requirement. For example, the District may establish an incentive program to encourage private landowners to perform retrofits on their properties. Also, the Permit requires that the public be invited to participate in the development of these programs as well as the retrofit program. EPA encourages the Commenter to participate in this process.

With regard to the off-site mitigation and/or fee-in lieu program for all facilities, the Permit is also not overly prescriptive, although it does require the District to public-notice the program and submit it to EPA for review and comment. However, the Permit does establish some parameters as minimum requirements for this type of program, including: (1) Establishment of baseline requirements for on-site retention and for mitigation projects; (2) Specific criteria for determining when compliance with the baseline requirement for on-site retention cannot technically be met based on physical site constraints; (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; and (4) The necessary tracking and accounting systems to implement this section, including that original and off-site practices stay in place and are adequately maintained. Section 4.1.3 of Final Permit.

- k. The Commenter states that geat cities are necessary to protect water quality. Sprawl can be reduced if cities are desirable places to live.

EPA Response: EPA agrees with these points.

Exhibit B

DC Water Comments on Draft MS4 Permit

Draft NPDES Permit No. DC0000221

**AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
MUNICIPAL SEPARATE STORMWATER 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, and related reports, effluent limitations, monitoring requirements and other conditions set forth in Parts I through IX herein.

The effective issuance date of this permit is: _____.

This permit and the authorization to discharge shall expire at midnight, on: _____.

Signed this _____ day of _____, 2010.

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

PERMIT FOR THE DISTRICT OF COLUMBIA=S
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. SOURCE IDENTIFICATION
 - 3.1 Significant Changes Creating Potential Pollutant Sources
 - 3.2 Outfalls
 - 3.3 Addressing Potential Pollutant Sources

4. STORMWATER MANAGEMENT PROGRAM (SWMP)

Table 1: Required Program Stormwater Elements

 - 4.1 Standards for Long-Term Stormwater Management
 - 4.1.1 Standards for New and Re-development
 - 4.1.1.a Performance Standard for Non-federal Facilities
 - 4.1.1.b Performance Standard for Federal Facilities
 - 4.1.1.c Policy Consistency, Site Plan Review and Verification
 - 4.1.1.d Off-Site Mitigation.
 - 4.1.1.e Green Landscaping Incentives Program
 - 4.1.2 Retrofit Program for Existing Discharges
 - 4.1.3 Tree Canopy
 - 4.1.4 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 Plan for 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 Operation and Management/Solids and Floatables Reduction
- 4.3.6 Streets, Alleys, Roadways and Sidewalks
- Table 2: 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 Plan for Commercial and Institutional Areas
- 4.4.1 Inventory of Critical Sources and Source Controls
- 4.4.2 Inspect Critical Sources
- 4.4.3 Compliance Assurance
- 4.5 Management Plan for Industrial Facilities and Spill Prevention
- 4.6 Stormwater Management for Construction Activities
- 4.7 Management Plan for Illicit Discharges and Improper Disposal
- 4.8 Flood Control Projects
- 4.9 Public Education and Participation Program
- 4.9.1 Education and Outreach
- 4.9.2 Measurement of Impacts
- 4.9.3 Recordkeeping
- 4.9.4 Public Involvement and Participation

5. MONITORING AND ASSESSMENT OF CONTROLS

- 5.1 Revised Monitoring Plan
- Table 3: Monitoring Parameters
- 5.2. Interim Monitoring
- 5.2.1. Wet Weather Discharge Monitoring
- Table 4: Monitoring Stations
- 5.2.2 Storm Event Data
- 5.2.3 Sample Type, Collection, and Analysis
- 5.2.4 Sampling Waiver
- 5.3 Monitoring Plan Implementation
- 5.4 Dry Weather Monitoring
- 5.4.1 Dry Weather Screening Program
- 5.4.2 Screening Procedures
- 5.4.3 Follow-up on Dry Weather Screening Results
- 5.5 Area and/or Source Identification Program
- 5.6 Flow Measurements
- 5.7 Monitoring and Analysis Procedures

- 5.8 Reporting of Monitoring Results
- 5.9 Additional Monitoring by the Permittee
- 5.10 Retention of Monitoring Information
- 5.11 Record Contents

1.

REPORTING REQUIREMENTS

Table 5: Permit Deliverables

- 6.1 Discharge Monitoring Reports
- 6.2 Annual Report/Implementation Plan (Consolidated)
 - 6.2.1 Annual Report
 - 6.2.2 Implementation Plan
 - 6.2.3 Annual Report/Implementation Plan Revisions
 - 6.2.4 Signature and Certification
 - 6.2.5 Effect of Non-Submittal or Non-Signature
 - 6.2.6 EPA Approval

Table 6: Stormwater Management Program Components

- 6.3 Upgraded SWMP and MS4 Permit Application

7. STORMWATER MODEL

8. OTHER APPLICABLE PROVISIONS

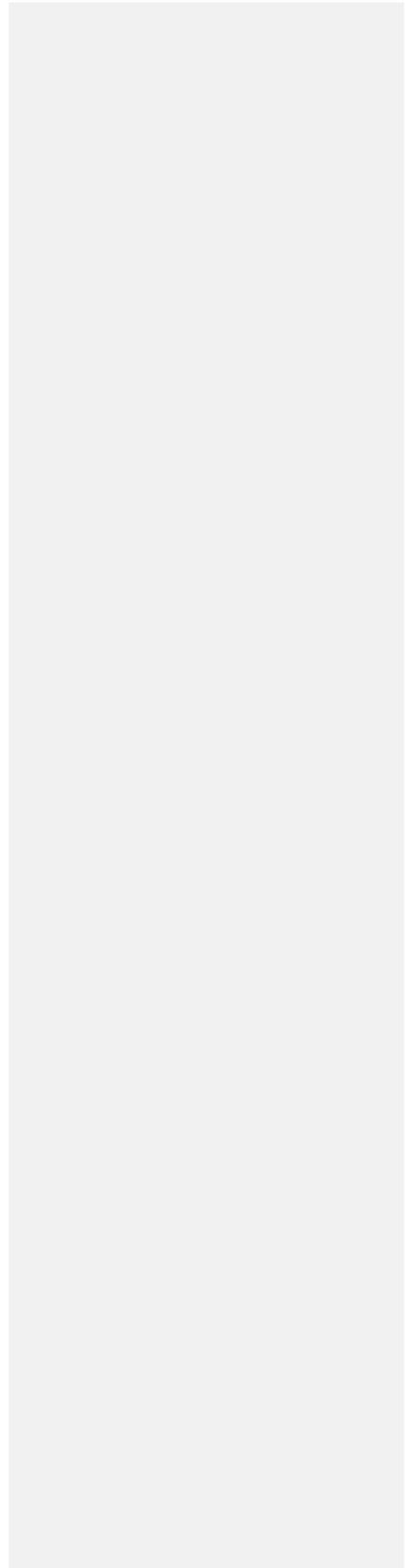
- 8.1 WQS and TMDL WLA Implementation Plans and Compliance Monitoring
 - 8.1.1 Potomac River TMDL Implementation Plan
 - 8.1.2 Anacostia River Trash TMDL Implementation Plan
- 8.2 Compliance Monitoring with Water Quality-Based Effluent Limitations
- 8.3 Hickey Run

9. STANDARD PERMIT CONDITIONS FOR NPDES PERMITS

- 9.1 Duty to Comply
- 9.2 Inspection and Entry
- 9.3 Civil and Criminal Penalties for Violations of Permit Conditions
- 9.4 Duty to Mitigate
- 9.5 Permit Actions
- 9.6 Retention of Records
- 9.7 Signatory Requirements
- 9.8 Oil and Hazardous Substances Liability
- 9.9 District Laws, Regulations and Ordinances
- 9.10 Property Rights
- 9.11 Severability
- 9.12 Transfer of Permit
- 9.13 Construction Authorization
- 9.14 Historic Preservation
- 9.15 Endangered Species
- 9.16 Toxic Pollutants
- 9.17 Bypass

- 9.17.1. Bypass not exceeding limitations
- 9.17.2. Notice
- 9.17.3. Prohibition of bypass
- 9.18 Upset
- 9.19 Reopener Clause for Permits
- 9.20 Duty to Reapply

10. PERMIT DEFINITIONS



1. DISCHARGES AUTHORIZED UNDER THIS PERMIT

1.1 Permit Area

This permit covers all areas, including federally owned lands, within the corporate 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 (hereinafter, “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, 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 impaired and that the requirements of the federal Clean Water Act, 33 U.S.C. §§ 1251 et seq., and EPA regulations are met.~~ [Note: delete the indicated text because applying the controls required in the permit should be enough – MS4s are not required to comply with numeric WQS at every outfall for each of these discharges]

1.3 Limitations to Coverage

1.3.1 Non-stormwater Discharges

The Permittee, as defined herein, shall effectively prohibit in its applicable regulations/ordinances 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 featuring best management practices to the maximum extent practicable toward complying~~ with the Clean Water Act and corresponding stormwater NPDES regulations, 40 C.F.R. Part 122, ~~to meet the following requirements:~~

~~1. Effectively prohibit pollutants in the stormwater discharges or other unauthorized discharges into the MS4 System as necessary to comply with existing District of Columbia Water Quality standards (DCWQS); [This is unclear. To the extent it would require the MS4 discharges to meet WQS, there is no way the District can guarantee that its storm water discharges will meet all WQS; such a requirement is inconsistent with EPA’s recognition in the Fact Sheet that “EPA is aware that many Permittees, especially those in highly urbanized areas such as the District, will be unable to attain all Water Quality Standards within the first several MS4 permit cycles. Rather, the attainment of water quality criteria is an incremental process, consistent with 402(p)(i)(B) of the Clean Water Act ..., so long as permittees reduce the discharge of pollutants to the maximum extent practicable (MEP) within each permit cycle.” Draft Fact Sheet at 4.]~~

~~2. Be consistent with applicable waste load allocations (WLAs) for each 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 [See explanation above – this general language is inconsistent with the BMP/MEP approach explained in the Fact Sheet and inconsistent with later parts of this permit because it could be misread to suggest immediate compliance is required as opposed to compliance over time pursuant to an iterative implementation plan featuring BMPs to the MEP.]~~

~~3. No increase in pollutant loadings from discharges from the MS4 may occur to receiving waters. [Note: This is not a proper legal requirement and too general/vague for this MS4 permit. Normal variability in sampling concentrations and weather patterns from year-to-year could yield higher loadings despite increased BMP implementation. Accordingly, this provision should be deleted.]~~

~~Compliance with all performance standards and provisions contained in this Permit shall constitute progress toward compliance with DCWQS. [Note: This makes no sense -particularly in relation to the language above proposed for deletion that requires compliance with DCWQS - and should be deleted.]~~

2. LEGAL AUTHORITY, RESOURCES AND STORMWATER PROGRAM ADMINISTRATION

2.1 Legal Authority

1. The Permittee must have adequate legal authority to control discharges to and from the Municipal Separate Storm Sewer System (MS4) ~~in accordance with this Permit order to prevent or reduce the discharge of pollutants to achieve water quality objectives.~~ Any deficiencies in the legal authority to carry out these requirements shall be remedied as soon as possible 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. No later than ~~one year~~ 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 Permit, including the Permittee’s then-current SWMP at least as protective of water quality as the federal Clean Water Act and its implementing regulations require. [The legal compliance requirements from the law and regulations have been translated through the District’s SWMP so the SWMP is the proper reference].

3. The Permittee shall use its existing legal authority to control discharges to and from the Municipal Separate Storm Sewer System (MS4) consistent with the requirements of this Permit in order to prevent or reduce the discharge of pollutants to achieve water quality objectives. To the extent deficiencies can be addressed through regulation or other Executive Branch action, the Permittee shall initiate the process to remedy such deficiencies within 120 days of becoming aware of such deficiency. Deficiencies that can only be addressed through legislative action shall be remedied as expeditiously as possible in accordance with the District’s legislative process. Any changes to or deficiencies in the legal authority shall be explained in each Annual Report.

4. ~~Nothing herein is intended~~The intent of this provision is not to prohibit to limit the Permittee's ability to enter into inter-jurisdictional agreements with other District agencies and/or other ~~entities~~jurisdictions affected through this Permit. [Unclear what other "jurisdictions" EPA has in mind here]

5. Review and revise, where applicable, building, health, road and transportation, and other codes and regulations to remove barriers to, and facilitate, as appropriate, 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. [Note: The insertion of "as appropriate" is warranted to reflect the balancing of public/social needs that must occur when seeking to integrate updates to the storm water code with building, health, transportation, and other public health and safety codes]

2.2 Fiscal Resources

Subject to the limitations in Section 6.2.2.i, ~~The~~ Permittee, including all agencies and departments of ~~the District~~DC as specified in section 2.3 below, shall provide adequate finances, staff, equipment, and support capabilities to implement the existing Stormwater Management Program (SWMP) dated February 19, 2009 and each approved annual implementation plan~~the provisions of this permit~~. 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

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 (WASA).

Each named entity is responsible for complying with those elements of the permit within its jurisdictional scope and authorities as defined in the 2000 MS4 Task Force Memorandum of Understanding (2000 MOU).

2. DDOE shall coordinate, and all agencies, offices, departments and authorities shall implement provisions of the ~~2000 MOU existing MS4 Task Force Memorandum of Understanding (MOU) dated 2000~~, updated matrix of responsibilities (January 2008), and ~~other institutional agreements, including but not limited to~~ activities identified in the Upgraded Stormwater Management Plan (Feb. 19, 2009), as necessary to coordinate compliance activities among agency partners to implement the provisions of this Permit, ~~including and~~ the current SWMP. DDOE's major responsibilities ~~are under these MOUs and institutional agreements shall include:~~

- a. 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.
- b. Providing technical and administrative support for the MS4 Task Force and other committees established to implement this Permit
- c. 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.
- d. Coordinating the completion and submission of all deliverables including annual reports and plans required by the MS4 Permit.
- e. Reviewing and processing requests from the MS4 Task Force agencies for reimbursement from the Stormwater Enterprise Fund for Permit-related tasks.
- f. Projecting revenue needs to meet MS4 Permit requirements, overseeing the District's stormwater fees to fulfill revenue needs, and coordinating with WASA to ensure the District's stormwater fee is collected.
- g. Making available to the public and other interested and affected parties, the opportunity to comment on the MS4 stormwater management program.

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, as the Permittee deems appropriate, 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. SOURCE IDENTIFICATION

3.1 Significant Changes Creating Potential Pollutant Sources

The Permittee shall continue to compile and submit pertinent information on known or potential pollution sources, ~~as soon as practicable after it becomes aware of such information.~~ [Note: paragraph below properly requires submittal of this info with the Annual Report] including significant changes in:

- land use activities,
- population estimates,
- runoff characteristics,
- major structural controls,
- landfills,
- publicly owned lands, and
- 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. [Note: this definition is far too vague] 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.

3.2 Outfalls

To the extent not already otherwise reported, no later than 18 months after issuance of this Permit, the Permittee shall provide an up-to-date 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.~~ [Note, this does not belong here regarding outfalls – also, “facility” is not defined]

3.3 Addressing Potential Pollutant Sources

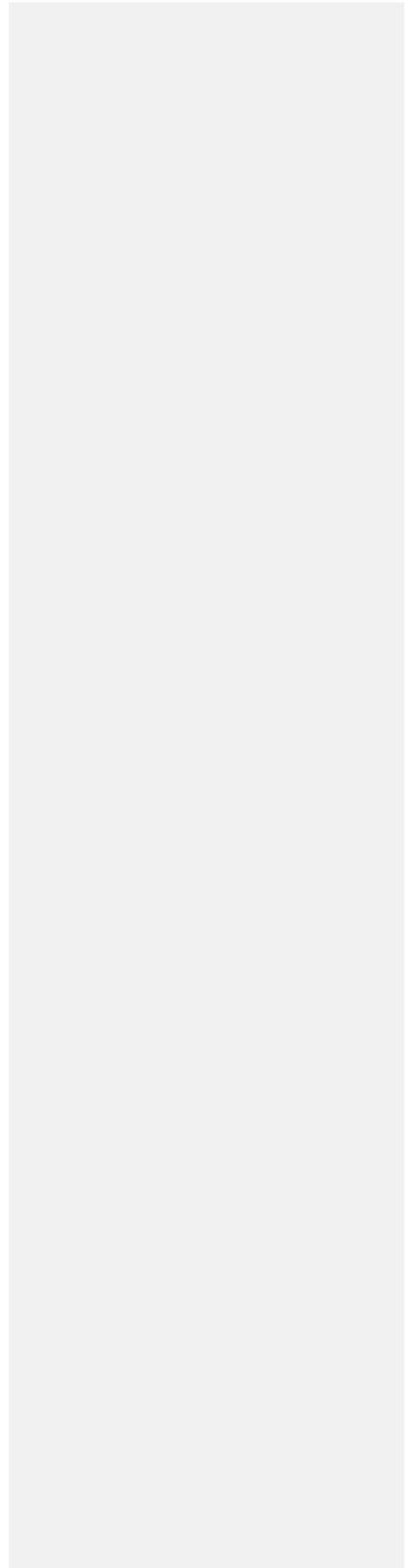
The Permittee shall implement controls to ~~control, minimize and prevent~~ discharges of pollutants, including but not limited to Bacteria (E. coli), Total Nitrogen, Total Phosphorus, Total Suspended Solids, Cadmium, Copper, Lead, Zinc, and Trash, to receiving waters using best management practices to the maximum extent practicable. Controls shall be designed to prevent and restrict 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 ~~control, reduce or eliminate~~ [Note: we will never eliminate such pollutants] these pollutants shall be documented in subsequent Annual Reports and in revisions to the Stormwater Management Plan dated February 19, 2009.

4. STORMWATER MANAGEMENT PROGRAM (SWMP)

The Permittee shall continue to implement, assess and upgrade the controls, procedures and management practices, described in Part 4 herein and in the current Upgraded SWMP dated February 19, 2009, all requirements of which are incorporated herein, in order to ~~reduce or eliminate control~~ the pollutant discharges consistent with the requirements of this Permit ~~load, and to protect or restore water quality standards and meet the requirements of the Clean Water Act, its implementing regulations, and relevant District of Columbia laws, regulations and ordinances.~~ The Stormwater Management Program is comprised of all requirements in this Permit, including the program elements listed in Table 1 below. The ~~SWMP set of BMPs specified in the Permit can should~~ be adapted and enhanced as opportunities for improvement arise ~~change, as long as interim compliance deadlines for WLAs are achieved.~~

The measures required below 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 1
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), November 27, 2007 and August 2008 Letters of Agreement [Note: it is unnecessary to reference a letter of agreement as the substantive requirements are imposed elsewhere in the permit]
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)(1)
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)(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)(C)(2)

4.1

Standards for Long-Term Stormwater Management

The Permittee shall continue to develop, implement, and enforce a green technology program in accordance with this Permit and the Permittee's ~~Upgraded~~ SWMP (Feb. 19, 2009) that integrates green technology stormwater management practices at the site and neighborhood level through policies, regulations, ordinances and incentive programs in order to protect water quality across the District. The green technology practices shall be designed to mimic pre-development site hydrology to the maximum extent practicable through use of on-site stormwater retention measures (e.g., harvesting and using, infiltrating and evapotranspiring runoff).

In accordance with Section 6.2 herein, the first Consolidated Annual Report submitted within this Permit term shall establish a baseline for the following: (1) percentage of impervious cover within the District; and (2) number and square footage of green roofs as defined herein within the District. In subsequent Consolidated Annual Reports, report on the percentage of decreased impervious cover for cover subject to BMPs? and increased number and square footage of green roofs and other practices that infiltrate, evapotranspire and harvest stormwater within the District.

4.1.1

Standards for New and Redevelopment

Clarify square footage trigger as it is explained differently below.

The Permittee shall require stormwater entering the MS4 from new development and redevelopment to be controlled as follows: [Note: EPA should not impose such requirements without a very careful understanding of their impact on redevelopment through a detailed analysis of recent public and private redevelopment projects].

The Permittee shall require stormwater entering the MS4 from new development and redevelopment [add a trigger point for projects that would fall under the current versus new regulations – in other words, add a provision authorizing the District to grandfather projects already in the pipeline under the current rules as Maryland recently did] that disturbs land [Impervious area?] greater than or equal to 5,000 square feet, thereby triggering requirements for stormwater management plan review and approval as part of the District's permitting process, to be controlled as follows:

[Note: WASA believes a clarification is warranted that this does not apply to utility maintenance, repair and replacement activities]

4.1.1.a

Performance Standard for Non-federal Facilities

No later than ~~one~~ three years [Note: Okay if EPA wants federal facilities to comply sooner – will help the District phase in the new requirements] 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 either of the following performance standards [These standards will be very challenging for most developments, including federal facilities; a better approach would be to use an escalating requirement (0.75 inches beginning three years from issuance, once it is demonstrated that 0.75 inches is attainable then 1.0 five years after that, and then evaluate whether a higher or lower requirement is appropriate thereafter)]:

- i. Require the design, construction and maintenance of stormwater controls to achieve on-site retention of "1.2" volume 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 new development and redevelopment greater than 5,000 square feet in the District; or
- ii. Require the design, construction and maintenance of stormwater controls to achieve the retention of the predevelopment runoff volume 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 new development and redevelopment greater than 5,000 square feet in the District. Determination of the predevelopment runoff volume must be based on a full hydrologic and hydraulic analysis of the site that ensures maintenance of predevelopment hydrographs (volume, rate and duration) for the 1-, 2-, 10- and 100-year 24-hour storm events. ~~The modeled predevelopment condition must be meadow.~~ [Note: This is arbitrary and capricious; it is clearly overkill and an indirect way to make the above proposed control requirements even more stringent – again, without any understanding of the impact of this control requirement].-

4.1.1.b. Performance Standard for Federal Facilities

The District shall ensure through requirements for design, construction and maintenance that federal facilities undertaking new or redevelopment of 5,000 square feet or more comply with one of the following: [Note: there is no compliance schedule with this requirement – it is likely that the District will need several years to put these requirements in place but the permit can require that the EPA and District request that federal facilities voluntarily meet these requirements until the District adopts mandatory rules to implement these requirements.]

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i. Adopt the design, construction and maintenance of stormwater controls to achieve on-site retention of 1.7” 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 new development and redevelopment greater than 5,000 square feet in the District; or

ii. Adopt the design, construction and maintenance of stormwater controls to achieve the retention of the predevelopment runoff volume 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 new development and redevelopment greater than 5,000 square feet in the District. Determination of the predevelopment runoff volume must be based on a full hydrologic and hydraulic analysis of the site that ensures maintenance of predevelopment hydrographs (volume, rate and duration) for the 1, 2, 10 and 100 year 24-hour storm events. The modeled predevelopment condition must be meadow. [While we believe it impracticable, no one should object if EPA wants to impose this arbitrary pre-development presumption on federal facilities.]

~~Discharges controlled in accordance with the standards described in Part 4.1.1.a and 4.1.1.b shall be considered to be as stringent as necessary to ensure that the discharges do not cause or contribute to an excursion above any (1) applicable TMDL WLAs; or (2) DC WQS, whichever is more stringent, so long as the Permittee can demonstrate quantitatively that the Permit conditions meet the WLA.—~~

~~—
In addition, pollutants in the discharge must be controlled to meet the standards contained in section 1.4 herein, unless such discharges are fully compensated for by a program for implementing in-lieu or off-site mitigation credits. [Note: these two paragraphs are unnecessary. The Permit restates water quality requirements far too many times, which invites inconsistent statements of the requirements. Moreover, the wording here is inconsistent with the requirement of BMPs to the MEP. Also, this language is unclear and could be misread to require the District to offset (fees in lieu of) discharges that don't meet the effluent limits in Section 1.4]~~

4.1.1.c. Code and Policy Consistency, Site Plan Review and Verification

For both 4.1.1.a and 4.1.1.b 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 on-site retention, as appropriate. The District must also have 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.

4.1.1.d. Off-Site Mitigation

Within ~~one~~two years of the effective date of this Permit, the District shall implement an off-site mitigation and Fee-in-Lieu program to be utilized when projects cannot meet stormwater management standards as defined in Sections 4.1.1.a and 4.1.1.b. The program shall include at a minimum: establishment of baseline requirements to be applied for mitigation projects, specific criteria for determining when full compliance with the performance standard cannot ~~practicably~~technically be met based on physical site constraints, affordability, cost-effectiveness and other specific procedures/considerations such as historic preservation for evaluating when ~~an~~ off-site mitigation is not feasible and in-lieu credits must be substituted to satisfy this requirement. The requirements for off-site mitigation and in-lieu payments shall be sufficient to encourage on-site stormwater management as a first option for meeting stormwater performance. Further, the requirements for off-site mitigation shall be established to meet or exceed the stormwater performance requirements for each project.

The Permittee mitigation program may allow adjustments to retention standards for redevelopment, high density development, transit-oriented development and other development patterns in non-federal facility areas for which the District can quantify water quality, water quantity, climate change adaptation or other environmental benefit(s). All payments in lieu must be deposited in the District's Stormwater Enterprise Fund for use by the District to implement the terms of this Permit.

4.1.1.e 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.

4.1.2 Retrofit Program for Existing Discharges

1. Performance Standard. Within one year of the effective date of this permit for federal projects and three years for non-federal projects, establish performance metrics for retrofit projects. The starting point for the performance metrics shall be the standard in 4.1.1.a and may include metrics: to count square footage proportionate to the percentage of the retention standard achieved for projects that retain less than that standard; to partially count a proportion of square footage for projects that provide stormwater treatment benefits other than retention for specific TMDL pollutants of concern; and to count removal of impervious surface. Specific site conditions (soils, depth to groundwater, site contamination, the presence of buried utilities, etc.) may constitute justifications for setting a performance standard at something less than the standard in 4.1.1.a. Specific site analysis to make this determination shall be required. As with new and redevelopment, the District may apply off-site mitigation or payment-in-lieu options. The DC Retrofit Program shall manage runoff from 18,000,000 square feet of impervious surfaces ~~by the end of~~ the Permit term. A minimum of 3,600,000 square feet of this objective must be in transportation rights-of-way and may include the tree plantings required in Section 4.1.3.1.

2. The DC Retrofit Program shall include a list to be organized by the three major watersheds in the District (Anacostia, Potomac and Rock Creek).

3. Estimate the potential pollutant load and volume reductions achieved through the DC Retrofit List for the following pollutants: Bacteria (E. coli), Total Nitrogen, Total Phosphorus, Total Suspended Solids, Cadmium, Copper, Lead, Zinc, and Trash.

4. The District, with facilitation assistance from EPA Region III, will also target major Federal landholders, such as the General Services Administration and the Department of Defense, for outreach and education, with the objective of identifying retrofit opportunities and establishing agreements to comply with the mandatory performance standards in Paragraph 4.1.1.b.-

4.1.3 Tree Canopy. No later than one year following issuance of this Permit, the Permittee shall develop a strategy to reduce the discharge of stormwater pollutants by expanding tree canopy throughout the city. The Permittee shall identify locations throughout the District where tree plantings and expanded tree boxes are technically feasible and appropriate. The Permittee shall identify/commit to specific schedules for implementation at locations throughout the District, with highest priority given to projects that offer the greatest stormwater retention potential. This effort shall include, at a minimum:

1. Performance Standard. Achieve a minimum annual tree planting rate of at least 4,150 plantings annually within the DC MS4 Permit Area. However, the Permittee shall be in compliance if the cumulative five-year total tree planting number is met. [Note: the District should clarify what its tree planting commitment is here and, ideally, make it a cumulative number of plantings over the five year permit term rather than annual commitments; also, the District should commit herein to fewer trees than it may have planned in a non-regulatory program to give it a margin of compliance safety if the program runs into difficulties] Ensure that trees are planted and maintained, including requirements for tree boxes, in the manner that will achieve optimal stormwater retention and tree survival rate within the District of Columbia and that such planting complies with the DDOT, Urban Forestry Administration Guidelines, http://app.ddot.dc.gov/ufo/information/planting_guides.shtm.

2. Annually document the total trees planted and make an annual estimate of the volume of stormwater that is being removed from the MS4 system (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.

4.1.4. Green Roof Projects. As part of the green technology program plan, identify all District-owned locations throughout the District where green roof projects are practicable/technically-feasible and appropriate and commit to specific schedules for implementing these selected projects at specific locations, with highest priority given to projects that offer the greatest stormwater capture potential. The Permittee shall:

1. Complete/Perform a preliminary structural assessment of ~~all~~ District properties maintained by DRES and slated for redevelopment to determine current roof conditions and the technical and financial feasibility for green roof installation, on an ongoing basis.

2. Performance Standard. ~~As Upon completion of~~ the structural assessments are completed each year, the Permittee shall, by the end of the permit term, identify a schedule for/commit to installing 350,000 square feet of green roofs ~~over the Permit cycle~~ on District properties ~~during the term of the Permit~~ (including schools and school administration buildings) ~~[[Delete this or move it to the Fact Sheet: in order to make progress toward the Mayor's goal of achieving 20% green roof coverage in the District in 20 years]].~~

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 system (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 (new and redevelopment, and retrofits) to include maintenance needs, inspection frequencies, estimated maintenance frequencies, and a tracking systems to document relevant information. Provide training to all relevant municipal employees and contractors, with regular refreshers, as necessary.

In addition, the Permittee shall ensure that every new building and 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 including through use of off-site mitigation and fees in lieu of the retention performance standard.

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. Beginning with the fourth year of the Permit, the District must maintain an electronic inventory of practices on private property to include this information.

4.2.3. Stormwater Management Guidebook and Training

4.2.3.a No later than ~~48~~30 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.b The Permittee shall continue to provide key industry, regulatory, and other stakeholders with information regarding objectives and specifications of green technology practices contained in the Stormwater Management Guidebook through a training program. The Stormwater Management training program will include at a minimum the following:

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

4.3 Management Plan 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 WASA to implement an effective response plan for overflows of the sanitary sewer system into the MS4. The response plan 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 promptly within two hours to overflows for containment.
3. Notifying WASA appropriate sewer and, if appropriate, public health agencies when the sanitary sewer overflows to the MS4 as soon as practicable but no later than within 24 hours from discovery.

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 coverage under the applicable EPA Construction General Permit for construction activities and projects that are covered therein.

~~1. Covered under one (or more) Capital Improvement Projects (including but not limited to street repaving, new streets, channel clearing) or contract, and that individually or cumulatively disturb 1 acre or more of land; or~~

~~-~~

~~2. Less than 1 acre, but are part of a larger common plan of development that in total disturbs 1 or more acres of land; or~~

~~-~~

~~3. Linear construction project(s) that disturb 1 or more acres of land.~~

4.3.3 Vehicle Maintenance/Material Storage Facilities/ Municipal Operations.

The Permittee shall implement stormwater pollution prevention measures to the maximum extent practicable 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.

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 chemical and irrigation input landscapes, in accordance with the provisions of this permit, procedures and practices described in the February 19, 2009 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:

1. Pesticides are used only if monitoring indicates they are needed according to established guidelines; [Note: this might preclude routinely scheduled applications pursuant to an IPMP]
2. 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).
3. Treatments are made with the goal of removing only the target organism;
4. Pest controls are selected and applied in a manner that minimizes risks to human health, beneficial, non-target organisms, and the environment;
5. No pesticides or fertilizers are applied to an area ~~immediately prior to,~~ during, or immediately after a rain event, or when water is flowing off the area;
6. No banned or unregistered pesticides are stored or applied;
7. All staff applying pesticides are certified or are under the direct supervision of a pesticide applicator certified in the appropriate category;
8. Procedures are implemented to encourage the retention and planting of native and/or non-invasive, naturalized vegetation to reduce water, pesticide and fertilizer needs;
9. 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
10. Landscapes that maximize on-site retention of stormwater, while minimizing mowing, chemical inputs and irrigation are given preference for all new landscape installation.

The Permittee shall ensure that its agencies partner with one another for the purpose of ensuring that pesticide and fertilizer use within its jurisdiction does not threaten water quality.

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

The Permittee 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.

The Permittee 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.

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 the Clean Water Act.

4.3.5 Storm Drain Operation and Management/Solids and Floatables Reduction

The Permittee shall conduct maintenance activities at all new and existing catch basins throughout the life of the Permit.

~~The Permittee shall comply with the Anacostia River Trash TMDL implementation plan in Part 8 of this Permit and apply the technologies and other activities developed in the Anacostia River Trash TMDL throughout the entire MS4 Permit Area. The Permittee shall continue to report the progress of trash reduction in the Consolidated Annual Report. [Note: unnecessary here – addressed in Part 8]~~

4.3.6 Streets, Alleys, Roadways and Sidewalks

The Permittee shall comply with the following performance standards:

1. 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. ~~[Note: a better approach would be for the District to submit a cleaning schedule with the annual implementation plan, which EPA would approve]~~ The Permittee shall continue to use strategies for coordinated catch basin cleaning and street-sweeping that will optimize reduction of stormwater pollutants. Street sweeping shall be conducted in accordance with the following schedule: ~~[The District should submit a schedule in each annual implementation plan. The District may need to adjust these frequencies during an implementation year with EPA's approval to respond to collection system priorities]~~

TABLE 2
Street Sweeping

Required Program Application Element	Regulatory Reference
Adequate Legal Authority	40 C.F.R. § 122.26(d)
Green technology stormwater management practices, which incorporate technologies and practices across District activities.	Chapter 5 of Title 21 (Municipal Regulation Pollution), November 2008 Letters of Agreement unnecessary to refer as the substantive requirements elsewhere in the permit
Existing Structural and Source Controls	40 C.F.R. § 122.26(d)
Roadways	40 C.F.R. § 122.26(d)
Pesticides, Herbicides, and Fertilizers Application	40 C.F.R. § 122.26(d)
Municipal Waste Sites	40 C.F.R. § 122.26(d)
Spill Prevention and Response	40 C.F.R. § 122.26(d)
Infiltration of Seepage	40 C.F.R. § 122.26(d)
Stormwater Management Program for Commercial and Residential Areas	40 C.F.R. § 122.26(d)
Manage Critical Source Areas	40 C.F.R. § 122.26(d)
Stormwater Management for Industrial Facilities	40 C.F.R. § 122.26(d)
Industrial and High Risk Runoff	40 C.F.R. § 122.26(d)
Identify Priority Industrial Facilities	40 C.F.R. § 122.26(d)
Illicit Discharges and Improper Disposal	40 C.F.R. § 122.26(d) (iv)(B)(7)
Flood Control Projects	40 C.F.R. § 122.26(d)
Public Education and Participation	40 C.F.R. § 122.26(d) (iv)(B)(6)
Monitoring and Assessment and Reporting	40 C.F.R. § 122.26(d)
Monitoring Program	40 C.F.R. § 122.26(d) (iv)(C)(2)
	40 C.F.R. § 122.26(d)

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

3. The Permittee shall continue to evaluate and update the use, application and removal of 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~~ summarized in each Annual Report.

4. The Permittee shall continue to implement and update a program and operating plan 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 and plan 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 system.

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 program shall include at a minimum the following elements:

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 SWPPP development and implementation, where needed.

3. Continue to implement procedures for record keeping and tracking inspections and maintenance at all municipal facilities.

The Permittee shall continue implementation of the following:

1. The Permittee shall continue to implement an inspection and maintenance program for all Permittee-owned management practices, including post-construction measures.

2. The Permittee shall continue to ensure proper operation of all treatment management practices and maintain them as necessary for proper operation, including all post-construction measures.

3. ~~Any residual water following infrastructure maintenance shall be self contained and disposed of legally in accordance with the Clean Water Act. [This is unclear and likely should be deleted]~~

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. ~~[This section should be revised to allow preventive maintenance ahead of an upset condition or removed altogether]~~

4.3.10 Municipal Official Training.

The Permittee shall continue to implement an on-going training program for its employees whose planning, design, review, construction, operations or maintenance 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 for appropriate individuals, 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 and have storm water management, operations, or regulatory responsibilities:

- Municipal Planning;
- Site plan review;
- Transportation planning and engineering;
- Street/sewer and right-of-way construction and maintenance;
- Water and sewer departments;
- Parks and recreation department;
- Municipal water treatment and waste water treatment;
- Fleet maintenance;
- Fire and police departments;
- Building maintenance and janitorial;
- Garage and mechanic crew;
- Contractors and subcontractors who may be contracted to work in the above described areas;
- Personnel responsible for answering questions about the Permittee's stormwater program, including persons who may take phone calls about the program; and
- Any other department of the Permittee that may impact stormwater runoff

4.4 Management Plan for Commercial and Institutional Areas

The District shall establish and implement policies and procedures to reduce/control the discharge of pollutants in stormwater runoff from ~~all~~ commercial and institutional (including federal) areas.

The Permittee shall maintain best management practices for stormwater management controls in commercial and institutional land areas to the maximum extent practicable in accordance with the following provisions:

The Permittee shall:

1. Track;
2. Inspect; and
3. Ensure compliance with the MS4 permit and municipal ordinances at commercial and institutional facilities.

Commercial and institutional minimum performance measures are:

4.4.1. Inventory of Critical Sources and Source Controls

1. Inventory. 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 ~~S~~sources to be tracked may include some or all of 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.

2. Required Information. The Permittee shall include the following minimum fields of information for each critical source: industrial and commercial facility:

- 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 and dates.

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. Inspect 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~~recommended. [Note, where a follow-on inspection occurs to ensure non-compliance has been addressed, that second inspection should be allowed to qualify and the Permittee should not have to wait six months.]

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. [Note: this makes the District responsible for discharges from these sources – the requirements should be to ensure that these sources are complying with their storm water management requirements and not that those requirements are sufficient to protect water quality]

4.5 Management Plan for Industrial Facilities and Spill Prevention

The District shall establish and implement policies and procedures to reduce the discharge of pollutants in stormwater runoff from all industrial (including relevant federal) facilities.

The Permittee shall:

1. 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

2. Continue to maintain and update the industrial facilities database.

3. 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. The Permittee 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.

5. 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 Permittees (and/or another public or private entity).

6. 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

Continue implementation of the Program that ~~reduces~~controls 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).

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, receive EPA NPDES Construction General Permit Coverage and ~~enforcement~~meet EPA's Construction Effluent Limitations guidelines. The Permittee shall periodically monitor ~~its effluent~~the discharge from such sites for sediment using appropriate methods (e.g., using turbidity as a surrogate for sediment). ~~[This is a major task – monitoring construction site effluents...]~~

Continue to implement an inspection and enforcement plan for carrying out the objectives of the SWMP dated February 19, 2009. Maintain inspections ~~and compliance and enforcement activities~~ at or above the 2008 level. 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.

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.

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 (3) discussion of progress toward meeting applicable TMDL deadlines.

4.7 Management Plan for Illicit Discharges and Improper Disposal.

The Permittee shall perform the following:

1. Continue to implement an ongoing program to detect illicit discharges, pursuant to the SWMP dated February 19, 2009, 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. Continue to implement an illicit connection detection and enforcement program to perform dry weather flow inspections in target areas;

c. Visual inspections of targeted areas; and

d. 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.

e. An enforcement plan for illicit discharges set forth in Part 4 herein. The Permittee shall provide a justification for the control plan in the Annual Report in demonstrating its compliance with the requirements of ~~this Permitte-Clean Water Act.~~

f. All necessary inspection, surveillance, and monitoring procedures to remedy and prevent illicit discharges. ~~The Permittee shall carry out the necessary monitoring activities with the goal of meeting the requirements of the Clean Water Act.~~ The Permittee shall submit an inspection plan, inspection criteria, and documentation regarding protocols and parameters of field screening as a part of each Annual Report. The inspection plan shall include a schedule and allocation of resources.

g. 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. ~~The implementation of this program shall be reported in each of the Annual Reports.~~ [Required immediately below]

h. The Permittee shall report the accomplishments of this program in each Annual Report.

2. The Permittee shall continue to ensure the implementation of a program to ~~control 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.

3. The Permittee 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 to ~~all private~~District residents and that they are publicized and promoted on a regular basis, pursuant to the Public Education Plan in this permit at Part 4.9 herein.

4. The Permittee shall continue to work with members of the Metropolitan Police Department to enhance illegal dumping enforcement.

5. The Permittee shall implement the District's ban on coal tar pavement products, including conducting outreach and enforcement activities.

6. The Permittee shall implement the District's 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

The Permittee shall:

1. Update the impervious surface analysis of floodplains six months after the approval of the revised ~~the~~ Flood Insurance Rate Maps by the Federal Emergency Management Agency.

2. 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). ~~In addition, submit the flood control measures necessary to meet the requirements of the Clean Water Act with these Reports/Plans.—~~

3. 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. ~~An explanation shall be provided as to how the implementation of these procedures will meet the requirements of the Clean Water Act.—~~

4.9 Public Education and Participation Program

The Permittee 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 goal of the education program is to improve understanding of ~~reduce or eliminate behaviors and~~ practices that will cause or contribute to help to minimize or avoid adverse stormwater impacts. An education program may be developed locally or regionally.

The minimum performance measures are:

4.9.1 Education and Outreach. The Permittee 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~~ improve the target audience's understanding of stormwater pollution and steps they can take to reduce their impacts.

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:

1. *General public:*
 - General impacts of stormwater flows into surface waters.
 - Impacts from impervious surfaces.
 - Source control practices and environmental stewardship actions and opportunities in the areas of pet waste, vehicle maintenance, landscaping, and rain water reuse.
 - A household hazardous waste educational and outreach program to control illicit discharges to the MS4 as required herein.
 - Information and education on proper management and disposal of used oil, other automotive fluids, and household chemicals.

2. *General public, businesses, including home-based and mobile businesses:*
 - Management practices for use and storage of automotive chemicals, hazardous cleaning supplies, carwash soaps and other hazardous materials.
 - 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

3. *Homeowners, landscapers and property managers:*
 - Use of low-chemical nutrient fertilizers, alternatives to fertilizers, alternative landscaping requiring no fertilizers.
 - Car washing alternatives with the objective of eliminating phosphorus detergent discharges.
 - Yard care techniques that protect water quality.
 - Management practices for use and storage of pesticides and fertilizers.
 - Management practices for carpet cleaning and auto repair and maintenance.
 - Runoff Reduction techniques, including site design, on-site retention, pervious paving, retention of forests and mature trees.
 - Stormwater pond maintenance.

4. *Engineers, contractors, developers, review staff and land use planners:*
 - Technical standards for construction site sediment and erosion control.
 - Runoff Reduction techniques, including site design, on-site reduction, pervious pavement, alternative parking lot design, retention of forests and mature trees.
 - Stormwater treatment and flow control controls.
 - 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.

The minimum performance measures are:

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.

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.

3. The Permittee shall continue to make all approved MS4 documents required under this Permit available to the public. The current approved SWMP and the latest MS4 annual Permit deliverable documents required under this Permit shall be posted on the Permittee's website.

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 goals. 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 the Clean Water Act.

The Permittee shall periodically, and at least annually, update its website.

5. MONITORING AND ASSESSMENT OF CONTROLS

5.1

Revised monitoring plan

Within one year of the effective date of this permit the permittee shall develop, public notice and submit to EPA Region III for approval a revised monitoring plan to meet the following objectives:

1. Make wet weather loading estimates of the parameters in Table 3 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. Any additional necessary monitoring for purposes of source identification or wasteload allocation tracking.

Table 3
Monitoring Parameters

<p>All chemical analyses accordance with analytical Part 136. When there is not an applicant may use any suitable herein, but must provide a</p>	<p>Required Program Applicati</p>	<p>required herein shall be performed in methods approved under 40 C.F.R. approved analytical method, the method as described in Section 5.7 description of the method.</p>
<p>The Permittee must use quality of the stormwater receiving waters at a minimum to</p>	<p>Adequate Legal Authority</p> <p>Green technology stormwater incorporate technologies and p activities.</p>	<p>the information to evaluate the program and the health of the include:</p>

1. The Permittee shall perform the following activities annually:

A. Estimate annual cumulative pollutant loadings for pollutants listed in Table 3. Pollutant loadings will be reported in DMRs and updates to the existing TMDL Implementation Plans; and

B. In updates to the existing TMDL Implementation Plans, estimate and report the event mean concentrations of pollutants listed in Table 3 in discharges from the monitoring stations in Table 4 herein.

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

5.2. Interim Monitoring

Until such time as EPA has approved the Revised Monitoring Plan, 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 3 herein, at the locations listed in Table 4 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, not to exceed two years.

TABLE 4
Monitoring Stations

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), November 27, 2007 and August 2008 Letters of Agreement - [Note: it is unnecessary to reference a letter of agreement as the substantive requirements are imposed elsewhere in the permit]
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)(6)
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)(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)(C)(2)

The District may revise this list of sites in accordance with its revised monitoring plan in Section 5.1 herein. [Note: The District may want to identify a couple of alternate sites now] 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 reopener clause.

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 herein -- 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 3 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 representative grab sample aliquots ~~taken in each hour of discharge for the entire discharge~~, with each aliquot being separated by a minimum period of fifteen minutes whenever possible.

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.) or otherwise make the collection of a sample impracticable (drought, extended frozen conditions, etc.).

5.3 Monitoring Plan Implementation

Upon approval of the Revised Monitoring Plan 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 Plan.

5.4 Dry Weather Monitoring

5.4.1 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 dated February 19, 2009. 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.

5.4.2 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 February 19, 2009 SWMP shall be used as guidance.

5.4.3 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.

5.5. 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 3 herein.

5.6 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.

5.7 Monitoring and Analysis Procedures

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.

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 1613E). If used, the Permittee shall report using the more current and/or more sensitive method for compliance reporting and monitoring purposes.

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.

5.8 Reporting of Monitoring Results

The Permittee shall continue to report monitoring results annually in a Discharge Monitoring Report. Monitoring results obtained during the previous year shall be summarized and reported in the Annual Report postmarked no later than the effective date of the permit of the following year. The original and one copy of the Report are to be submitted to EPA at the following address:

NPDES Permits Branch

Water Protection Division
1650 Arch Street
Philadelphia, PA 19103-2029

National Marine Fisheries Service/Northeast Region
Protected Resource Division
55 Great Republic Drive

[Note: is DDOE necessary here – sending the report to themselves?]

District Department of the Environment
Water Quality Division
1200 1st St, 6th Floor
Washington, D.C. 20002

5.9 Additional Monitoring by the Permittee

If the Permittee monitors (for the purposes of this permit) any pollutant in a final discharge location, 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.

5.10 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 ~~three (3) five (5)~~ [See 40 CFR Part 122.41(j)(2)] years from the ~~expiration date of this Permit~~ date of the sample, measurement or report. This period may be extended by request of EPA at any time.

5.11 Record Contents

Records of monitoring information shall include:

1. The date, ~~exact place~~ 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;~~ (duplicate)

4. ~~The individual(s) who performed the analyses;(duplicate)~~
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 5 below. ~~[Note: below the TMDL reporting is rolled into the Annual Report]~~

TABLE 5
Permit Deliverables

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 Colum Municipal Regulations (Water Quality and Pollution), November 27, 2007 and August 2008 Letters of Agreement - [Note: it is unnecessary to reference a letter of agreement as the substantive requirements are imposed elsewhere in the permit]
Existing Structural and Source Controls	40 C.F.R. § 122.26(d)(2)(iv)(A)(1)

6.1 Discharge Monitoring Reports

The Permittee shall provide discharge monitoring reports on the quality of stormwater discharges from the MS4 from monitoring as stipulated in Part 5 of this permit.

6.2 Annual Reporting/Implementation Plan (Consolidated)

The Permittee shall submit an Annual Report/Implementation Plan, which is to be provided to EPA on the effective yearly date of the permit for the duration of the permitting cycle.

6.2.1. Annual Report. The Annual Report portion of the submission shall follow the format of the Permit as written, and include at a minimum, the following elements:

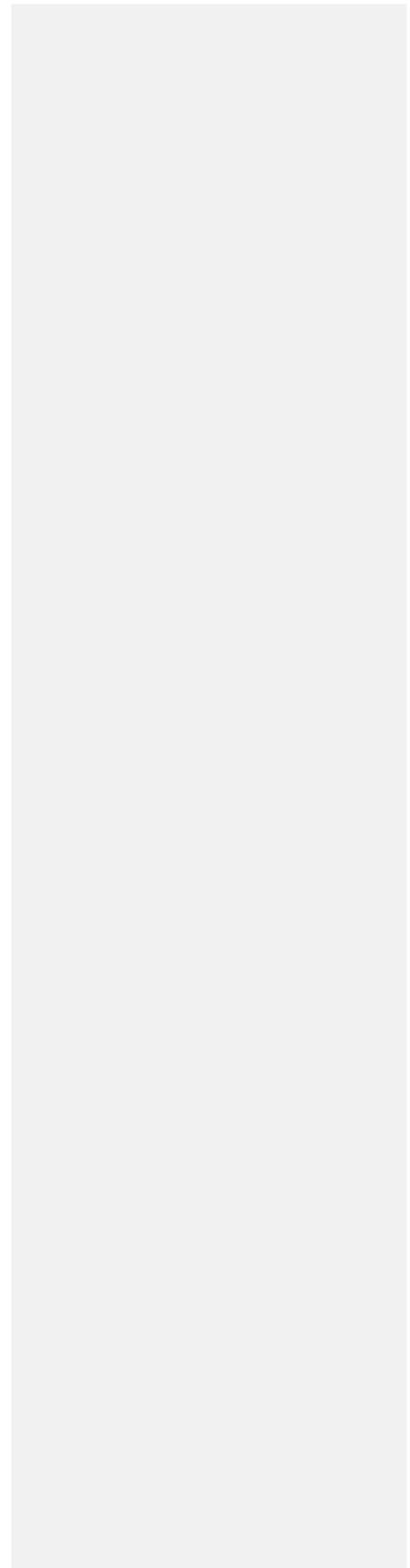
- a. A review of the status of program implementation and compliance (or non-compliance) with all schedules of compliance contained in this permit, including documentation as to compliance with performance standards contained in Section 4 herein;
- b. A review of monitoring data and any trends in estimated cumulative annual pollutant loadings, including TMDL WLAs and TMDL Implementation Plans;
- c. An assessment of the effectiveness of controls established by the February 19, 2009 SWMP;
- d. An assessment of the projected cost of the February 19, 2009 SWMP 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, ~~notwithstanding 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; [Note: Neither the EPA nor the District can ignore these statutory limitations.]
- 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 February 19, 2009 SWMP modifications needed to reduce the discharge of pollutants to meet the requirements given in 40 C.F.R. § 122.26(d)(2)(iv);
- 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. A cost-benefit and affordability analysis to determine the commitments for the next year;
- k. Methodology to assess the effects of the February 19, 2009 Stormwater Management Program (SWMP) in reducing pollution and achieving the requirements of the Clean Water Act and the requirements of 40 C.F.R. § 122.26(D)(2)(iv),(v), and(vi);
- l. Annual expenditures and budget for the year following each annual report;
- m. A summary of commitments for the next year and evaluation of the commitments from the previous year;
- n. 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;

- o. The percentage of impervious cover reduced annually through the District's Updated Master LID Implementation Plan, including but not limited to the number and square footage of green roofs installed in the District; and
- p. Percentage of impervious cover within the District, broken down by the three major watersheds in the District (Anacostia, Potomac and Rock Creek).

6.2.2 Implementation Plan. The Implementation Plan portion of the submission shall analyze in detail the work to be performed in each successive one-year increment by identifying and evaluating the previous year's efforts based on a cost benefit and affordability analysis. The Plan shall include an established measurable performance standard for each of the MS4 Program activities. 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 listed in the Plan shall be described incorporating, when practicable, 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 Plan 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).

The reporting requirements of Table 6 below apply to each of the 12 components of the District's SWMP. All components of the SWMP shall be implemented and updated in accordance with the February 19, 2009 SWMP. Reporting deadline is with each Annual Report.

TABLE 6
Stormwater Management Program Components



Required Program Application Element	Regulatory Reference
Adequate Legal Authority	40 C.F.R. § 122.26(c)
Green technology stormwater management practices, which incorporate technologies and practices across District activities.	Chapter 5 of Title 2 (Municipal Regulation and Control of Air Pollution), November 2008 Letters of Agreement. <u>unnecessary to refer as the substantive requirements are elsewhere in the permit</u>
Existing Structural and Source Controls	40 C.F.R. § 122.26(c)
Roadways	40 C.F.R. § 122.26(c)
Pesticides, Herbicides, and Fertilizers Application	40 C.F.R. § 122.26(c)
Municipal Waste Sites	40 C.F.R. § 122.26(c)
Spill Prevention and Response	40 C.F.R. § 122.26(c)
Infiltration of Seepage	40 C.F.R. § 122.26(c)
Stormwater Management Program for Commercial and Residential Areas	40 C.F.R. § 122.26(c)
Manage Critical Source Areas	40 C.F.R. § 122.26(c)
Stormwater Management for Industrial Facilities	40 C.F.R. § 122.26(c)
Industrial and High Risk Runoff	40 C.F.R. § 122.26(c)
Identify Priority Industrial Facilities	40 C.F.R. § 122.26(c)
Illicit Discharges and Improper Disposal	40 C.F.R. § 122.26(c)(iv)(B)(7)
Flood Control Projects	40 C.F.R. § 122.26(c)
Public Education and Participation	40 C.F.R. § 122.26(c)(iv)(B)(6)
Monitoring and Assessment and Reporting	40 C.F.R. § 122.26(c)
Monitoring Program	40 C.F.R. § 122.26(c)(iv)(C)(2)
Characterization Data	40 C.F.R. § 122.26(c) and 40 C.F.R. § 122.21(e)(1)

These reporting requirements are governed by the schedules presented in Table 5.

i.

Reporting on Funding.

The Permittee shall coordinate and facilitate a collaborative effort among relevant city agencies and departments to develop and recommend the level of expenditures necessary for the activities required in the Annual SWMP Reports and the SWMP Implementation Plans based on a cost-benefit analysis. If the recommended Report(s)/Plan(s) are not funded by the Mayor, the City Council and/or U.S. Congress, then a written explanation will be provided by the District of Columbia Department of the Environment within 30 days after a decision is reached by higher authorities. A written report on the above requests and decisions will also be incorporated into each Annual Report(s) and Plan(s). In each submittal, an explanation will indicate why the recommended funding was not approved. Once the SWMP Annual Report and SWMP Annual Implementation Plan are developed by this procedure, failure by the District to carry out the minimum requirements in the Reports or Plans would be a violation of this permit.

Based on the level of funding available and a cost-benefit analysis, an evaluation shall be made in each Annual SWMP Implementation Plan as to the benefit of implementing various types of structural and non-structural controls. The effect of the number and type of annual maintenance, inspections, and other program requirements will also be taken into account. Several alternatives will be considered in searching for the optimum approach. The alternatives will be evaluated in terms of a cost-benefit analysis, taking into account the availability of funding and other environmental obligations of the District. The Permittee shall not be entitled to rely on non-affordability as a defense for noncompliance with conditions of SWMP required under this Permit.

6.2.3. Annual Report/Implementation Plan Revisions. Each Annual SWMP Report and SWMP Implementation Plan may be revised with written approval by EPA. The revised Report or Plan will become effective after its approval.

6.2.4 Signature and Certification. The Permittee shall sign and certify the Annual Report/Implementation Plan (consolidated) in accordance with Part 6.2 herein ~~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 Effect of Non-Submittal or Non-Signature. Failure to submit an Annual SWMP Report and/or Annual SWMP Implementation Plan, according to the signatory requirements in Part VII.F, and by the deadlines identified in Table 4 herein, is a violation of this permit.

6.2.6 EPA Approval. In reviewing any submittal identified in Table 5, 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 unless a longer period is agreed to. If EPA determines that the Permittee has not adequately addressed the disapproval/comments, the Permittee shall be in noncompliance with the submittal requirement~~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.

If EPA fails to act on any submittal within 60 days of the submittal date, any dependent deadlines tied to the approval of that submittal are extended by one day for each day it takes EPA to act beyond the 60 days.

6.3 Updated SWMP and MS4 Permit Application

The Permittee shall develop an Updated SWMP and Permit Application based on the findings presented in each of the Annual SWMP Reports, and Annual SWMP Implementation Plans submitted during the permitting cycle. All the improvements and modifications to the District's existing SWMP dated February 19, 2009 shall be made in the Updated SWMP to be submitted six months prior to the expiration date of the permit. The Updated SWMP shall define the goals of the SWMP and provide an analysis to assure EPA that these goals will be achieved according to the schedule to be included in the Updated Plan. The Updated SWMP shall define what has to be done to meet the requirements of the Clean Water Act and a schedule for accomplishing these tasks.

One of the purposes of the SWMP is to develop a master plan pursuant to 40 C.F.R. § 122.26(d)(2)(iv)(A) to determine the structural and source measures to reduce pollutants from runoff. Such control systems shall include those given in the SWMP dated February 19, 2009.

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/Implementation Plan 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 system 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. OTHER APPLICABLE PROVISIONS

8.1. WQS and TMDL WLA Implementation Plans and Compliance Monitoring.

1. The Permit includes a goal of complying with all TMDL WLAs applicable to the District MS4 approved or established as of the effective date of this Permit. Such compliance shall be achieved through the implementation of the best management practices described herein to the maximum extent practicable. Such implementation (to the MEP) will be identified in each Annual Implementation Plan.

2. No later than one year from the effective date of this Permit, the Permittee shall submit to the permitting authority updates to the Anacostia and Rock Creek Implementation Plans. This does not pertain to the schedule identified in Table 5 for submission of TMDL Implementation Plans for the Potomac River or the Anacostia River Trash TMDL. Water quality-based effluent limits for stormwater discharges that implement WLAs in TMDLs may be expressed in the form of management practices under specified circumstances. *See* 33 U.S.C. §1342(p)(3)(B)(iii); 40 C.F.R. §122.44(k)(2)&(3). If management practices alone adequately implement the WLAs, then additional controls will not be necessary. The sediment TMDLs and their implementation plans are incorporated by reference as the implementation plans for achieving the metals, nutrients, and other toxic and non-conventional pollutants that are naturally present in soils as the loading reduction specified in several TMDLs. Many of these pollutants are present as particulates and will be removed with other particles. Dissolved forms of pollutants are often absorbed or adsorbed to particulate matter and can also be removed along with the particulates (i.e., sediment). Further, management practices in similar watersheds or receiving stream, segment of the stream, or other water body are expected to achieve similar reductions. Effluent limitations that reduce turbidity in the stormwater discharge are also expected to achieve reductions of the other pollutants of concern.

3.

To be eligible for approval by EPA, each TMDL Implementation Plan and any subsequent updates and/or modifications to them must contain at a minimum:

A.

An estimated ~~specified ultimate~~ date for ~~achieving final~~ compliance with the WLA using an iterative program of BMPs to the MEP.

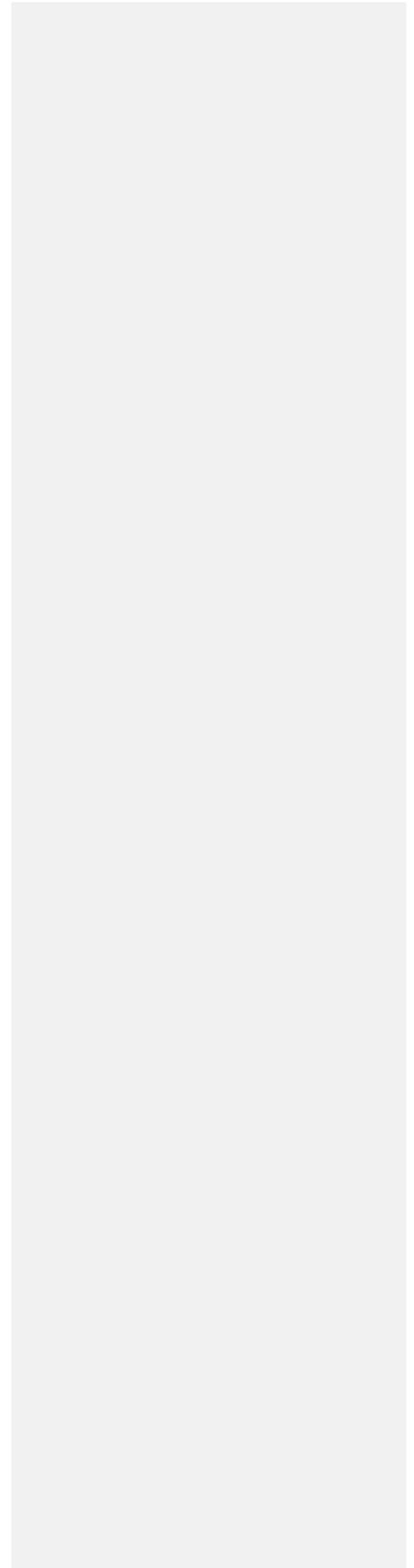
B.

A set of controls for achieving the MS4 WLA, which may include stormwater pollution reduction and elimination laws and regulations, LID Implementation as set forth in section 4.1.1 herein, municipal operations to reduce the discharge of pollutants in stormwater as set forth in Section 4.2 herein, and other management practices. The set of controls may be adapted as opportunities change, ~~as long as interim deadlines for WLAs are still met.~~

C. Numeric benchmarks ~~which specify for~~ annual pollutant load reductions and/or BMP implementation and the extent of control actions for achieving these annual benchmarks.

D.

~~An interim~~The estimated compliance deadline for achieving the percentage of pollutant load reductions anticipated to be specified in the implementation plan for ~~that~~each TMDL WLA by, ~~at the latest,~~ the end of the Permit term.



E.

Demonstration, using modeling and/or current best practices, how the WLA will be achieved using the chosen controls, by the date for ultimate achievement. An annual evaluation can be based upon either presumed pollutant reductions from management practices implementation or actual monitoring data. If an annual evaluation of monitoring data indicates that these practices are insufficient progress towards meeting the WLA, the Permittee shall adjust its management ~~program towards meeting the water quality standards and appropriate TMDLs~~ accordingly.

F.

Specific public involvement actions, to engage the public in a meaningful way in the process of developing the TMDL implementation plan, including in the identification of a compliance deadline and selection of pollution controls. The Permittee shall begin including the public in such discussions no later than six months from the date of the TMDL WLA approval.

G.

Sufficient monitoring for chemical constituents listed in Table 3 in each TMDL watershed to enable timely, iterative evaluation of the implementation plan, and require management responses if monitoring reveals insufficient progress toward meeting the WLA within the specified timeframe. ~~For TMDL pollutants not included in Table 3, pollutant load reductions will be estimated using BMP efficiencies in place of monitoring data.~~ The monitoring elements, and pollutant load reductions estimated using BMP efficiencies, shall at a minimum, describe:

i.

How the extent of pollution control implementation is being tracked; and

ii.

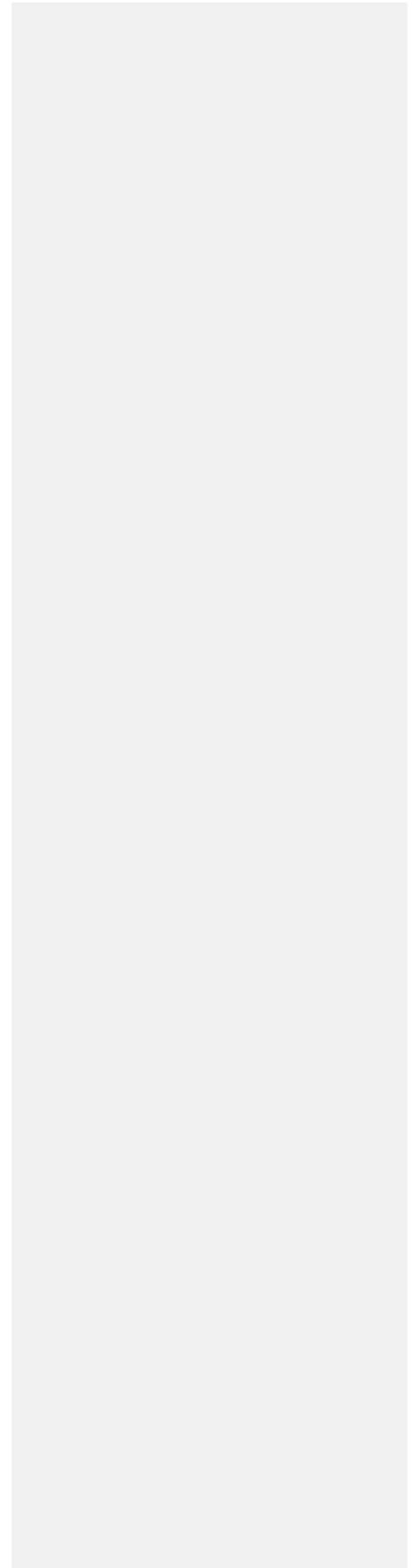
Quantified progress in meeting the implementation benchmarks.

H. The TMDL Implementation Plan elements included in each SWMP Annual Implementation Plan, required in Section 6.2.2, required in this section will become enforceable permit terms upon approval of such Plans, ~~including the interim and final WLA achievement dates in this section.~~ Compliance with the TMDL-related aspects of each approved SWMP Annual Implementation Plan shall constitute compliance with the schedule for achieving applicable TMDL WLAs.

In addition to the duty to comply with the discharge limitations in Part 9.1 of this Permit, the Permittee shall demonstrate compliance as described in this Part and in Part 5 herein (Monitoring and Assessment of Controls). ~~In accordance with the schedule identified in Table 5 herein, the Permittee shall further submit implementation plans/modifications to existing plans to reduce discharges consistent with any applicable EPA approved WLA component of any established TMDL. An applicable TMDL WLA for this Permit means any WLA in any TMDL established on, modified during, or approved by EPA for a receiving stream, segment of a stream, or other water body within the District of Columbia to which the~~

~~MS4 system discharges.~~ **[Note: deleted as it is duplicative]**

EPA has identified all applicable TMDL WLAs and the associated reductions from current estimated loadings in approved Agency documents (Refer to the District Department of the Environment's website for a listing of the DC TMDLs on its webpage and the Anacostia River/Rock Creek TMDL Implementation Plans).



For the pollutants listed in Table 3, demonstration of compliance will be calculated using the procedures (i.e., Simple Method) identified in the SWMP dated February 19, 2009, approved Anacostia River TMDL Implementation Plan dated February 19, 2005, and/or other appropriate modeling tools and data on BMP efficiencies. The Permittee will report such information by comparing the monitoring data for that pollutant to the approved pollutant according to the procedures required by the Permit herein, specific WLAs and its associated stormwater load reductions for the receiving water body.

The Permittee shall report to EPA the results of this analysis through Annual Reports in accordance with the compliance schedule in this Permit. If the analysis concludes that the MS4 discharge monitored for that specific pollutant is not meeting benchmark reductions toward achieving pollutant-specific WLAs, the Permittee shall develop, through the Annual Reports in accordance with the compliance schedule in this Permit, recommendations for achievement of the benchmarks~~correction of the non-compliance problems~~. The Plan/Modifications shall consist of documenting all previous and on-going efforts at achieving the specific pollutant reductions identified in the TMDL WLA and further demonstrating additional controls sufficient to achieve those reductions through an established performance based benchmark. This benchmark shall be applied against annual projected performance standards for purposes of revising the final implementation plan when determining measurable progress to achieve adequate reduction.

The Permittee shall perform an assessment of each TMDL Implementation Plan, including an assessment of each of the following program elements: street sweeping; inspection and enforcement; public outreach; constructed green technology practices and other management practices; and evaluation of load reductions. The Permittee shall submit this assessment to EPA as part of the Stormwater Management Plan for review and approval. The assessment methodology for each Plan approved shall identify demonstrate at least an the actions implemented toward achieving an overall stormwater pollutant reduction percentage from the baseline monitoring program for each watershed during the Permit term, for purposes of achieving TMDL WLAs. EPA reserves the right after a review and approval of each plan modification/annual report to modify this permit for purposes of requiring additional numeric and/or narrative effluent limitations and conditions~~controls~~ on the discharge of pollutants from the MS4. EPA shall make the results of any such determination(s) in writing available to the Permittee and other interested persons including, but not limited to members of the District of Columbia MS4 Task Force. Currently, TMDLs are under development for the Potomac River and for the Anacostia River (Refer to Potomac River Summit for a "Trash Free" River by 2013 and Potomac River Watershed Trash Treaty executed in 2005). Upon approval by EPA, the TMDL implementation plan(s) shall be incorporated into the SWMP in accordance with the compliance schedule in Part III.A and Table 4 of this Permit.

The Permittee shall submit to EPA the applicable TMDL Implementation Plans for the Potomac River and for the Anacostia River (Trash TMDL) for review and approval in accordance with Table 5 herein. The Permittee shall prepare for implementation of the TMDLs on the following schedule: the TMDL approvals for the Potomac River are expected to occur in the January 2011 time frame and the Anacostia River Trash TMDL is expected to occur in the March 2010 time frame.

If the analysis concludes that the MS4 discharge monitored for that specific pollutant is not meeting approved implementation plan schedules for the pollutant-specific WLAs, the Permittee shall develop through the Annual Reports in accordance with the compliance schedule in this Permit recommendations for correction of the non-compliance problems.

8.1.1 Potomac River TMDL Implementation Plan

The Permittee shall develop and implement one consolidated Potomac River TMDL Implementation Plan using the format of the previously-approved Anacostia River and Rock Creek Implementation Plans in accordance with Section 8.1 above and with the schedule provided in Table 5 of this Permit. As part of the consolidated Annual Report/Implementation Plan, the Plan shall be assessed and evaluated for WLAs reductions in accordance with the schedule in Section 8.1 above. All elements of the approved subject TMDL Implementation Plan shall be enforceable conditions of the Permit upon approval by EPA, including actions in the SWMP Annual Implementation Plan which are targeted toward achieving interim and final applicable TMDL WLAs achievement dates.

8.1.2 Anacostia River Trash TMDL Implementation Plan

The Permittee shall develop and implement an Anacostia River TMDL Implementation Plan in accordance with Section 8.1 above and with the schedule provided in Table 5 of this Permit. As part of the consolidated Annual Report/ Implementation Plan and assessed and evaluated for WLAs reductions in accordance with Section 8.1 above. All elements of the approved subject TMDL Implementation Plan shall be enforceable conditions of the Permit upon approval by EPA, including actions in the SWMP Annual Implementation Plan which are targeted toward achieving applicable interim and final TMDL WLAs achievement dates.

8.2 Compliance Monitoring with Water Quality-Based Effluent Limitations

EPA reserves the right to modify the Permit as needed, when monitoring results set forth in Sections 5 and 8 of the permit show that current practices required by this Permit are not sufficient to minimize pollutants in stormwater discharges or other unauthorized discharges into the MS4 System as necessary to comply with standards contained in section 1.4 herein.

8.3 Hickey Run

Throughout the life of the Permit, 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 Figure 5 of the February 19, 2009 SWMP, which is incorporated herein. In addition, the Permittee shall continue efforts to install an end-of-pipe BMP to address TMDL pollutants of concern in Hickey Run

At a minimum, the Permittee shall monitor at the Fort Lincoln-Newtown Inlet site and the three other stations one upstream from the Fort Lincoln-Newton Inlet site and one downstream from that site, to evaluate progress with the Hickey Run Strategy. Such monitoring shall be performed contemporaneously with the Anacostia River Subwatershed Monitoring site (Gallatin Street & 14th St. NE) described in Section 5.0, Table 4, of the Permit.

If monitoring results indicate additional measures are necessary, the Permittee shall implement the catch basin retrofit aspect of the proposed strategy for Hickey Run or other management strategies at least as effective.

9. STANDARD PERMIT CONDITIONS FOR NPDES PERMITS

9.1 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.

9.2 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:

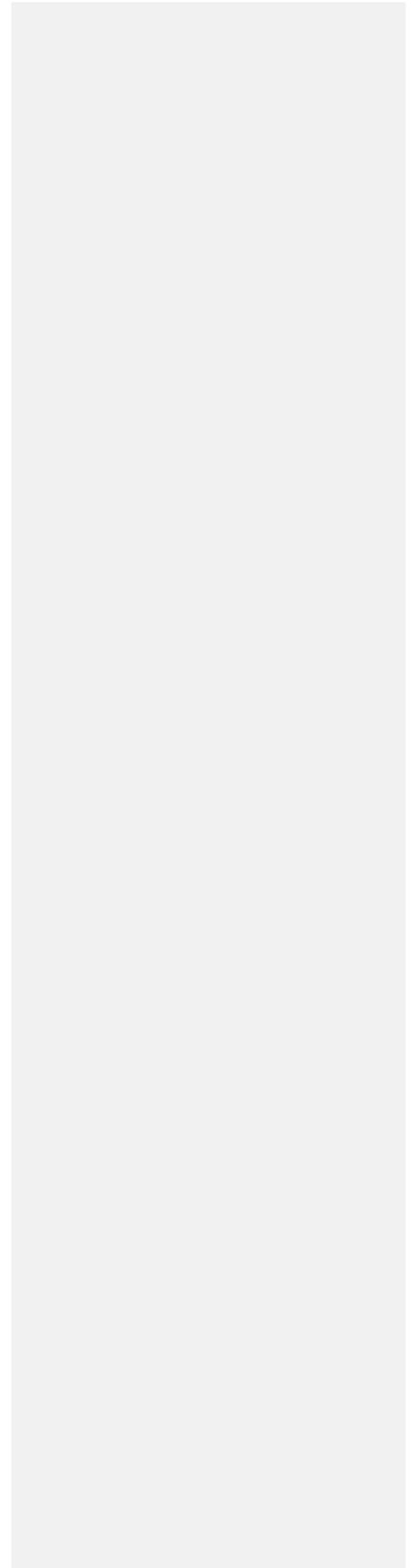
1. Enter upon the Permittee's premises at reasonable times where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be maintained under the conditions of this 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.

9.3 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.

9.4 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 as soon as possible 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 Plan dated February 19, 2009.

9.5 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.

9.6 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 ~~three (3) years from the date of the sample, measurement, report, or application~~ ~~five (5) years from the expiration date of this Permit~~. This period may be extended by request of EPA at any time. [\[Note, see 40 CFR Part 122.41\(j\)\(2\)\].](#)

9.7 Signatory Requirements

All Discharge Monitoring Reports, stormwater pollution prevention plans, 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.

9.8 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.

9.9 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 dated February 19, 2009. In the case of “exemptions and waivers” under District law, regulation or ordinance, Federal law and regulation shall be controlling.

9.10 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.

9.11 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.

9.12 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.

9.13 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.

9.14 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.

9.15 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

9.16 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.

9.17 Bypass [\[We do not believe that the bypass rules apply to MS4 infrastructure\]](#)

~~9.17.1. Bypass not exceeding limitations. 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.~~

~~-~~
~~-~~

~~9.17.2 Notice~~

~~-~~

~~1. Anticipated bypass. If the Permittee knows in advance of the need for a bypass, it must submit prior notice, if possible 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).~~

~~-~~

~~9.17.3 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.~~

9.18 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.

9.19 Reopener Clause for Permits

The permit may be modified or revoked and reissued, 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:

1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

2. 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

3. The permit may be modified, or revoked and reissued 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.

This permit may also be reopened, modified, or revoked and reissued as specified in 40 C.F.R. §§ 122.44(c), 122.62, 122.63, 122.64, and 124.5.

9.20 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.

10. 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 and Implementation Plan that the Permittee is required to submit annually as described in section 6.2 herein.

“Bioretention” means the use of engineered soils and vegetation, often though not always with a sand or gravel layer beneath the soil layer, to reduce and retain a target volume of stormwater from a given site through the functions of: pore space and surface ponding storage; infiltration; extended filtration; reuse, and/or evapotranspiration.

“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.*

"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.

"Extended Filtration" means the filtration of stormwater through a medium such as engineered bioretention soil, anchored by vegetation that delays the release of a given volume of stormwater from a given site by a minimum of six hours. Extended filtration units typically are lined bioretention units.

The term "Federal Facilities" shall have the meaning contained in "EPA Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act" (Dec. 2009).

"Goal" means the end results the Permittee is to strive to achieve.

"Green Roof" is a low-maintenance vegetated roof system that stores rainwater in a lightweight soil medium, where the water is taken up by plants and transpired into the air.

"Green Technology Practices" applies to new and re-development and 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 goal.

"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.

“Internal Sampling Station” means a monitoring site which is located within the Municipal Separate Storm Sewer System (MS4) upstream of an outfall pipe which discharges stormwater directly into a receiving water body.

“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.

“MS4 Permit Area” shall mean all areas within the corporate boundary of the District of Columbia served by, or otherwise contributing to discharges from, municipal separate storm sewers owned or operated by the District of Columbia.

“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 for evaluating attainment of a goal.

“Permittee” refers to the Government of the District of Columbia and all subordinate District and independent agencies with responsibility for storm water management under the 2000 MS4 Task Force Memorandum of Understanding (2000 MOU), ~~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.

“Post-Development Hydrology” means the combination of runoff, infiltration and evapotranspiration rates, volumes, durations and temperatures that exist on the site following human-induced land disturbance.

“Pre-Development Hydrology” means the combination of runoff, infiltration and evapotranspiration rates, volumes, durations and temperatures that typically existed on the site before human-induced land disturbance occurred.

“Retrofit” means improvement(s) to an existing or new the stormwater conveyance system.

“Significant spills” includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous oil or hazardous substances in excess of reportable quantities under section 311 of the CWA (see 40 C.F.R. § 110.10 and C.F.R. § 117.21) or section 102 of CERCLA (see 40 C.F.R. § 302.4).

“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 Plan/Program. For purposes of this permit, the term includes all stormwater activities described in the District’s SWMP dated October 19, 2002, updated February 19, 2009, and all other documents and related correspondences embodied under the tier of the program document from the previous Permit and to be generated from 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).

“Significant materials” includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous oil or hazardous substances in excess of reportable quantities under section 311 of the CWA (see 40 C.F.R. § 110.10; 117.21) or section 102 of CERCLA (see 40 C.F.R. §302.4).

“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/Implementation Plans/Discharge Monitoring Reports. The goal 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, taking into account the cost benefit and affordability analysis to be done in each of the Annual Implementation Plans.

“Upset” means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond your 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.

“Development” and “redevelopment” are not defined but need to exclude utility repairs, maintenance or associated activities.