GOVERNMENT OF THE DISTRICT OF COLUMBIA
District Department of the Environment

Office of the Director

August 16, 2010

Mr. Jon M. Capacasa
Director
Water Protection Division 3WP13
U.S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029

Subject: National Pollution Discharge Elimination System Municipal Separate Storm Sewer System Permit No. DC0000221–2010 Annual Report, and 2011 Implementation Plan

Dear Mr. Capacasa:

In accordance with Part III.A of the referenced NPDES Permit, the District of Columbia is pleased to submit the 2010 Annual Report and the 2011 Implementation Plan for your review and comment. The 2010 Discharge Monitoring Report is being submitted under a separate cover letter from the District's Stormwater Administrator. We continue working diligently with all relevant District agencies and the community to implement the terms of our current Permit. The Annual Report summarizes activities conducted within fiscal year 2009 in compliance with this Permit, and the Implementation Plan forecasts activities for fiscal year 2011.

If you have any questions regarding the Annual Report or the Implementation Plan please contact Jeff Seltzer at (202) 535-1603, or via email at jeffrey.seltzer@dc.gov.

Sincerely,

Christophe A. G. Tulou
Acting Director

Enclosure:

cc: Mr. Neil Albert, City Administrator
The Honorable Mary Cheh, Councilmember
Dr. Natwar M. Gandhi, Chief Financial Officer
Mr. William O. Howland Jr., Director, Department of Public Works
Mr. George S. Hawkins, General Manager, DC Water
Mr. Gary Miller, Project Officer, EPA Region III
Mr. Gabe Klein, Director, District Department of Transportation
Mr. Peter Nickles, Attorney General
Ms. Robin-Eve Jasper, Director, Department of Real Estate Services
Dr. Hamid Karimi, Deputy Director of Natural Resources Administration, DDOE

GOVERNMENT OF THE DISTRICT OF COLUMBIA
WASHINGTON, DC

Adrian M. Fenty
Mayor

ANNUAL REPORT

Municipal Separate Storm Sewer System
NPDES Permit No. DC0000221

August 19, 2010

Prepared by:

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Submitted on behalf of:

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LIST OF ACRONYMS AND ABBREVIATIONS

AFV	Alternative Fuel Vehicle
AWRP	Anacostia Watershed Restoration Partnership
AWS	Anacostia Watershed Society
BMP	Best Management Practice
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CFR	Code of Federal Regulations
CSO	Combined Sewer Overflow
CWA	Clean Water Act
District	District of Columbia
DCMR	District of Columbia Municipal Regulations
DCPS	District of Columbia Public Schools
DCRA	Department of Consumer and Regulatory Affairs
DDOE	District Department of the Environment
DDOT	District Department of Transportation
DOH	Department of Health
DPR	Department of Parks and Recreation
DPW	Department of Public Works
DRES	Department of Real Estate Services
EE-CARS	Environmental Education for the Compliance of Automotive Repair Shops
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FHA	Federal Highway Administration
FY	Fiscal Year
GAO	Government Accounting Office
GIS	Geographic Information System

GPS	Global Positioning System
GSA	General Services Administration
HWD	District Department of the Environment Hazardous Waste Division
ICPRB	Interstate Commission on the Potomac River Basin
IPNM	Integrated Pest and Nutrient Management
LID	Low Impact Development
LQG	Large Quantity Generator
MAR	Master Address Repository
MOU	Memorandum of Understanding
MS4	Municipal Separate Storm Sewer System
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NWF	National Wildlife Federation
NWS	National Weather Service
OCTO	Office of the Chief Technology Officer
OPEFM	Office of Public Education Facilities Modernization
PCB	Polychlorinated Biphenyl
PEPCO	Potomac Electric Power Company
Permit	National Pollutant Discharge Elimination System Permit
QAPP	Quality Assurance Project Plan
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
SGC	Schoolyard Greening Consortium
SQG	Small Quantity Generator

SWEEP	Solid Waste Education and Enforcement Program
SWMD	Stormwater Management Division
SWMP	Stormwater Management Plan
TMDL	Total Maximum Daily Load
USDA ARS	U.S. Department of Agriculture, Agricultural Research Service
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WASA	District of Columbia Water and Sewer Authority
WLA	Waste Load Allocation
WPCCP	Water Pollution Control Contingency Plan
WPD	Watershed Protection Division
WPS	Worker Protection Standards
WQD	Water Quality Division

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DISTRICT OF COLUMBIA
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
MUNICIPAL SEPARATE STORM SEWER SYSTEM DISCHARGE PERMIT

I. BACKGROUND

The Government of the District of Columbia (District) submits this Annual Report on stormwater pollution control for fiscal year (FY) 2009 (October 1, 2008 – September 30, 2009) in compliance with the requirements established in Title 40 of the Code of Federal Regulations (CFR) 122.42(c) and the District's National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Water System Permit No. DC0000221 (Permit). The Permit authorizes discharges of stormwater from the Municipal Separate Storm Sewer System (MS4) to the Potomac and Anacostia Rivers and their tributaries in accordance with the conditions of the Permit. A copy of the Permit is posted on the DDOE Stormwater Management Division website (www.ddoe.dc.gov). The purpose of the District's MS4 program is to reduce pollutant loadings from the MS4 to receiving waters, to the maximum extent practable towards meeting District water quality standards and the approved Total Maximum Daily Loads (TMDLs) for those waters. This Annual Report details MS4 Permit-related activities conducted by District agencies during FY 2009 to reduce and control pollutant discharge from the MS4 to the Potomac and Anacostia Rivers and their tributaries. The District agencies responsible for implementing the activities required by the Permit are the District Department of the Environment (DDOE), the District of Columbia Water and Sewer Authority (WASA), the Department of Public Works (DPW), the District Department of Transportation (DDOT), and the District Department of Real Estate Services (DRES). Prior to August 1, 2009, DRES was known as the Office of Property Management (OPM).

This Annual Report is submitted together with the 2010 Implementation Plan in compliance with the reporting requirements defined in Parts III.A, III.B, III.C, III.D, IV.A.I, VI, and IX.B of the Permit.

The 2010 Annual Report contains sections in the following order: Background, Overview, and Standard Permit Conditions (Permit Administration Legal Authority, Source Identification, Monitoring Program, Management Programs, TMDL Waste Load Allocation (WLA) Plans, Funding, and Fulfillment of the Clean Water Act (CWA)). Highlights of the MS4 program during FY 2009 are provided in the Overview-Summary of Findings section of this report. The

report is organized based on the headings of the Permit to document accomplishments for specific requirements stated in the Permit.

I.A MS4 Permit and Letter Agreement

The U.S. Environmental Protection Agency (EPA) issued the MS4 Permit to the District on April 19, 2000, effective for a three-year term. The Permit authorizes discharges from the MS4 to the Potomac and Anacostia Rivers and their tributaries in accordance with the conditions of the Permit. On October 19, 2002, the District applied to renew the Permit and submitted an upgraded Stormwater Management (SWM) Plan for approval. The SWM plan describes the District's plan to control pollutant discharge from the MS4 to the Potomac and Anacostia Rivers and their tributaries. On August 19, 2004, EPA renewed the District's MS4 Permit for a five-year term. Table 1 presents the time line of events pertaining to the Permit.

This 2004 Permit was challenged by a number of environmental groups. This challenge ultimately led to an EPA Environmental Appeals Board-mediated process wherein the District and challenging environmental organizations attempted to reach agreement on permit provisions. While this process failed to reach a settlement, the District and EPA did reach a two-party agreement on a series of enhancements to the District's MS4 Permit. These enhancements are described in detail in a Letter Agreement between DDOE and EPA Region III, dated November 27, 2007, and amended August 1, 2008. As per our agreement with EPA we are completing the prescribed suite of BMPs. An update on the status of their implementation and compliance can be found in Appendix G: Letter of Agreement Update. The FY10 Implementation Plan details the budget and fiscal resources necessary to meet these requirements.

The 2004 Permit as modified by the Letter Agreement requires significant new activities, with its emphasis shifting from planning (in the original term NPDES permit) to implementation of plans submitted by the District, many with specific and measurable benchmarks and commitments. In particular, the Permit requires the District to demonstrate measurable progress towards compliance with the TMDL assigned to the MS4 for these watersheds, including activities outlined in the Anacostia River and Rock Creek TMDL WLA Implementation Plans. The District is currently demonstrating measurable progress towards compliance by completing the prescribed suite of BMPs as detailed in the Letter of Agreement, dated November 27, 2007.

On February 13, 2009, the District submitted to EPA Region III an application for renewal of its MS4 Permit. A draft of the District's next MS4 Permit had not been issued by EPA before the end of the reporting period covered in this document. It is anticipated that the next MS4 Permit

issued to the District will be based on an approach similar to that for the August 2008 Letter Agreement. Quantifiable measurable goals included in the Upgraded Stormwater Management Plan were submitted in tandem with the District's Permit reapplication.

I.B Memorandum of Understanding

DDOE has executed independent MOUs with DDOT, DPW, and WASA. These MOUs require the agencies to implement activities required under the Permit, and specify the amount to be reimbursed for the implementation of these activities. Copies of these MOUs can be found in Appendix A of this report.

I.C Stormwater Advisory Panel and Technical Workgroup

In March of 2009, the District's Comprehensive Stormwater Management Enhancement Amendment Act became effective. Among the purposes of this legislation was to improve coordination and cooperation among the District agencies. The Act expanded the District's Stormwater Advisory Panel (SWAP) to include more agencies with stormwater management responsibilities. The SWAP is comprised of the Directors of DDOE, DDOT, DPW, DRES, Office of Planning (OP), Office of Public Education Facilities Modernization (OPEFM), Department of Parks and Recreation (DPR), as well as the General Manager of WASA, the District's Chief Financial Officer, and the City Administrator. The legislation clarified that the SWAP is intended to provide a forum for Executive-level coordination among agencies implementing programs under the MS4 NPDES permit. The legislation requires the SWAP to meet at least twice per year; the first SWAP meeting was held in September of 2009.

In addition, the Act established a Technical Workgroup (TWG) to provide for ongoing, staff-level coordination on stormwater issues. The TWG continued to meet monthly throughout FY 2009.

I.D TMDL WLA Implementation Plans

On February 19, 2005, the District submitted the Anacostia River Watershed TMDL WLA Implementation Plan to EPA in compliance with the 2004 MS4 Permit. The TMDL WLA Implementation Plan for the Rock Creek Watershed was delivered on August 19, 2005. These plans analyze the cost effective methods for reducing pollutants discharged from the MS4. Both plans have been approved by EPA. The implementation schedule and budget provided in each of the TMDL WLA Implementation Plans began in FY 2007. District agencies and WASA have begun implementing these activities, as described in Section III.F of this report.

Table 1. Permit Time Line of Events.

Date	Event	Summary
April 2000	EPA issues MS4 Permit	Information gathering, planning, program development, and a requirement to control stormwater pollution
December 2000	District Agencies sign a Memorandum of Understanding (MOU)	Interagency agreement between the Department of Health (DOH), DPW, and WASA that delegates responsibilities of permit-related activities. The responsibilities of each agency were outlined in a matrix attached to the MOU.
		Mandates the preparation of an annual Agency Compliance Plan, which sets forth each agency's proposed budget plan dedicated to MS4 Permit compliance activities. The 2007 Agency Compliance Plan can be found on the SWMD website.
June 2001	Stormwater Permit Compliance Amendment Act of 2000 (DC Law No. 13-311) becomes effective	Created a Stormwater Administration within WASA and established WASA as the lead agency to coordinate actions among other District agencies in connection with permit compliance activities.
		Authorized WASA to collect a flat stormwater fee from retail water customers within the District.
		Established an Enterprise Fund from the stormwater fee to reimburse participating agencies for costs incurred because of MS4 Permit mandated activities. Activities include administration, operations, and capital projects.
		Designated DOH, DPW, and WASA responsible for the MS4 permit.
		Requires the preparation of a Semi-Annual Report to the Mayor and the DC Council that describes the activities undertaken in the previous six months and outlines activities planned for the following six months.
July 2001	WASA begins collection of Stormwater Fee (Enterprise Fund)	WASA began collecting the stormwater fee with the July billing cycle: • Single-Family: $7 per year • Multi-Family: 1.4 percent of water bill • All other properties: 2.0 percent of water bill
October 2002	DDOT assumes some of the DPW Permit-related responsibilities	Newly formed DDOT assumed selected permit-related activities previously allocated to DPW.
August 2004	EPA renews MS4 Permit	Requires a shift from planning and development of programs to implementation.
		Requires the District to demonstrate significant progress towards pollutant reductions.
		Requires the development of TMDL WLA Implementation Plans for Anacostia River and Rock Creek watersheds.
		Requires the District to prepare an Annual Report, Implementation Plan, and Discharge Monitoring Report annually for submission to EPA.
		A new matrix of activities based on the 2004 Permit was revised by the Task Force agencies to reflect the new allocation of responsibilities. However , due to the Permit challenge, the revision was not completed until 2007.

Table 1. Permit Time Line of Events.

Date	Event	Summary
December 2004 through 2007	Environmental organizations challenge the District MS4 Permit	Environmental organizations challenge and appeal the District's MS4 Permit, leading to a lengthy mediation and negotiation process overseen by EPA's Environmental Appeals Board.
February 2006	DDOE assumes DOH Permit-related responsibilities	Newly formed DDOE assumed all permit-related activities previously allocated to the Water Quality and Watershed Protection Divisions within DOH.
February 2007	DDOE becomes administrator of the Stormwater Program	District legislation established DDOE as the new administrator of the District's Stormwater Program.
		DDOE coordinates activities among other District agencies including DPW, DDOT, and WASA.
		WASA continues to collect the stormwater fee first established in 2001.
	EPA Region III Office of Compliance, Enforcement, and Environmental Justice audits the District MS4 program	EPA conducted an in-office and field audit of the MS4 program a few days after DDOE assumed responsibility for MS4 Permit administration. The EPA audit report was issued during FY 2008.
July 13, 2007	Stormwater hearing	DDOE, DPW, OPM/DRES and other District Agencies presented testimony on stormwater management activities before the Council of the District of Columbia.
September 9-12, 2007	Trip to Portland, OR	Representatives from several District Agencies traveled to Portland, Oregon to learn about new and progressive stormwater management techniques implemented by the Portland Bureau of Environmental Services
November 2007	DDOE and EPA Region III sign the MS4 Permit Letter Agreement	DDOE submitted to EPA a detailed schedule of specific and measurable commitments and benchmarks that will be implemented under the MS4 Permit in the interests of managing stormwater pollution.
August 2008	DDOE and EPA Region III modify and finalize the MS4 Permit Letter Agreement	DDOE submitted to EPA a revised schedule of commitments and benchmarks that clarifies tasks to be carried out under the MS4 Permit and tasks supported by EPA 319 grant funding.
November 2008	DDOE enacts first Stormwater Fee adjustment	DDOE adjusted the stormwater fee to raise additional revenue necessary to comply with the requirements of the MS4 Permit Letter Agreement. The revised fee structure charged: • Single Family Residence: $1.98 per month • Multi-Family Residence: 4.4% of water and sewer bill • All other properties: 6.3% of water and sewer bill
February 2009	DDOE submits application for the renewal of the District's MS4 Permit.	DDOE submitted the application for renewal of the District's MS4 Permit in accordance with Part III section A and E of the 2004 MS4 Permit.
March 2009	Comprehensive Stormwater Management Enhancement Amendment Act of 2008 (D.C. Law 17-0371) becomes	

Table 1. Permit Time Line of Events.		
Date	**Event**	**Summary**
	effective	
May 2009	DDOE revises Stormwater Fee to be based on impervious surface	DDOE passed regulations revising the stormwater fee to be based on impervious surface, rather than a flat fee for single family residences and a volumetric basis for multi-family residences and commercial properties. Under the impervious fee structure, every 1,000 square feet of impervious surface (considered 1 Equivalent Residential Unit, or ERU) is billed $2.57 per month. Single family residences are charged based on 1 ERU per month. All other properties are billed based on their total impervious surface area, rounded down to the nearest hundred square feet.
September 2009	First Stormwater Advisory Panel (SWAP) meeting	

I.E Annual Reporting

The District has conducted a variety of activities geared towards compliance with the Stormwater Permit requirements as outlined in the compliance matrix (Schedule A of the MOU). In FY 2009 the District submitted the 2009 Annual Report and the 2009 Implementation Plan on August 19, 2009 (per requirements of the Permit).

The Annual Report described MS4 permit-related activities conducted by District agencies during FY 2008, while the Implementation Plan projected activities scheduled for FY 2010.

This 2010 Annual Report includes information on other MS4 related activities, such as the District's administrative and regulatory actions and the capital improvements of stormwater facilities.

A copy of the final Semi-Annual Report (December 2008) is available on the SWMD website. A copy of this document is also available at the Martin Luther King, Jr. Library, located at 9th and G Streets, NW. Note that newly enacted stormwater legislation has consolidated DDOE's stormwater-related reporting requirements; as the Semi-Annual Reports were largely duplicative of information contained in the Annual Reports required under the MS4 Permit, only the Annual Reports will be prepared in the future.

I.F Permit Administration

DDOE was designated by the 2005 DDOE Establishment Act as the MS4 Permit Administrator, and assumed this responsibility in February of 2007. At that point, EA Engineering, Science, and Technology, Inc. was under contract with WASA to provide engineering consulting and administrative support for the MS4 Permit-related activities. EA's contract expired on September 30, 2007. Since then, DDOE staff have addressed all MS4 Permit administration responsibilities.

II. OVERVIEW: SUMMARY OF ACTIVITIES

This Annual Report delineates the achievements made in FY 2009, addressing the required provisions of the Permit. The following subsections summarize the activities of FY 2009.

II.A Source Identification

The existing MS4 infrastructure and outfall location data have been combined with current outfall inspection data to develop a comprehensive database. Outfall locations are verified in the field during the course of routine inspections as it is needed. There are approximately 800 outfalls in the District, of which 409 are located in the MS4 area. The outfall coordinates obtained by Global Positioning System (GPS) have been recorded in the MS4 Program outfall database. The database contains information on the shape, size, construction material, locations descriptors as well as multiple photographs of each outfall. In FY 2007, the GPS coordinates were converted to the Maryland State Plane coordinate system, which is the Office of the Chief Technology Officer (OCTO)-Geographic Information Systems (GIS) standard. The comprehensive outfall database is has been converted to a geodatabase for enhanced utility mapping applications.

II.B Monitoring Program

The 2009 Discharge Monitoring Report will provide data and analysis of the dry weather monitoring program and the wet weather screening program.

The District continues to monitor for oil and grease in the Hickey Run watershed as part of its Water Quality monitoring program. Auto repair facilities continue to be targeted for education on proper disposal of waste oil. As of FY 2007, Hickey Run is no longer on the 303(d) list of Impaired Waters for oil and grease. Throughout FY 2009, DDOE continued to work toward the installation of a large trash trap and oil separator at the Hickey Run outfall located on the property of the National Arboretum.

II.C Management Programs

II.C.1 Commercial, Residential, and Federal and District Government Areas

The District has developed and continues to implement a program to control stormwater discharges from commercial, residential, federal and District-government areas. The management plan for stormwater pollution control on commercial, residential and federal and

District government areas entails a mixture of programs emphasizing structural and non-structural BMPs and educational programs. Stormwater pollution control activities by District agencies not party to the Permit are listed in Appendix A. The District provides guidelines, such as the *2003 District of Columbia Standards and Specifications for Soil Erosion and Sediment Control* and the *Storm Water Management Guidebook,* that have been developed to help control stormwater pollution from commercial, residential, federal and District government areas. In FY 2007, DDOE began the process to revise and update the *Storm Water Management Guidebook,* selecting the Center for Watershed Protection to conduct this work. The current documents were provided to EPA as attachments to the 2007 Annual Report.

Programs and/or activities related to Permit compliance include:

- Functional landscaping programs, such as the use of structural BMPs and riparian buffer zones on new roadway construction.
- Low Impact Development (LID) practices.
- Catch basin cleaning, maintenance of the MS4, street sweeping, and leaf collection.
- Rain leader disconnection.
- Education programs on pet wastes, fertilizers, and landscaping.
- Methods of measuring the performance of activities.
- Strengthening erosion control for new construction.
- Continuing to work with federal and District facilities in order to implement and maintain stormwater pollution controls on new and re-build construction.

II.C.2 Industrial Facilities

The establishment of a comprehensive database of industrial facilities in the District and the initiation of the wet weather screening program are primary components of the Industrial Facilities Program. The implementation of the management plan for industrial facilities will help to control and reduce stormwater pollution from industrial facilities in accordance with the requirements of the CWA. The industrial facilities database is a compilation of industrial facilities within the MS4 area.

II.C.3 Construction Sites

DDOE has an inspection and enforcement program for construction sites in commercial and residential areas and is working continually to strengthen its erosion control program for new construction. The management plan for stormwater pollution control on construction sites

emphasizes the review and approval process for erosion and sediment control plans, and the inspection and enforcement procedures of the construction permitting program, as well as construction site and plan educational programs, traffic pollution control strategies, and air pollution compliance activities.

DDOE has refined and updated the District's automated database system for tracking stormwater management facilities inspected for maintenance to include tracking of construction projects with stormwater management BMPs. The number of inspections of construction sites in FY 2009 was 7,648.

II.C.4 Flood Control Projects

Flood Insurance Rate Maps (FIRMs) for the District are currently being revised by the Federal Emergency Management Agency (FEMA) using the latest technologies and the most current data. On March 26, 2008, FEMA issued a letter of final determination (LFD) for the District's proposed digital flood insurance rate maps (DFIRMS) and flood insurance study (FIS). However, due to major objections from the District community regarding the revised maps, FEMA rescinded the LFD on June 16, 2008. The purpose of the rescission was to give the District the opportunity to complete design and construction work to improve the 17th Street levee as part of a larger partnership with federal agencies to provide flood protection for the monumental core. The District met with FEMA throughout FY 08 to define the issues and develop a schedule of tasks and commitments that the District must meet for FEMA to issue a new LFD. Design has been completed and we expect construction to be completed in FY2011. Upon completion, if the US Army Corps of Engineers determines that the As-Built levee has met the appropriate standard, FEMA will re-determine the extent of the new 1% chance flood boundary.

II.C.5 Monitor and Control of Pollutants from Municipal Landfills and Other Municipal Waste Facilities

There are no active landfills within the boundaries of the District**.** In FY 2007, EPA conducted a field audit of the Benning Road municipal transfer station, which is located in the MS4 area of the city. The audit report was issued on January 21, 2008. No program deficiencies were noted for the Benning Road facility.

II.C.6 Monitor and Control of Pollutants from Hazardous Waste Sites

DDOE continues to update federal and District facilities information as needed based on the MS4 monitoring effort. DDOE has prepared a database that includes facilities in the District that are registered with federal and state regulators because they generate, store, or have released hazardous materials.

DDOE continues to conduct inspections of Resource Conservation and Recovery Act (RCRA) hazardous waste facilities to determine compliance with hazardous waste regulations. DDOE conducted inspections at several RCRA Large Quantity Generator (RCRA-LQG), Small Quantity Generator (RCRA-SQG), and Conditionally Exempt Small Quantity Generator (RCRA-CESQG) facilities within the District between October 1, 2008 and September 30, 2009.

II.C.7 Pesticides, Herbicides, and Fertilizer Applications

The DDOE Pesticide Management Program outlines the mission, goals and implementation of the regulations that affect commercial applications of pesticide and herbicides. The program outlines the requirements for certification and training for the application of pesticides and herbicides in the District. The program also outlines requirements for enforcement actions and programs for protecting endangered species, ground water, and workers. Revised District pesticide regulations (20 DCMR §§ 20-25) are currently being reviewed by DDOE. Control of pesticide, herbicide, and fertilizer applications has also been integrated into the Public Education Program.

II.C.8 Deicing Activities

The District uses a 23 percent sodium and 77 percent water solution as a pretreatment on bridge surfaces to reduce pollutant loading to receiving waters from deicing activities. Brine is currently stored at the maintenance facility located at 401 Farragut Street, NE, and salt is stored at three other salt dome facilities.

II.C.9 Snow Removal

Dumping of snow in areas adjacent to water bodies, wetlands, or drinking water sources is not part of the District's snow management plan, and will be avoided except as necessitated by extreme emergencies. These aspects of the snow removal plan are routinely reviewed for applicability; no revisions are needed at this time. Although there were several occasions when snow plowing was necessary, no snow removal from DC streets was necessary during FY 2009.

II.C.10 Detect and Remove Illicit Discharges

DDOE with the support of DCWASA maintain an Illicit Discharge Detection and Elimination (IDDE) program, issue notices of violation as needed, and monitor corrective actions taken by violators. Illicit connections to the MS4 may also be referred to the Plumbing Inspection Branch, Building and Land Regulation and Administration, Department of Consumer and Regulatory Affairs (DCRA) for additional enforcement action. Illicit discharge detection and enforcement procedures have been developed in conjunction with dry weather outfall screening, inspection of BMPs, and public education programs. These procedures were part of the Draft *Water Quality Division Enforcement and Compliance Manual* but have now been replaced with *The Environmental Enforcement Process in the District of Columbia*. Both documents were provided as attachments to the 2007 Annual Report. *The Environmental Enforcement Process* was also included in the 2009 SWMP.

WASA continues to conduct the floatables reduction program utilizing skimmer boats on the Potomac and Anacostia Rivers. Activities to remove floatable debris and trash from the rivers as well as accumulated trash on river banks continue five days a week using skimmer boats and support boats.

II.C.11 Enforcement Plan

DDOE enforcement procedures are now addressed in *The Environmental Enforcement Process in the District of Columbia*. This document details the written enforcement strategy outlining how enforcement actions, such as violation notices, notices of infraction, and stop work orders, are issued and adjudicated. The strategies outlined in the manual provide the standard operating procedures for inspection and enforcement efforts within the District.

In FY 2007, the Office of Inspection and Enforcement was created within DDOE. During FY 2009, the Inspection and Enforcement Branches within the Water Quality and Water Protection Divisions continued to use a GIS based tool to locate SWM facilities. The use of the GIS tool has improved efficiency in conducting inspections for maintenance.

DDOE investigates illicit discharges and enforces the District water quality regulations. During FY 2009, DDOE personnel conducted a total of 385 inspections and investigations. This number includes illicit discharge investigations, emergency response, outfall inspections, and targeted facility inspections.

II.C.12 Public Education

WASA, DDOT, DPW and DDOE conduct public education activities related to stormwater pollution. During FY 2009, the DDOE's Stormwater Management Division presented cash awards to two students who presented projects on stormwater-related issues at the District-wide Mathematics, Science and Technology Fair at McKinley Technology High School. Public education programs continue to include an environmental education resource center, public meetings, environmental fairs, conservation education, teacher training workshops, and grants for promoting pollution prevention.

II.D Program Funding

The District's Stormwater Permit Compliance Amendment Act of 2000 established a Stormwater Permit Compliance Enterprise Fund to provide money for implementing the activities required by the 2004 MS4 Permit. Starting July 1, 2001, WASA began collecting a stormwater fee for the Enterprise Fund. This fee structure was designed to raise $3.1 million/year, which at the time was the estimated cost of the activities required to comply with the 2000 MS4 permit. In 2008, in response to the DDOE/EPA MS4 Letter Agreement, DDOE updated its estimate of permit compliance costs to approximately $13.2 million per year. In order to secure this funding, DDOE proposed and enacted the first stormwater fee adjustment since the fee's inception. As a result of this adjustment in November 2008, the stormwater fee was billed on the following schedule:

- Single Family Residence: $1.98 per month
- Multi-Family Residence: 4.4% of water and sewer bill
- All other properties: 6.3% of water and sewer bill

In addition, in July of 2007 Councilmember Jim Graham directed the District Department of the Environment to convene a Task Force to address stormwater management issues in the District of Columbia. This Task Force was charged with making legislative recommendations on a number of stormwater-related topics, including the adequacy of current funding mechanisms for stormwater programs. The Task Force met several times between November 2007 and March 2008, and prepared a number of legislative recommendations for the DC Council's consideration. Among these was a recommendation to base the Stormwater Fee on impervious surface, as well as granting the DDOE Director the authority to adjust stormwater fees as necessary. A record of the Task Force proceedings, including background documents, detailed

meeting summaries, and presentations, can be found on DDOE's website at http://ddoe.dc.gov/ddoe/cwp/view,a,1209,q,497143.asp.

The DC Council incorporated many of these recommendations which were incorporated into the Comprehensive Stormwater Management Enhancement Amendment Act of 2008. A copy of this legislation is included as Appendix B. This Act authorizes an impervious stormwater fee, and became effective in March of 2009. In May of 2009, DDOE revised the stormwater fee structure to be based on impervious surface. A property's impervious surface area is a more direct measure of the stormwater runoff generated by that property, and therefore provides a more accurate and equitable method for apportioning the District's stormwater management costs among ratepayers. The District's impervious stormwater fee uses Equivalent Residential Units (ERUs) of 1,000 square feet as billing units (1,000 square feet was determined to be the average amount of impervious surface on residential properties in the District). Each ERU in the District is charged $2.57 per month for the stormwater fee. Single family residences are billed based on one (1) ERU, while all other properties will be charged based on their total impervious surface area, rounded down to the nearest hundred square feet and converted into ERUs.

III. STANDARD PERMIT CONDITIONS

III.A Next Permit Cycle

The District's current Permit expired in August 2009, has been administratively extended and remain in force until a new permit is issued.

III.B Permit Administration

An organization chart for the agencies responsible for MS4 permit compliance is shown in Table 2. The responsibilities of each agency are set forth in inter-agency MOUs and an associated matrix of commitments. The MOUs and matrix have been updated to reflect the requirements contained in the 2004 MS4 Permit and the 2007 Permit Enhancement Agreement.

III.C Legal Authority

Performance Standard: The District maintains the legal authority to control MS4 discharges through the application of the regulations provided in the District of Columbia Municipal Regulations (DCMR). In addition, the District developed and maintains the legal authority to enforce erosion and sediment control and the control of stormwater pollution within the MS4 drainage area.

MS4 Discharges

The MS4 Permittee has the legal authority to control all discharges into the waters of the District under the Comprehensive Stormwater Management Enhancement Amendment Act of 2008, D.C. Official Code § 8-151.51 *et seq.,* Storm Water Permit Compliance Amendment Act of 2000, D.C. Official Code §34-2202.02(a) *et. seq*., the Water Pollution Control Act of 1984, D.C. Official Code § 8-103.01 *et. seq.,* and the Soil Erosion and Sedimentation Control Act of 1977, codified in 21 DCMR §§ 500-507, and the implementing regulations in DCMR Title 21 Chapters 5 and 11.

Erosion and Sediment Control

The Water Pollution Control Act of 1984, as amended, D.C. Official Code § 8-103.01 *et. seq.*, and the Sedimentation Control Act of 1977, as amended, codified in 21 DCMR §§ 500-507 provide the legal authority to enforce the erosion and sediment control provisions of the SWM Plan. The SWM regulations will be updated to require construction site managers to have erosion control training.

Table 2. Agencies Responsible for District of Columbia MS4 Permit Compliance.

Responsible Agency*	Compliance Activity
DDOE	MS4 program administration
	Source identification
	Wet/dry weather monitoring program
	Wet weather screening program
	Flood control projects review
	Pollutant control from hazardous waste sites
	Pesticide, herbicide, and fertilizer application
	Promoting LID practices
	Illicit discharge detection
	Sediment erosion control
	Inspection/enforcement
WASA	Floatables reduction program
	Pollution prevention
	Catch basin cleaning
	Illicit discharge detection
DPW	Street sweeping
	Seasonal leaf and holiday tree collection program
	Pollution prevention
	Household hazardous waste collection
	Stormwater management at municipal waste transfer stations
DDOT	Pollutant reduction from vehicles and roadways
	Pollution prevention
	LID practices in public right of way (ROW)
	Deicing and snow removal
DRES	LID practices on District-owned, DRES managed properties
	Pollution prevention
All Agencies	Public outreach and education
	Annual reporting to EPA and Mayor
	Monthly Task Force meetings

*Agency addresses:
DDOE: District Department of the Environment, 1200 First Street, NE, Fifth Floor, Washington, DC 20002
DDOT: District Department of Transportation, 64 New York Avenue, NE, Washington, DC 20002
DPW: Department of Public Works, 2000 14th Street, NW, Washington, DC 20009
DRES : Department of Real Estate Services, 2000 14th Street, NW, Washington, DC 20009
WASA: Water and Sewer Authority, 5000 Overlook Avenue SW, Washington, DC 20032
OPEFM: Office of Public Education Facilities Modernization, 2400 E. Capitol Street, SE
Washington, D.C. 20003

Illicit Discharges

Removal of illicit connections to the MS4 is enforced through the Plumbing Inspection Branch of DCRA. Enforcement authority prohibiting the dumping of used motor vehicle fluids is provided in D.C. Official Code § 8-103.07(e).

In FY 2009, there were no additional laws added to the legal authority of the District regarding SWM. The current laws are deemed adequate to provide compliance with the Permit. However, during FY 2009 work continued on revisions to the District's Stormwater Management regulations. An overview of the regulatory proposal was included in the 2009 SWMP.

III.D Source Identification

Part II of the Permit describes the requirements for Source Identification. The Permit requires the District to compile and submit information and significant changes affecting the MS4 due to land use activities, population estimates, runoff characteristics, major structural controls, landfills, publicly owned lands, and industries. A summary of these compliance activities follows.

III.D.1 Land Use Activities

The District is highly urbanized, with little available land for further development. The MS4 drainage area contains approximately 26,500 acres (two-thirds of the District). The combined sewer overflow (CSO) drainage area encompasses approximately 12,640 acres (one-third of the District). All new development and redevelopment of existing areas is subject to the District's stormwater regulations with a review by DDOE. The land use and impervious area must be indicated on all plans submitted to DDOE for review and inspection. No single development plan reviewed to date has sufficient land area to make a significant impact to the MS4 system. The cumulative impacts of the proposed and new developments reviewed in FY 2009 have not resulted in a significant change for the existing land use activities in the portion of the District served by the MS4. Table 3 provides the existing land use by planning area in the District (MS4 and CSO).

III.D.2 Population Estimates

The Bureau of the Census reported in the 2000 Census of Washington, DC that there were 572,059 people residing within the District. A population estimate for 2005 projected that the population could decline by 3.7 percent to 551,136 and then decline by an additional 3.9 percent to 529,785 for 2010, the year of the next complete census. While the population decline over this period is not considered significant with respect to sources of pollution in stormwater, a continued trend in population reduction could result in future change. Additional details of the 2000 U.S. Census for the District can be found at http://www.census.gov/.

III.D.3 Runoff Characteristics

As noted in Section III.D.1, no significant changes in land use activities were identified in FY 2009. Therefore, no significant changes in runoff characteristics were identified in the MS4 drainage area as a result of land use activities**.**

Table 3. Acres of Existing Land Use by Planning Area, 2005.

	Capitol Hill	Central Washington	Far Northeast & Southeast	Far Southeast & Southwest	Lower Anacostia Waterfront/Near Southwest	Mid City	Near Northwest	Rock Creek East	Rock Creek West	Upper Northeast	Citywide	Percent (%)
Road Rights-of-Way	759	899	1,338	906	477	628	716	1,311	1,760	1,223	10,018	25
Single Family Detached Homes	6	0	775	164	7	15	84	919	2,324	641	4,936	13
Single Family Attached Homes/ Row Homes	520	10	641	328	30	497	340	606	290	611	3,874	10
Low-Rise Apts.	43	10	436	555	106	136	110	85	185	189	1,856	5
High-Rise Apts.	4	26	20	44	26	59	65	25	109	25	402	1
Commercial	97	448	129	63	122	144	220	106	170	296	1,795	5
Industrial	5	16	12	5	42	21	6	16	0	295	418	1
Local Public Facilities	72	47	154	441	47	54	75	131	67	102	1,110	3
Federal Facilities (excl. parks)	47	481	4	1,067	409	1	1	412	283	76	2,781	7
Institutional	42	67	71	117	22	142	249	163	659	730	2,262	6
Permanent Open Space	296	678	1,321	729	533	141	354	878	2,011	1,038	7,980	20
Rail, Communication, Utilities	1	36	223	74	11	97	6	83	4	321	857	2
Vacant	66	58	179	188	51	36	33	22	111	99	843	2
TOTAL LAND	1,958	2776	5,305	4,687	1,884	1,971	2,259	4,757	7,982	5,645	39,225	100.0
Water	*117*	*509*	*135*	*1,791*	*1,295*	*46*	*239*	*19*	*313*	*89*	*4,554*	
TOTAL	2,075	3,284	5,440	6,474	3,179	2,017	2,498	4,776	8,288	5,735	43,766	

Source: Office of Planning, Comprehensive Plan District Elements, December 2006

III.D.4 Major Structural Controls

Ongoing maintenance of the MS4 infrastructure including structural controls is conducted to ensure consistent performance of MS4 components. There have been no major structural controls added or removed from the MS4 conveyance system in FY 2009. Table 4 provides a list of traditional and non-traditional BMPs by structure type and the number approved or installed within the District during FY 2009. The SWM facilities listed include both facilities approved through the District's regulatory review process as well as those installed as part of DDOE incentive programs.

Table 4. Stormwater Facilities by Structure Type approved/installed during FY 2009.

BMP	BMP Structure Type	Number
Aqua-Shield/Filter	Dry Detention Pond and Hydrodynamic Structures	0
Basin, Detention	Wetponds and Wetlands	0
Basin, Infiltration	Wetponds and Wetlands	0
Basin, Retention	Wetponds and Wetlands	0
Baysaver	Dry Detention Pond and Hydrodynamic Structures	6
Bioretention	Filtering Practice	11
Catch Basin	Water Quality	0
Downspout Filter	Filtering Practice	1
Downstream Defender	Dry Detention Pond and Hydrodynamic Structures	0
Dry Pond	Dry Detention Pond and Hydrodynamic Structures	1
Dry Well	Dry Detention Pond and Hydrodynamic Structures	4
Enviropod	Catch basin insert	0
Ex-filtration trench	Filtering Practice	8
Filterra/Tree Box	Filtering Practice	1
Green Roof	Impervious Surface Reduction/Non-structural Practices	4
Infilteration Trench	Infiltration Practice	12
Leaching Tank	Filtering Practice	0
Modified Manhole	Dry Detention Pond and Hydrodynamic Structures	3
Modular Rain Tank	Filtering Practice	0
Oil-Grit Separator	Dry Detention Pond and Hydrodynamic Structures	2
Permeable Pavement	Impervious Surface Reduction	0
Rain Barrel	Dry Detention Pond and Hydrodynamic Structures	0
RainStore System	Infiltration Practice	1
Sandfilter	Filtering Practice	1
Sandfilter, bisected CMP	Filtering Practice	1
Sandfilter, underground	Filtering Practice	3
Storm Chamber System	Infiltration Practice	0
Stormceptor	Dry Detention Pond and Hydrodynamic Structures	2
Stormfilter	Dry Detention Pond and Hydrodynamic Structures	13
Underground Retention	Infiltration Practice	2

Vegetated Biolfilter, Swale, Strip	Filtering Practice	10
Water Quality Inlet	Dry Detention Pond and Hydrodynamic Structures	5
Water Quality Manhole	Dry Detention Pond and Hydrodynamic Structures	2
Water Quality Swale	Dry Detention Pond and Hydrodynamic Structures	1
Wetland	Wetponds and Wetlands	2
Total		**96**

Source: BMP Types defined from information provided on the Chesapeake Bay Tributary Tools website: http://www.chesaeakebay.net/info/wqcriteriatech/tributary_tools.cfm#resources

III.D.5 Landfills

There are no active landfills within the District.

III.D.6 Publicly Owned Lands

The National Park Service (NPS) is the primary public entity holding land within the MS4 area of the District. According to Government Accounting Office (GAO) Report No. GAO-05-378, NPS manages 356 Federal properties in the District covering approximately 6,735 acres of land. A majority of NPS properties are referred to as circles, squares and triangles less than one acre in size; however, parks and parkways represent approximately 93 percent of the total acreage for the 356 properties.

The U.S. Department of Agriculture Agricultural Research Service (USDA ARS) runs the National Arboretum. The Arboretum is 446 acres in size and has not increased or decreased in size in the past five years.

The DC Department of Parks and Recreation (DPR) also controls acreage in the District. The Parks and Recreation Master Plan website (http://www.bakerprojects.com/dprmasterplan/) states that there are approximately 1,000 acres of land managed by DPR. The amount of publicly owned lands in the District has increased slightly as the federal government transfers lands over to the District. Table 5 presents the acreage of publicly owned land in 2009.

DDOT manages the District's public right-of-way, which is comprised of interstates, freeways and expressways, principal arterial roads, minor arterial roads, collector streets, local streets, alleys, and any associated sidewalks. These areas comprise 10,174 acres, or approximately 26% of the total land area in the District.

Table 5. Acreage of Publicly Owned Lands as of 2009.

Agency	Total Acres
National Park Service	6,735
United Stated Department of Agriculture Agricultural Research Service	446
DC Department of Parks and Recreation	~1,000
DC Housing Authority	280
District Department of Transportation	10,174

III.D.7 Industries

No significant changes in industrial activity were identified in FY 2009. The Industrial Facilities Database has been updated and is discussed in detail in Section III.F.2 of this report. The database will continue to be used to track changes in industrial activity in the District.

III.D.8 Electronic Mapping

Existing mapping of the separate storm sewer conveyance system has been digitized and combined with the data regarding storm sewershed and outfall locations to create a database of the MS4 infrastructure. Verification of the District outfalls is on-going. The database contains information including outfall size, type and condition. There are approximately 800 outfalls in the District, of which 409 are located in the MS4 area. Table 6 presents the number of outfalls in the MS4 by watershed. The remaining outfalls are located outside of the MS4.

Table 6. Number of Outfalls Identified by Watershed

Watershed	Number of Outfalls
Anacostia River	155
Potomac River	122
Rock Creek	132

The District has a GIS layer of the federal and local roads that are part of the MS4 system. WASA has completed mapping of the sewer network and infrastructure. A GIS dataset including outfalls, gravity lines, junctions, catch basins, and other components of the conveyance system is available. GIS datasets are regularly maintained and updated as information becomes available. Basic geographic information compiled to date is included in Table 7.

III.D.9 GIS Stormwater Model

Part V of the Permit describes reporting requirements for the development of a GIS stormwater model. The stormwater pollution control model uses GIS to compile information concerning the District. Specific GIS information regarding the MS4 system, outfall inspection, pollutant estimates provided by the District and federal government agencies have been added to the MS4 data.

Both WASA and DDOE use storm and water quality modeling for planning and maintenance activities. At DDOE, storm water modeling is done to compute TMDL and to prepare TMDL implementation plans. The TMDL implementation plans will contain the location of control system per sewershed or subwatershed. At WASA, storm water modeling is routinely applied to evaluate the condition and sewer capacity of critical elements of the sewer system. Results of the modeling analysis help WASA with maintenance activities and schedules.

Performance Standard: The District maintains a database of existing mapping information and updates the database as pertinent data are developed.

WASA is currently using the Danish Hydraulic Institute's Mike Urban storm water quality model, Version 2008. Version 2008 integrates the Model of Urban Sewers (MOUSE) and ArcGIS functionality. This is a valuable tool in determining how a collection system responds to rainfall events, the causes of overloading, (e.g., backwater effects or insufficient capacity), and the impacts of improving key components in the collection system. WASA runs the model to plan for upgrades in the collection system and other rehabilitation projects of the MS4 infrastructure. Please refer to Section IV.D.10 for more information on modeling.

Table 7. OCTO-GIS Information.

Basic Geographic Information Compiled – DC Base Map Layer
District Boundaries
DC property (Schools, DPR, Housing)
Street maps and names
Schools
Federal building locations
Waterway and water body information
Zoning information
Floodplains
Field Verification Information
MS4 piping system
Outfall location information (type, size, condition)*
Storm drain locations
GIS Data from the MS4 Task Force Agencies
Structural BMP locations
Non-structural BMP locations
School yard and community gardens
Illicit discharge and inspection activities
DPW street sweeping routes
DDOT BMP installations on roadway projects
WASA catch basin maintenance work

* Conducted by EA Engineering, Science, and Technology Inc. under contract to WASA

DDOE has established an MOU with the District's Office of the Chief Technology Officer to provide onsite staff support for GIS. OCTO-GIS personnel are assisting DDOE in obtaining and consolidating District GIS data, and using it to develop analyses and GIS products.

FY 2010 Goals: To compile additional GIS data from other District agencies.

III.D.10 TMDL Modeling

The TMDLs for District waters have been developed using well known water quality modeling tools such as Hydrological Simulation Program - FORTRAN, Water Quality Analysis Simulation Program, and Environmental Fluid Dynamics Computer Code. These models were used to estimate loads from point and nonpoint sources, simulate fate and transport of contaminants, and develop allocations. The models and various technical approaches used are described in the relevant TMDL documents (available at DDOE website at: http://ddoe.dc.gov/ddoe/cwp/view,a,1209,q,495456.asp).

III.E Monitoring Program

III.E.1 Outfall Monitoring

The District of Columbia Municipal Separate Storm Sewer System (MS4) Permit (Permit) requires that three wet weather and two dry weather sampling and analyses be conducted as part of the characterization of the storm water discharges. The sampling schedule followed a watershed based monitoring approach whereby the stations within one of the three watersheds are to be sampled within a given calendar year. Table 8 below shows the schedule for the most recent cycles of monitoring and reporting for each watershed.

Table 8. Monitoring Cycle in the District of Columbia

Watershed	Monitoring Year	No. of Stations	DMR Due Date
Anacostia River	2008	9	August 19, 2009
Rock Creek	2009	6	August 19, 2010
Potomac River	2010	7	August 19, 2011

According to the schedule, the principal milestones for FY 2009 (Oct 2008 – Sept 2009) were to complete the Anacostia River watershed monitoring by December 2008, to complete and transmit the Discharge Monitoring Report (DMR) by August of 2009, and to begin the Rock Creek watershed monitoring by January 2009.

The monitoring schedule was modified under the corrective action plan (CAP) submitted to the U.S. Environmental Protection Agency (EPA) on July 3, 2008.

At the end of the 2008 calendar year, the Anacostia River watershed monitoring requirement was yet to be completed. It became necessary for DDOE to continue to sample the Anacostia River watershed through the first quarter of FY 2009, in addition to the scheduled Rock Creek and the Potomac River watersheds sampling and reporting. The Discharge Monitoring Report for the Anacostia River was completed and submitted to the EPA on schedule.

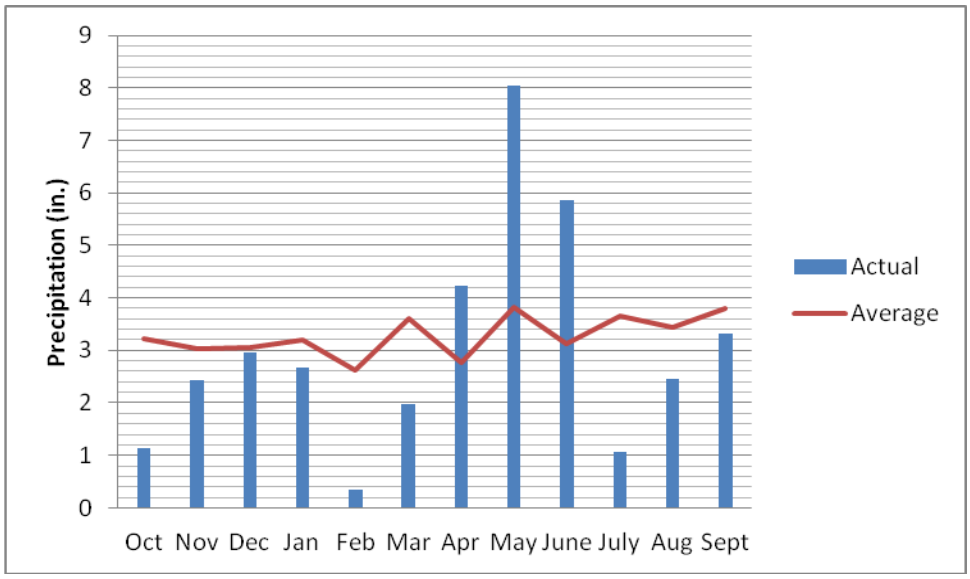
Under the CAP a total of sixty four (64) wet weather samples and nineteen (19) dry weather samples were to be analyzed for over one hundred and forty (140) parameters including volatile

organic compounds, acid and base neutral extractable compounds, pesticides, PCBs, metals, and other pollutants. The sampling locations cover all three watersheds, the Potomac River, the Anacostia River, and Rock Creek.

In order to meet the accelerated schedule required under the CAP, the DDOE established and maintained communication with the sampling contractor to assure the appropriate level of staff, equipment and weather monitoring is achieved and maintained. The efforts and the favorable weather conditions enabled the collection and analysis of fifty (50) samples, nearly double of what would be required by the MS4 permit in a normal year.

Monthly average and observed rainfall recorded at the Ronald Reagan Washington National Airport for FY 2009 are summarized in Figure 1. As can be seen from the Figure, the rainfall amounts were fair to favorable with the exception of February and July. It is to be noted that the intensity, duration and antecedent conditions impose additional constraint to the storm events that can be sampled.

Figure 1. Average and Observed Monthly Precipitation at Ronald Reagan Washington National Airport for FY 2008



Average concentrations of Cadmium, Fecal Coliform bacteria, Total Nitrogen, and Total Dissolved Solids have increased between the 2006 and 2009 monitoring cycles. There appears to be a decrease in all other pollutants sampled for between these two monitoring cycles. Furthermore, Arsenic, Lead and PAH's which have previously been detected in Anacostia monitoring site samples, were not found in levels sufficient for detection during rotation 3.

Future rotations of wet weather sampling will produce a more precise evaluation of the historic trends for the selected parameters, and indicate the effectiveness of pollution reduction measures being undertaken within the Anacostia River watershed.

Table 9 below shows the difference in annual event mean concentrations for the analytes sampled for in 2006 and 2009.

Table 9 - Differences in Mean Concentrations in the Anacostia River MS4 Drainage in 2006 and 2009

Parameter	Roation 2[a] (2005-2006)	Rotation 3 (2008-2009)	Percent Change
Arsenic (µg/L)	1.8	ND	
BOD (mg/L)	124	21.44	-83%
Cadmium, total (µg/L)	0.34	1.36	300%
Chlordane (µg/L)	ND	ND	
COD (mg/L)	305	58.4	-81%
Copper (µg/L)	64.9	29.8	-54%
DDD (µg/L)	ND	ND	
DDE (µg/L)	ND	ND	
DDT (µg/L)	ND	ND	
Dieldrin (µg/L)	ND	ND	
Fecal Coliform (mpn)	24,500	39,362	61%
Heptachlor expoxide (µg/L)	ND	ND	
Lead (µg/L)	28.5	ND	
Nitrogen, total (mg/L)	3.42	4.39	28%
Oil & Grease (mg/	3.45	2.49	-28%
PAHs (µg/L)	67.6	ND	
PCBs, total (mg/L)	ND	ND	
Phosphorus, dissolved (mg/L)	0.244	0.161	-34%
Phosphorus, total (mg/L)	0.673	0.291	-57%
Total Dissolved Solids (mg/L)	120	379	216%
Total Suspended Solids (mg/L)	121	32.49	-73%
Zinc (µg/L)	169	66.5	-61%

III.F Management Programs

The District continues to monitor existing structural BMP and LID projects as well as implement new projects in the MS4 area.

III.F.1 Commercial, Residential, and Government Areas

Part III.B.1 of the Permit requires the District to implement the October 19, 2002 SWM Plan and to reduce the discharge of pollutants into the District MS4 from residential, commercial, Federal and District-owned areas. The District has developed and continues to implement a program to control stormwater discharges from federal and District government areas. The District does not have jurisdiction over federal lands to require the installation of structural retrofits to control stormwater pollutants from federal lands. Some federal properties have their own NPDES permits such as Bolling Air Force Base. District regulations require federal agencies to comply with the District's erosion and sediment control regulations with respect to new construction and re-construction on federal properties in the District. In addition, DDOE signed agreements with DDOT and the General Services Administration (GSA), which require federal contractors working on buildings or highway improvements to comply with the District's erosion and sediment control regulations. DDOE also reviews construction plans submitted by DPW, DDOT and WASA with respect to these erosion and sediment control requirements.

The management plan for stormwater pollution control on commercial, residential and federal and District government areas entails a mixture of programs emphasizing structural and non-structural BMPs and educational programs:

- District regulatory requirements, such as the *District of Columbia Standards and Specifications for Soil Erosion and Sediment* and the *Storm Water Management Guidebook, 2003*.
- Functional landscaping programs, such as the use of structural BMPs and riparian buffer zones on new roadway construction.
- LID practices.
- Catch basin cleaning, maintenance of the MS4, street sweeping, and leaf collection.
- Rain leader disconnection.
- Education programs on pet wastes, fertilizers, and landscaping.
- Methods of measuring the performance of activities.
- Strengthening erosion control for new construction.

- Continuing to work with federal and District facilities in order to implement and maintain stormwater pollution controls on new and retrofit construction.

The following sections detail progress for each activity in FY 2009.

DC Stormwater Manual

Performance Standard: The District requires engineering standards and specification to be followed by all District builders.

The *District of Columbia Soil Erosion and Sediment Control Standards and Specifications* (2003) and the District's *Stormwater Management Guidebook* are followed by all District builders, whether private, commercial, federal or District, for all new and rebuild construction sites. These manuals, which are available to the public at the DDOE offices, encourage builders to use stormwater BMPs for new and rebuild construction through the plan review process.

FY 2009 Activities: In FY 2009, DDOE continued to contract with the Center for Watershed Protection to update the *Storm Water Management Guidebook, 2003* based on the pending revised soil erosion and sediment control and stormwater management regulations. The Guidebook will be updated after promulgation of the new regulation, anticipated to occur in FY 2010.

- During FY 2009, 146 customers were provided technical assistance on issues related to stormwater management and erosion and sediment control.

- During FY 2009, 53 hardcopies of the *Storm Water Management Guidebook* were distributed to the public.

FY 2010 Goals: The District will continue promotion of stormwater BMP and LID practices in construction plans including education on District standards and specifications for erosion and sediment control, stormwater management plans and the DC building permit process.

Functional Landscaping

Performance Standard: The District encourages developers through training sessions and preliminary design review to incorporate functional landscaping techniques in their site development plans.

FY 2009 Activities:

- DDOT construction projects at the following sites include improved functional landscape designs to be constructed in FY2010:
    - 17th St NW includes suspended pavement over soil and permeable pavers
    - Georgia Ave NW includes structural soil and permeable pavers
    - Pennsylvania Ave SE includes root paths for street tree growth
    - Nannie Helen Burroughs Ave NE includes structural soil for tree growth.
- DDOT's Urban Forestry Administration (UFA) manages its planting program to increase survivability through appropriate species selection, oversight, and tracking. UFA is continuing to use its GIS based work management system to improve the tree inventory which allows for data analysis that is used in programmatic planning. In addition, UFA has initiated a volunteer watering and street tree stewardship program to increase survivability. In FY 2009, UFA planted 3428 trees.
- DDOT reviews all development and construction site plans that impact the public ROW to identify opportunities to reduce impervious surface, maximize tree growing space, and minimize storm-water run-off in the public ROW. In FY09, 226 plans were reviewed by DDOT through preliminary design meetings with developers, public space permit applications, and Zoning applications.
- DDOT's UFA is working with the Office of Planning and the Office of Zoning to provide recommendations regarding tree cover requirements in parking lots which will be incorporated into the revised Zoning Regulations. Recommendations were developed during FY08 to increase the percent minimum landscaping, require an overall parking lot canopy coverage, and require a specific minimum caliper inch size and soil volume for each tree in parking lots. A public hearing was held in FY09 and codification is planned in FY10. Final recommendations are available at http://www.dczoningupdate.org/parking.asp?area=pkg.

FY 2010 Goals: The District will continue to provide training, guidance, and recommendations to developers, professional engineers, architects, homeowners, and government officials regarding functional landscaping techniques. DDOT will continue projects to remove pavement and convert them to functional landscape areas using trees and soil. The District will continue tree planting efforts at a rate of at least 4,150 trees annually.

Low Impact Development Practices

Performance Standard: The District promotes the use of LID techniques throughout the District through plan review and educational activities.

FY 2009 Activities: The District continued to promote, encourage, and review the use of LID techniques throughout the District through plan review and educational activities that focus on LID practices. The District continued to review and approve SWM plans encouraging the use of LID techniques in stormwater projects. DDOT is increasing the inclusion of LID techniques in its road construction projects to manage and treat stormwater runoff.

The District's LID review and inspection activities in FY 2009 included the following:

- 13 out of the 151 SWM facilities approved for construction were LID projects.
- Eight federal projects reviewed involve LIDs.
- The District responded to 32 customer complaints on issues related to stormwater management and erosion and sediment control.

During FY 2009, DDOE continued to track green roof projects in the District from the plan review database. The plan review database contains projects that are regulated through the submission of plans because they are over 5,000 sq. ft. in area. GIS was used to determine those located within the MS4 or CSO drainage areas. Thirteen green roof projects for a square footage of 101,766 were approved in FY 2009. Ten of these projects are in the CSO portion of the city and three are in the MS4. They will bring the total square footage of green roof area in the District to 720,735 square feet. The projects approved in FY 2009 are listed in Table 11. The geographic location of the green roof projects can be accessed at the DC Atlas website: http://dcgis.dc.gov/dcgis/cwp/view,A,1192,Q,487938,dcgisNav,%7C30634%7C.asp.

The District has also developed a Master LID Implementation Plan. This provides an overview of the feasibility and status of LID projects that are planned or currently undergoing implementation. The Master LID Implementation Plan is included as Appendix C in this document. Note that this list is preliminary and has not been cleared for utility conflicts. If utility conflicts occur during construction, nearby or similar locations will be selected for LID installations.

Table 11. Green Roof Projects Approved for Construction

Location	Square Footage (sq. ft.)
100 K Street NE	Not Reported
1525 7TH Street NW	3,033
2160-2162 California Street NW	2,850
55M Street SE	Not Reported
800 17th Street NW	15,550
15 K Street NE	Not Reported
3910 Georgia Avenue NW	9,577
340 Florida Avenue NE	Not Reported
1000 Connecticut Avenue NW	16,756
1100 South Capitol Street SE	Not Reported
2357 Rhode Island Avenue NE	Not Reported
415 4th Street SW	30,000
4058 Minnesota Ave NE	24,000
Total Drainage Area	**101,766**

District LID work focused on specific regions and watersheds of the District and included the continuation of design and planning for several projects. In FY 2009:

- Watts Branch Watershed: DDOE worked with the Deputy Mayor's Office for Economic Development to include a bioretention in a planned project at Marvin Gaye Park. In addition, DDOE worked with Washington Parks and People to plant 500 trees throughout the Watts Branch watershed as part of a National Fish and Wildlife Foundation grant for Watts Branch watershed restoration.

- Fort Dupont Watershed: DDOE worked to maintain bioretention cells installed throughout the Fort Dupont watershed in previous fiscal years.

- Pope Branch Watershed: DDOE did not construct any new LID projects in the Pope Branch Watershed in FY2009. However, Pope Branch was the focus area for DDOE's RiverSmart Homes program, discussed in detail in the "Rain Leader Disconnection Program" section of this report.

- DDOE continued work on several LID demonstration projects:

- Contracts are in place for the installation of a stormwater/harvest reuse system at the DPR Lafayette Park. Construction is started in 2009. This project will collect up to 4,000 gallons of runoff from stormwater as well as a children's sprinkler system. The water will be held in underground cisterns that can then be used to irrigate dense native plantings throughout the park.

- Contracts are in place to install green roofs on two Fire Stations (~6,700 square feet in the CSO and 5,600 square feet in the MS4). Installations are occurring through summer 2010.

- The Green Roof Subsidy program originally only offered to properties in the CSO was extended to the MS4 in FY 2009. This program is now available to all District property owners. It provides $5 per square foot of vegetated roof installed (10% upfront, 90% after installation) up to $20,000 per building. Funding is available to install up to 12,000 square feet in the MS4 through FY 2010.

- A second parallel green roof subsidy is being developed to target retrofitting large existing buildings, commercial properties or multifamily dwellings, with vegetated roofs during roof replacement or rehabilitation projects. DDOE has selected the Anacostia Watershed Society (AWS) as the partner to develop and administer this program. This program is intended to be available to both CSO and MS4 properties. Funding is available to install up to 10,000 square feet in the MS4 through FY 2010.

- The environmental flagship school project planned with OPEFM/DCPS at the Woodson High School in Watts Branch was on hold as OPEFM and the DC Council worked out larger budgetary concerns. DDOE believes the project is back on course and construction will begin in 2010. The modernization plan includes a 100% demolition of the existing site. New construction would incorporate green roofs, green walls, harvest/reuse systems, bioretention, and permeable paving. The site design would aim for no stormwater release for rain events less than one inch.

- DDOE is working with the USDA Natural Resources Conservation Service (NRCS) through the LID Grant and Construction Program to provide funds for direct services for the design and construction of LID stormwater control BMPs to be in the District. The first of these projects, the Brent Elementary School Yard Greening Project, was completed in FY 2009. This is a retrofit of an asphalt play area. It includes the removal of approximately 2,000 sf of asphalt around the perimeter of an

approximately 20,000 sf asphalt play area and the installation of a bioretention system to intercept stormwater run off through soil/plants before allowing flow into the existing catchbasins.

- The Nebraska Avenue project includes two streetside bioswales and two bioswales in the triangle near the intersection with Oregon Ave NW. The project is expected to be completed in summer 2010.

- The Metropolitan Branch Trail project started construction in 2009 and it includes a bioretention area and infiltration trenches to manage runoff from the trail.

- DDOT approved the use of a pervious concrete public sidewalk at The Fishing School, an Extreme Makeover Home project, at Meade St & 48th St NE.

- The Nannie Helen Burroughs Avenue NE Great Street project completed design. The project is to be the first "green" street in the District. The design includes three bioretention cells, one bioswale, twelve bioretention planters, 300 feet of porous concrete sidewalk, and several areas of pervious pavers over the tree space. This project will develop an institutional framework and action plan to restore urban watersheds and revitalize an urban artery through the use of an EPA grant from the Green Highway Initiative. As part of the project, DDOT will monitor the water quality from three storm sewer outfalls or catch basins before and after the design and construction of any LID in order to gage the effectiveness of the LID. The extent of this monitoring will be determined based on available funding. Construction is planned to begin in 2010.

- The Pennsylvania Avenue SE Great Street project completed design. The design includes three large bioretention areas, numerous functional landscape areas and tree planting. Construction began in late 2009 and is expected to be complete in 2011.

- The Georgia Ave Great Street project completed design and includes three bioretention areas. The project also converts a half-block lane of roadway and converts it to green space and park area.

- The 11th Street Bridge project will be managing stormwater from the new and replacement bridge through eight bioretention areas, two wet ponds, several grass channels, and infiltration trenches.

- DDOE, DDOT, and WASA have jointly initiated the River Smart DC project to retrofit three sewersheds with green practices based on the Green Buildout Model. The areas will be monitored for pre and post construction runoff to measure the runoff reduction and quantify the benefit of the practices. Green practices will be implemented on public

and private lands and partnerships with Friends of Rock Creek Environment and Casey Trees have been established to complete the project.

- DDOT is initiating several LID retrofit projects to manage road runoff using streetside bioretention, bioswales, curb bumpouts, bioretention planters, and permeable paving:

    - Q St Green Alley: conversion of an alley to a pedestrian pathway and stormwater management area
    - East Beach Drive NW bioswales
    - Fort Dupont St & Q St SE traffic calming
    - Watts Branch: Fitch Pl NE & 57th Pl NE
    - Triangle at Erie St, Pomeroy St, & Morris Rd SE
    - Green Alleys citywide using permeable paving

- DDOT has several projects in the design phase that include LID:

    - Sousa Bridge & Anacostia Freeway ramp at 65% design: bioretention area
    - Minnesota Ave NE at 30% design: stormwater planters along the full length of the roadway
    - Klingle Trail NW beginning Environmental Assessment
    - Oregon Avenue NW beginning Environmental Assessment
    - Broad Branch NW, beginning Environmental Assessment
    - C Street NE from 15th St to 21st St: beginning planning study to achieve traffic calming and create a green street.

- DDOT continues to work both internally and with other District of Columbia agencies to develop a maintenance program for LID/BMPs within the public rights of way. In FY2009, DDOT started working with its Business Opportunity and Workforce Development Center and the University of the District of Columbia to develop a training program for landscape contractors to maintain bioretention areas.

  In FY 2005, DDOE awarded a grant to LID Center, a local non-profit organization, to produce an educational brochure. The brochure was finalized in FY 2007 and was distributed in coordination with DDOE's community outreach and education efforts. DDOE is working on revising this brochure to include practices and updated photos. These brochures are distributed through the DCRA's homeowner resource center and will be available online when the update is finalized.

  Throughout FY 2009 DDOE continued work on revising and updating the District's regulations for stormwater management and soil erosion and sediment control. There has been a high level of stakeholder interest and engagement in these regulations, which led DDOE to convene a stakeholder input process during FY 2009. This process generated a

large volume of comments and suggestions for DDOE's consideration in developing these regulations. As a result, DDOE decided the comments warrant a thorough review, and is devoting additional time to evaluate the public's input in developing the regulatory proposal. When these regulations are promulgated, it is anticipated they will greatly enhance the effectiveness of stormwater management measures employed by new development and redevelopment projects, and will also emphasize the use of LID practices as a first option. Also, due to this delayed promulgation of the new stormwater regulations DDOE is working with Center for Watershed Protection (CWP) to add low impact development practices to the existing 2003 Design Manual. An RFA was released during the summer of 2009 to establish a partner and a contract to revise the updated manual after the new stormwater regulations have been established.

FY 2010 Goals: The District will work with non-profit organizations to implement LID projects throughout the city. The District will continue to refine and implement the Master LID Implementation List. The District will also continue to expand its efforts to encourage green roof construction via incentive programs. The District will continue to send technical staff to conferences and workshops. DDOT will continue design of LID practices in its roadway projects and continue design of LID retrofit projects.

Catch Basin Cleaning and Street Sweeping Activities

Performance Standard: The District conducts routine catch basin cleaning and street sweeping activities.

FY 2009 Activities: During FY 2009, the District continued catch basin cleaning activities (clean each catch basin once every six months to a year). The District continued street sweeping activities (sweep District streets as often as once every week to no less than once each month). DPW will identify improvements in sweeping frequency/techniques to reduce pollutant loading in the MS4 by evaluating street sweeping practices and schedules.

DPW is responsible for street sweeping activities in the District, while WASA conducts catch basin cleaning as part of its maintenance of the MS4 conveyance infrastructure. DPW continues to provide street sweeping services for the remaining streets and roads in the District. Three basic methods are used to clean and sweep streets: mechanical street sweeping, truck crews, and litter vacuum personnel.

In FY 2009, DPW and WASA continued to implement street sweeping and catch basin activities, respectively. A total of 62,972 miles of streets, freeways, and highways were

cleaned mechanically, and 9,310 miles of streets and roadways were cleaned manually during FY 2009. DPW also swept 3,550 alley segments and collected 7,883 tons of litter from litter receptacles. DPW swept 27,994,137 Square footage of street swept per week in the MS4 area, which can be seen in Appendix H.

Street Sweeping Activities

Table 13 illustrates the nine-year trend of street sweeping activities. The number of alley and street miles doubled in 2002 with the purchase of new equipment, including litter vacuum carts for the manual collection of litter. Street miles increased through FY 2004. The tonnages collected are influenced by the number of warm days permitting outside activities and the response of the public to both anti-littering in the streets and alleys and the continued use of trash cans.

DPW completed the first phase of a Street Sweeping Study in FY 2008. Phase I was conducted to determine the effectiveness of DPW's mechanical sweeping program with regard to removing fine particulate matter from the roadways in the MS4 area. This sampling study analyzed both the composition of materials collected during the sweeping process, as well as the fine particulate matter that remains on the street. It also began a comprehensive review of the DPW street sweeping program, and developed a tentative street classification and sweeping frequency to enhance the District's sweeping program for fine particle removal. Table 12 summarizes the tentative area/street classifications and estimated sweeping frequencies outlined in this study.

In FY 2009, DPW continued Phase II of the street sweeping study, to develop newly designed routes for the signed sweeping areas that accounted for drivability and provided an optimal travel path. Phase II also consisted of developing sweeping regions for unsigned streets that were designated by the District as "environmental hotspots." DPW now requires the recommendation from Phase II to be implemented.

The success of DPW's street sweeping efforts will be measured by an increase in tons collected as a result of street cleaning activities. Street sweepers with the License Plate Recognition System (LPRS) installed will be monitored to determine increases/decreases in compliance with No Parking signs in areas signed for mechanical street sweeping.

Table 12. FY 2009 DPW Street Sweeping Study Tentative Area/Street Classifications and Sweeping Frequencies

Tentative Area/Street Classification*	Estimated Minimum Frequency*	Estimated Maximum Frequency*
Arterials – heavily developed commercial and central business districts with considerable vehicular and pedestrian traffic	9 times per year	16 times per year
Industrial	6 times per year	9 times per year
Residential – residential areas with limited throughway and pedestrian traffic AND neighborhood streets which are used for local purposes only	4 times per year	9 times per year
Central Business District / Commercial – neighborhood business districts and main streets with moderate vehicular and pedestrian traffic	Biweekly	Twice per week

*****Tentative classifications and estimated frequencies. Final classifications and frequencies to be determined as part of Phase II of the sweeping study.

Table 13. Nine-Year Trend Results of Street Sweeping Activities.

Fiscal Year	Street Miles	Alleys Swept*	Litter Receptacles	
			Number	Tonnage
2001	34,000	8,751	4,000	3,400
2002	74,490	16,400	4,000	8,920
2003	102,181	41,238	4,050	9,516
2004	103,163	13,354	4,050	9,346
2005	91,649	20,897	4,050	7,755
2006	72,468	3,781	4,200	6,632
2007	68,189	5,944	4,324	6,388
2008	64,955	4,181	4,445	7,411
2009	62,972	3,550	4,445	7,883

***** Represented as alley miles prior to FY2006, and alley segments beginning in FY 2006

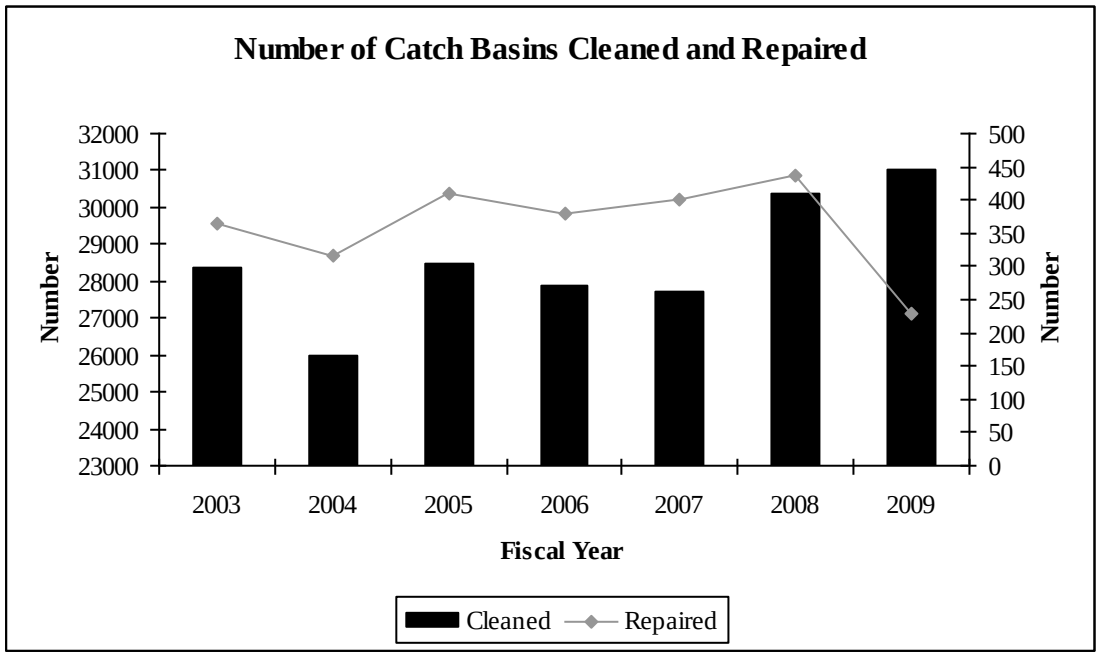
Catch Basin Cleaning Activities

WASA currently conducts the operation and maintenance of pipes and conduits carrying stormwater flow. There are approximately 25,000 catch basins located within the public right-of-way in the District. Approximately two-thirds of these catch basins are in the MS4 area, with the remainder in the CSO area. WASA's cleaning program does not differentiate between the two systems and works to keep all catch basins clean.

Crews operate on a predetermined schedule, cleaning catch basins by ward. During each work day, six two-man crews clean approximately 19 catch basins each. In FY 2009, WASA crews cleaned 31,047 basins for an average cleaning frequency of once every 12 months. Based on the OCTO GIS database, approximately 14,434 catch basins are located in the MS4. WASA crews repaired 229 basins as part of the basin repair program during FY 2009. Repair tasks vary from resetting the tops of the catch basins to redesigning the catch basin to avoid damage, to rebuilding the entire structure.

Figure 2 shows the seven-year trend for the cleaning and repair of the District catch basins. The number of catch basins cleaned and repaired has remained relatively constant since FY 2003.

Figure 2. Seven-Year Trend of Catch Basins Cleaned and Repaired.



FY 20010 Goals: DPW will continue work on Phase II of the street sweeping study which will begin to optimize street sweeping routes in the MS4 area of the city, and determine a final street classification hierarchy and sweeping frequency for each street class. Catch basin cleaning activities will continue at current levels.

Coordination of Leaf Collection

Performance Standard: The District conducts curbside collection of leaves from District residences.

FY 2009 Activities: DPW activities were conducted through their Leaf and Holiday Tree Program, including the seasonal curbside vacuum collection of leaves from residences in the District. Residents rake leaves into piles, place leaves into a tree box space in the front of their property, or bag leaves and place them in the tree box. Leaves are then vacuumed by one of the District's leaf vacuum trucks. DPW coordinates the leaf and holiday tree collections through the following activities:

- Prior to leaf collections district residents are mailed a flyer, which can be found on the web at http://www.dpw.dc.gov/dpw/cwp/.

- The districts within the eight wards comprising the District have leaves collected twice during the collection season on specified days from each ward-district.

- Leaf collection activities for FY 2009 were conducted from November 2008 through January 2009.

As a result of the Leaf and Holiday Tree Program, 8,199 tons of leaves and 99 tons of holiday trees were collected during the collection season. These tonnages represent leaves primarily collected by the vacuum trucks. The resulting tonnage from two bagged leaves "blitz" weekends conducted during the leaf collection season are also included in the total tonnage of leaves collected for FY 2009.

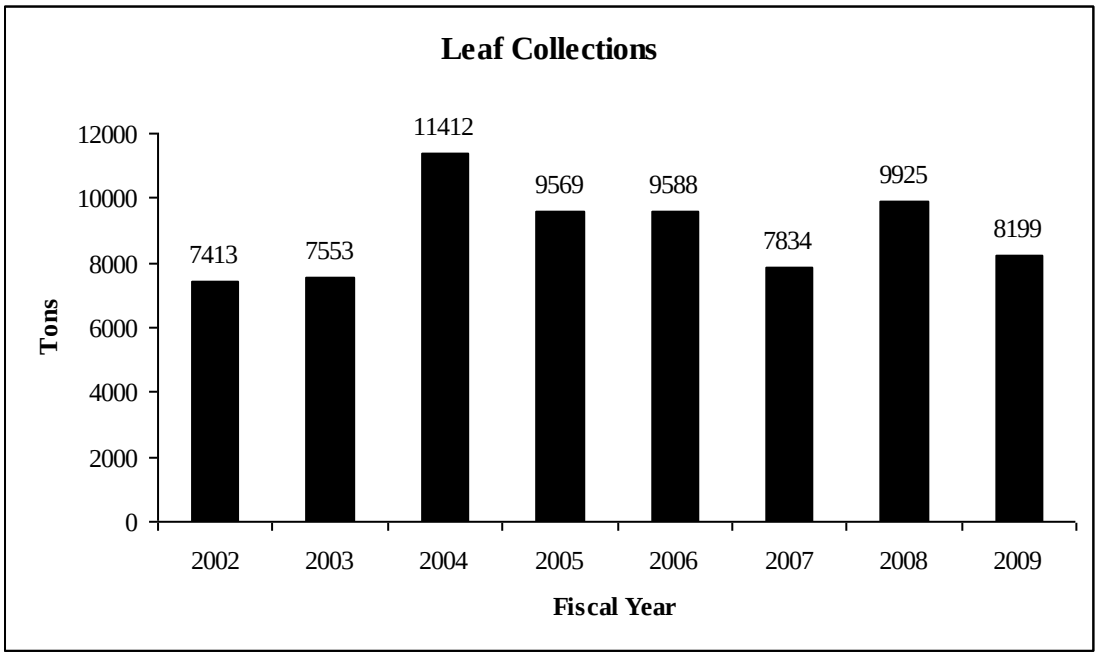
Figure 3 shows the seven-year trend of leaf collection activities in the District.

FY 2010 Goals: The District will continue to collect leaves and holiday trees.

Rain Leader Disconnect Program

Performance Standard: The District will allow disconnection of rain leaders in new construction and existing buildings so that runoff can be channeled to localized infiltration areas. The Rain Leader Disconnect Program was developed to reduce stormwater runoff from government, commercial, and residential activities.

Figure 3. Eight-Year Trends for the Leaf and Holiday Tree Collection Program.



FY 2009 Activities: During FY 2009, DDOE completed the pilot phase of its "RiverSmart Homes" program and began offering it city-wide. "RiverSmart Homes" is a lot-level education and incentive program which encourages property owners to adopt stormwater reduction practices, including rain barrel installation, rain garden installation, "Bayscaping" or landscaping with native plants, planting shade trees, and removing impervious surfaces to replace them with pervious ones.

RiverSmart Homes hinges around "stormwater audits" of the properties of interested homeowners that are performed by DDOE personnel. These audits identify ways that homeowners can reduce stormwater pollution from their property and provide valuable time with homeowners to educate them about stormwater pollution.

Homeowners then choose which landscape enhancements they would like to pursue, with the District covering a cost up to $1,600 per household. If the homeowner chooses low-cost items such as downspout disconnect, rain barrel installation, and tree planting, the city installs the selected items for the homeowner at a low cost ($30 for a rain barrel/$50 for a shade tree). If the homeowner chooses to install a rain garden, change impervious surface to a pervious one, or native landscaping, DDOE works through a grantee. DDOE then oversees the grantee's installation work up to the $1,600 threshold with costs to homeowners amounting to $100 for native landscaping and $75 for a rain garden. For the

installation of pervious surfaces, the DDOE covers the additional cost above installation of a typical cement pad. If the homeowner decides to do more than is covered by DDOE, it is between the homeowner and the contractor to work out payment arrangements. Once the work is complete, DDOE personnel return and inspect the installation. If the work is done properly, the DDOE releases the cost of installation to the grantees that oversee the installation work.

DDOE completed the pilot phase of RiverSmart Homes, which was targeted in the Pope Branch watershed located in southeast Washington, DC. Pope Branch is a 1.6-mile first-order tributary of the Anacostia River that is entirely within DC city boundaries. The primary land uses of the 250-acre watershed are parkland and residential lands. Pope Branch was chosen as the large-scale pilot for the RiverSmart Homes program because of its relatively high homeownership levels, its moderate size, and because its diversity in race and income levels will allow the DDOE to develop and hone its outreach messages for various audiences. DDOE conducted a total of 120 Stormwater Site Audits in the Pope Branch watershed as a part of the RiverSmart Homes pilot program. Of those homes, 102 homes elected to participate in the program.

DDOE followed up with all the homes that participated in the program to survey them on their satisfaction. Of the 40% that returned the survey – 33% were either satisfied or very satisfied with their experience of the entire process and installation. The majority surveyed felt they were "knowledgeable" about stormwater runoff issues after the stormwater site audit. The remaining homeowners were "undecided" or "somewhat" knowledgeable with just a few feeling "very knowledgeable." The top three motivations for becoming a RiverSmart Home were to "beautify your yard," "to help the environment and rivers," and "reduce erosion on your property." After completing the pilot phase, RiverSmart Homes expanded the program city-wide in late spring of 2009 and by the fall of 2009 it had audited an additional 300 homes. By the end of the year we had installed 400 rain barrels, 83 rain garden/BayScaping/permeable pavement sites, and 287 trees.

FY 2010 Goals: For the next two years DDOE will be using a mixture of American Reinvestment and Recovery Act (ARRA) and MS4 funds to pay for RiverSmart Homes installations. DDOE anticipates installing 70 rain gardens, 68 BayScaping (native plant landscaping) sites, 10 pervious paver retrofits, 400 trees on private property, and 288 rain barrels over this time period. In addition, DDOE plans to eliminate the backlog of homeowners and reduce the length of time a homeowner waits for DDOE to conduct the stormwater site audit.

DDOE also anticipates offering a "Marketplace" option within the next year. The marketplace will allow homeowners to choose the option of receiving a stormwater site audit and receiving recommendations from DDOE or vetting and self selecting a contractor certified by DDOE to install either pervious pavers, BayScaping, or a rain garden. DDOE expects the "marketplace" to increase popularity of the program and have developed an online web based tool for residents, businesses, and other property owners. This tool will teach property owners about their property's stormwater discharge as well as actions they can take to reduce stormwater releases. In addition, the tool will allow them to report positive actions they have taken to reduce their environmental impact. This tool will aid DDOE in sending targeted messages to, and receiving feedback from, property owners that opt to register as site users.

Education of Public on Pet Wastes, Fertilizing, and Landscaping

Performance Standard: The District maintains a program to develop and distribute public education materials regarding the control of pet wastes, the use of fertilizers, and the promotion of landscaping practices.

These programs are discussed under Section III.F.12

Methods of Measuring the Performance of Activities

Performance Standard: The District has taken steps to develop a series of tracking methods to measure the performance of stormwater management activities to reduce pollution loading to receiving waters. The demonstration of water quality improvements requires a thorough understanding of the existing water quality throughout the MS4.

FY 2009 Activities: The District continued monitoring the performance of stormwater management activities to reduce pollution loading to the Anacostia and Potomac River watersheds. Significant progress has been made in this area including:

- Use of the Master Address Repository (MAR) geocoder to determine if a project is located within the MS4 or CSO areas of the District,
- Verification of the MS4 database system,
- Estimating pollutant loading using the Simple Method equation for constituent seasonal and annual loads,
- Enhancing regulatory and promotional programs with respect to the use of BMPs, and
- Developing a financial tracking system to better define stormwater related expenses.

FY 2010 Goals: The District will continue to refine measurement tools to provide the necessary performance metrics for establishing a method to measure performance of MS4 activities. The District will continue to develop the Stormwater Pollution Tracking Database that will contain all existing and potential new databases pertaining to District agencies' activities that will ultimately reduce storm water pollution.

Strengthening Erosion Control Programs for New Construction

Performance Standard: The District maintains a plan review erosion control program for new construction coupled with a field inspection program to ensure compliance with the District erosion control regulations.

FY 2009 Activities: During FY 2009, DDOE continued to review plans, inspect construction sites, and implement the inspection and enforcement program as part of the sediment and erosion control program for compliance with erosion and sediment control and SWM regulations. DDOE WPD promoted its *District of Columbia Standards and Specifications for Soil Erosion and Sediment Control* and *Storm Water Management Guidebook, 2003*. DDOE continues to coordinate a future contract with the Center for Watershed Protection to update and revise the *Storm Water Management Guidebook 2003* after the Draft Regulations are finalized. DDOE hired two full-time inspectors to increase new construction review and field inspection to ensure compliance with the District's erosion control regulations. DDOE will also complete a revision to the *Storm Water Management Guidebook 2003* to reflect a pending revision of the District's stormwater management regulations. The revised SWM regulations will require construction site managers to have erosion control training.

This program is discussed under Section III.F.3 Management Plan for Construction Sites.

Federal Facilities Program

Performance Standard: The District maintains consent agreements between District and federal agencies to comply with the District sediment and erosion control requirements.

DC laws specify that all builders, including federal contractors, must follow the sediment and erosion controls, including sediment and erosion controls on new and re-build construction sites. The Water Pollution Control Act of 1984, as amended, D.C. official Code § 8-103.01 *et.seq*., and the Soil Erosion and Sedimentation Control Act of 1977, as amended, codified in 21 DCMR §§ 500-507 provide the legal authority to enforce the erosion and sediment control provisions of the SWM program.

FY 2009 Activities: GSA and DDOE signed a consent agreement in FY 2000 that requires federal work under contracts through GSA to comply with the same sediment and erosion control requirements as commercial, residential, and industrial operations in the District. This consent agreement assists the District in ensuring that federal facilities comply with the Soil Erosion and Sediment Control Act. DDOE and GSA continue to work under this agreement.

The District continued to implement existing agreements with District and federal agencies. In FY 2009, DDOE reviewed 8 stormwater BMP plans for proposed projects on federal facilities. These projects included a variety of BMP types. These proposed projects are located in the Northwest, Northeast, Southwest and Southeast quadrants of the District, and each of the projects were located in the MS4 area. Table 14 presents the types of BMPs proposed for federal properties and the District quadrant they are located in.

FY 2010 Goals: The District will maintain consent agreements with federal agencies for compliance with erosion control regulations including the review of stormwater BMP plans.

Table 14. BMP Types on Federal Properties, FY 2009

BMP Type	Federal Facility	D.C. Quadrant Location
Baysaver	Walter Reed Army Medical Center	NW
Sandfilter	McMillen Reservoir	NW
Baysaver	Fort McNair	SW
Bioretention, Permeable Pavers and Water Quality Inlet	Anacostia Park	NE
Bioretention, Green Roof, and Filterra Tree Box	St. Elizabeth's Hospital	SE
Underground Sandfilter and Baysaver	Bolling Air Force Base	SE

District Facilities Program

Information specific to DDOT is provided in Section III.F.3.

Continuance of Current Programs

Information about agency-specific cooperative programs is provided in Section III.F.12.

III.F.2 Industrial Facilities

Part III.B.2 of the Permit requires the District to implement a program to monitor and control pollutants in stormwater discharged to the District's MS4 from industrial facilities, and to continue to maintain and update the industrial facilities database.

The management plan of stormwater pollution control from industrial facilities emphasizes the tracking of facilities through a database system, the monitoring and inspection of industrial facilities, and the District's spill prevention and response program. Compliance activities are provided in the following eight areas:

- Industrial facilities database,
- Solid waste transfer stations,
- Hazardous waste treatment, disposal and/or recovery plants,
- Industrial facilities subject to Superfund Amendments and Reauthorization Act (SARA) Title III or the Emergency Planning and Community Right-to-Know Act (EPCRA),
- Industrial facilities with a discharge to the MS4,
- Wet-weather screening program,
- Spill prevention, containment and response program, and
- Review and approval process.

Industrial Facilities Database

Performance Standard: The District maintains a database of few prioritized industrial facilities with stormwater NPDES permits for the purpose of establishing baseline facility information and supporting MS4 related monitoring efforts. The database includes a listing of facilities in the District (whether on private, federal or District properties) that are registered with federal and state regulators and generate, store, or have released hazardous materials. Information for this database is collected from Business and Professional Licensing Administration, DCRA and is being verified from field inspection and GIS analysis. Site verification is conducted periodically by DDOE WQD staff by updating basic information such as location, facility name, description of services, contact person and phone numbers, etc. Field verified information undergoes further GIS

analysis to determine the sewersheds and particular outfalls related to facilities comprising the database. The database framework also allows for relating compliance inspection information for each facility. Currently there are over 500 individual facilities in the database. These facilities provide different services such as automotive repair, dry cleaning, laundry shop, gas/oil stations, etc. The database can be searched based on services, outfalls, sub-watersheds, wards, and zip codes.

FY 2009 Activities: In FY 2009, WQD DDOE maintained its database of over 500 facilities in the District, 12 of which have individual or site-specific stormwater federal NPDES permits. Seven of the permitted sites are located in the MS4 service area (not counting the District permit for the MS4 itself). The list of facilities is provided in Appendix D.

DDOE also targeted automotive, laundry and dry cleaning facilities for facility inspections in FY 2009. More detail on these targeted facility inspections can be found in Section III.F.10.

FY 2010 Goals: To continue tracking facilities and expanding the industrial facilities database to include a range of industrial facilities in MS4 area.

Solid Waste Transfer Stations

The District's government does not operate any solid waste disposal sites within the District. Instead, municipal solid waste collected by DPW is deposited at two municipal waste transfer stations and then transferred out of the District for disposal at licensed facilities. Private companies also operate two transfer stations in the District. These four facilities are located in the MS4 area. The locations of these facilities are provided in Table 15.

Pollution from stormwater runoff at the municipal transfer facilities is being managed under the Solid Waste Facility Permit Act. DCRA, DDOE, and DPW enforce these regulations as part of their responsibility to manage pollution from stormwater runoff at municipal waste facilities within the District.

Table 15. Locations of Municipal and Private Solid Waste Transfer Stations within the MS4.

Municipal Solid Waste Transfer Facilities		
4900 Bates Road, NE.		
3200 Benning Road, NE		
Private Solid Waste Transfer Facilities		
Name	**Operator**	**Location**
Brentwood	Consolidated Waste Industries, Inc.	1220 W Street, NE
Queens Chapel	Waste Management	2160 Queens Chapel Road, NE

Hazardous Waste Treatment, Disposal, and/or Recovery Plants

Performance Standard: The industrial facilities database includes a listing of facilities in the District that generate, store, or have released hazardous materials. Information for this database is collected from site verification and GIS analysis.

FY 2009 Activities: Presently, the U.S. Navy's Naval Research Laboratory in Southwest DC is the District's only active regulated RCRA Treatment Storage and Disposal Facility. There are 26 RCRA LQGs, 69 RCRA SQGs and 470 CESQG's within D.C. RCRA regulations outline handling, storage, and spill control requirements at those facilities.

Facility addresses were used to determine whether the facilities are part of the MS4 area.

- The one Treatment Storage and Disposal Facility in the District that appeared in EPA's RCRA Info database is not located in the MS4 service area.
- There were 54 SQGs and 399 CESQGs in the RCRA Info database. Based on facility addresses provided, approximately 50% of the facilities are in the MS4 service area.
- In FY 2009, no spills were reported to DDOE from these sites.

Inspection and monitoring of hazardous waste facilities is the responsibility of DDOE's Hazardous Waste Division (HWD), which has procedures in place to investigate sites and spills. These procedures include notification and coordination with DDOE of any incidents that impact the city's water resources. According to recent data from EPA's Comprehensive Environmental Response, Compensation, and Liability Information

System (CERCLIS), there are 32 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) facilities in the District (Appendix D).

Based on facility addresses, there are 18 facilities or more within the MS4 area. Due to the temporary nature of some CERCLA facilities, several facilities cannot be mapped or field verified. CERCLA status is not permanent as the sites are cleaned-up they are moved of the active list.

FY 2010 Goals: The District will continue tracking and verifying database information on RCRA sites within the District.

Industrial Facilities Subject to Superfund Amendments and Reauthorization Act Title III or the Emergency Planning and Community Right-to-Know Act

In accordance with the Permit, the District tracks industrial facilities within the District that are subject to regulation under CERCLA. Six years after CERCLA was enacted, SARA amended it. SARA Title III, also known as EPCRA, requires facilities to report on the storage, use or release of certain chemicals and provides for information about potentially dangerous chemicals being made available to the public. One of the means EPA uses to make information available is through the CERCLIS database.

- There are currently 32 CERCLA sites registered with federal and state regulators within the District. The list includes private and federally owned sites. The list of sites is given in Appendix D.

- Of the 32 sites, only the Washington Navy Yard is on the final National Priorities List.

Industrial Facilities with a Discharge to the MS4

DDOE staff maintained a list of industrial facilities in the District and verified NPDES permit holders.

- Six out of the 16 industrial facilities with individual or site-specific NPDES permits are located in the MS4 service area.

- Nine facilities are in the CSO area.

- The remaining permitted facility is in Virginia.

Wet Weather Screening Program

The Wet Weather Screening Program as defined in Section IV.C of the Permit is being implemented as part of the Wet Weather Outfall Monitoring Program and in conjunction with the illicit discharge detection program.

Performance Standard: This program is required to determine the source(s) of pollutants that contaminate stormwater runoff.

FY 2009 Activities: The District continued to evaluate, upgrade, and implement the wet weather screening program. Screening procedures were developed and included in the Quality Assurance Project Plan (QAPP) which is presented in detail in the Discharge Monitoring Reports.

FY 2010 Goals: The District will continue the wet weather screening program including the QAPP and present detailed results in future Discharge Monitoring Reports.

Spill Prevention, Containment and Response Program

FY 2009 Activities: The District continues to implement the *Water Pollution Control Contingency Plan* (WPCCP), which outlines procedures for notifying the incident commander and the trustees of the natural resources in the event of a spill and procedures for oil and hazardous substances emergency response. DDOE continues to perform compliance and enforcement activities in accordance with EPA regulations under the CWA and District regulations under the District of Columbia Water Pollution Control Act that address illegal discharge of potentially hazardous materials. In FY 2009, the District continued to operate under the WPCCP established in 1999. DPW,DDOT and WASA coordinate spill prevention, containment, and response activities with DDOE.

FY 2010 Goals: The District will continue to perform compliance and enforcement activities in accordance with EPA regulations.

III.F.3 Construction Site Activities

Part III.B.3 of the Permit is titled “Management Plan for Construction Sites” and details the permit requirements for control of stormwater pollutants from construction sites in the District.

The management plan for stormwater pollution control on construction sites emphasizes the review and approval process, and the inspection and enforcement procedures of the construction permitting program, as well as construction site and plan educational programs,

traffic pollution control strategies, and air pollution compliance activities. A summary of these compliance activities includes:

- The review and approval process
- Inspection and enforcement procedures
- Site inspections and loading estimates
- Educational measures

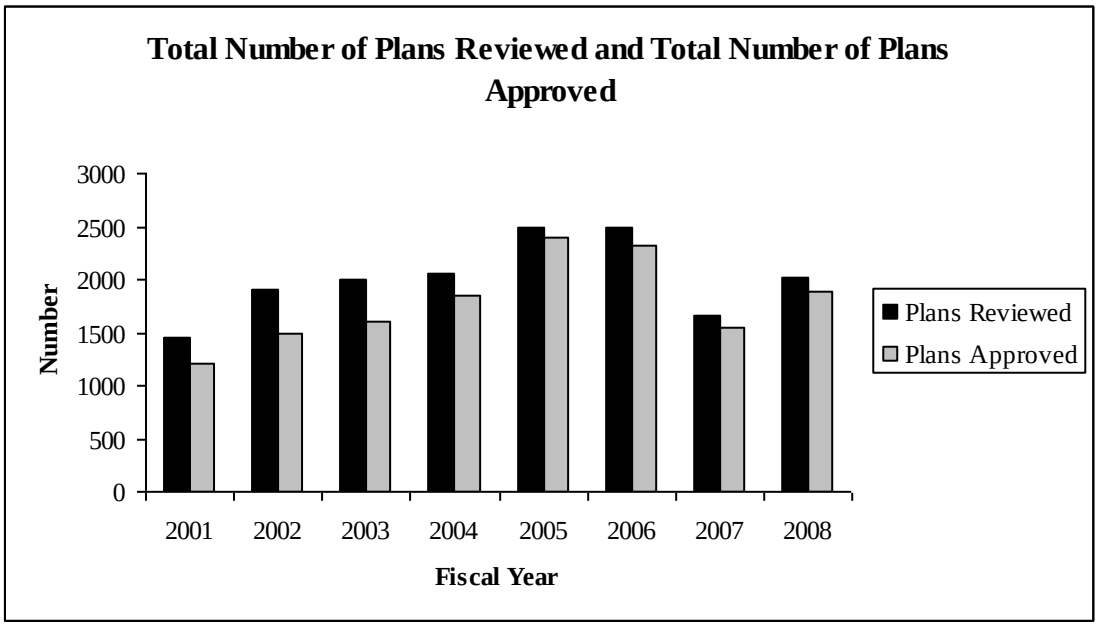
Review and Approval Process

Performance Standard: The District reviews and approves construction plans through its "One-Stop Permitting Center". Plan review and site inspections are coordinated with DDOE enforcement staff and DCRA to ensure that deficiencies in the permit process are corrected when they are encountered. DDOE Technical Services Branch has staff stationed at the "One-Stop Permit Center" at DCRA to provide assistance to customers and to ensure that permit applications, construction plans, and environmental forms and documents meet regulatory requirements. Each year DDOE staff are given refresher training to improve efficiency and effectiveness in plan review.

FY 2009 Activities: District agencies continue to provide a "One-Stop Permitting and Business Center" for the approval of plans and to provide quality control of reviewed plans. Minor projects are reviewed at the permit center and are either approved or rejected. Plans for major or more complex projects are reviewed and approved at the DDOE main office. During 2009, DDOE reviewed approximately 1,687 construction plans for compliance with sediment and stormwater pollution control. This review process led to the approval of 1,550 of these plans. DDOE processed 71 requests for information on soil characteristics and reviewed approximately 71 geotechnical reports to assess soil suitability for various construction projects.

Figure 4 shows the eight-year trend of projects reviewed and approved through the "One Stop Permitting and Business Center". The approved projects indicate the number of projects that have been reviewed under the most recent stormwater regulations, which require both stormwater volume and water quality control. The number of plans reviewed and approved is dependent on development and re-development trends in the District.

Figure 4. Eight-Year Trend in Projects Reviewed and Approved.



FY 2010 Goals: The District will continue to review and approve SWM plans and to provide staff refresher training to continually improve efficiency for review and provision of technical assistance.

Inspection and enforcement procedures

This program is discussed under Section III.F.11 Enforcement Plan.

Site inspections and loading estimates

This program is discussed under Section III.F.11 Enforcement Plan.

Educational measures

This program is discussed under Section III.F.12 Public Education.

Roadways

Performance Standard: The District operates and maintains the local roadways to reduce the discharge pollutants resulting from vehicular traffic from its SWM systems.

Other activities conducted by MS4 Task Force agencies included actions to reduce the amount of pollutants resulting from traffic on public roads that enter SWM systems throughout the District.

FY 2009 Activities: DDOT has a staff of four engineers and one landscape architect to focus on stormwater issues including water quality. The DDOT Stormwater Management Team reviews drawings to resolve drainage issues, ensure proper compliance with erosion and sediment control requirements, ensure use of water quality catch basins in new roadway reconstruction projects, and identify opportunities for installing BMPs and LID. Starting in 2008, the majority of DDOT roadway reconstruction projects install Water Quality Catch Basins to manage stormwater runoff. This catch basin design traps floatables and sediments in specified basins so that they can be removed by maintenance crews.

Additionally, to reduce the impact of traffic related pollution, DDOT is working diligently to improve the Districts network of trails. During FY 2009, DDOT continued to expand its bicycle and pedestrian transportation programs with major trails: Metropolitan Branch Trail, along the east side of the Red Line of the metro system, the Anacostia Riverwalk Trail, which follows the Anacostia River from the Potomac River to the Maryland border and the Watts Branch Bike Trail, which follow the Watts Branch stream through Marvin Gaye Park.

In addition to the trail systems, DDOT continued its efforts in the installation of bicycle-friendly sewer grates and bicycle safety education and enforcement activities.

DPW has elected to purchase alternative fuel vehicles (AFVs) to reduce particulate vehicle emissions that contribute to stormwater runoff. In FY 2009, DPW purchased 139 AFVs that are powered by natural gas or E-85 (85 percent ethanol, 15 percent gasoline). This brings the total number of AFV's in DPW's fleet to 781.

III.F.4 Flood Control Projects

The District Floodplain Management Program of the DDOE Watershed Protection Division reviews plans for development projects located in District floodplains. Evaluations are made on quantity control and potential water quality impacts for proposed flood management projects according to the laws and regulations that govern the District Floodplain Management Program:

1. D.C. Law No. 2-23 (The District of Columbia Soil Erosion and Sedimentation Control Act of 1977)

2. D.C. Law No. 1-64 (The District of Columbia Applications Insurance Implementation Act of 1976); D.C. Code 5-301; Mayor's Order 84-193, dated November 2, 1984

3. D.C. Law No. 8-36 (The District of Columbia Environmental Policy Act of 1989)

4. D.C. Law No. 6-216 (Construction Codes Approval and Amendments Act of 1986)

5. Clean Water Act, 33 U.S.C. 1251 *et. seq.*

6. The District of Columbia Water Pollution Control Act of 1984, D.C. Official Code § 8-103.01 *et. seq.*

7. 21 DCMR § 5 (D.C. Soil Erosion and Sediment Control Stormwater Management Regulations)

Part III.B.4 of the Permit details the permit requirements for documenting and evaluating flood control projects in the District.

The management plan for stormwater pollution control through flood control management emphasizes the following:

- Water quality impact and beneficial use assessment.
- Existing flood control devices retrofit assessment.
- Floodplain mapping.
- Floodplain development procedures and reviews.
- Impervious surfaces evaluation.

DDOE processed approximately 107 requests for flood zone determinations at various properties in the city. Flood zone information is critical in determining the availability of flood insurance and eligibility for federal assistance in the event of natural disasters caused by floods.

Existing Flood Control Devices Retrofit Assessment

The District of Columbia operates and maintains flood control devices including BMPs, pump stations, flood and tide gates, weirs, canals, and stormwater collection and conveyance systems. The District has levees located at Potomac Park, Lincoln Memorial,

Constitution Avenue, Fort McNair, and along Anacostia Park. The levees are inspected annually and maintained by the United States Army Corps of Engineers (USACE). Privately owned and maintained flood and tide gates are located in Washington Harbor at the Georgetown Waterfront Development. The flood and tide gates are used under high water conditions in the Potomac River to control flooding in the harbor area. Two grade control structures constructed at Watts Branch to control peak flows and sediment movement to alleviate repetitive downstream flooding are maintained by the District.

The District Floodplain Management Program of WPD evaluates quantity control and potential impacts on water quality for proposed flood management projects. The quantity control and water quality evaluation is conducted following the laws and regulations that govern the District Floodplain Management Program.

FY 2009 Activities: According to the National Capital Planning Commission's Federal Capital Improvements Program for FY 2007-2012, there is a flood protection project for downtown, Washington, D.C. that consists of retrofitting the existing levees between the Lincoln Memorial and Washington Monument. Design work for this project will be completed and construction will begin in FY 2009, with construction expected to be completed in early FY 2010.

The designs for the Watts Branch stream restoration project have been completed. Permitting for the stream restoration project is currently awaiting issuance of updated 100 year floodplain maps. The stream restoration project for Watts Branch proposes the construction of step-pool structures in front of the existing downstream grade control structures. During a stream assessment conducted by USFWS, the segment of the tributary located upstream of the grade control structures was found to be stable, with little channel and bank erosion and a well-developed riparian buffer. No restoration of that segment is necessary at present.

Floodplain Mapping

Performance Standard: The District coordinates with FEMA in identifying District areas prone to flooding.

FY 2009 Activities: Flood hazard mitigation and floodwater pollutant removal requires identification of at-risk areas through floodplain mapping. Through the nation's flood insurance policy, FEMA has developed floodplain maps for all areas of the United States. The FEMA Q3 FIRMs for the District are currently being revised by FEMA using the

latest technologies and most current data, and incorporating updated studies based on Light Detection and Ranging topography and new hydraulics.

On March 26, 2008, FEMA issued a letter of final determination (LFD) for the District's proposed digital flood insurance rate maps (DFIRMS) and flood insurance study (FIS). However, due to major objections from the District community regarding the revised maps, FEMA rescinded the LFD on June 16, 2008. The purpose of the rescission was to give the District the opportunity to complete design and construction work to improve the 17th Street levee as part of a larger partnership with federal agencies to provide flood protection for the monumental core. The District met with FEMA throughout FY 08 to define the issues and develop a schedule of tasks and commitments that the District must meet for FEMA to issue a new LFD. We anticipate the LFD to be issued in summer of 2010. It is anticipated that the improvements to the levee will be completed by 2011. Upon completion, if the US Army Corps of Engineers determines that the As-Built levee has met the appropriate standard, FEMA will re-determine the extent of the new 1% chance flood boundary.

FY 2010 Goal: The District will continue coordination with FEMA and other partners and stakeholders regarding the District's floodplain management program.

Floodplain Development Procedures and Reviews

Performance Standard: The District reviews and assesses the impact of flood control projects.

The MS4 Permit requirements for floodplain development procedures and review are met through the promulgation of Title 20 (Chapter 31- Flood Hazard Rules) of the DCMR. These regulations describe in detail how projects proposed in floodplains will be reviewed to ensure proper consideration of pollutant reduction in flood-prone areas. Together, these rules regulate, restrict, or prohibit certain uses, activities, and development, which alone or in combination with current or future uses will cause unacceptable increases in flood heights, velocities, and frequencies.

FY 2009 Activities: The District reviewed development within the District floodplain as provided in 20 DCMR Chapter 3100 and the DOH *Nonpoint Source Management Plan II* (provided as attachments to the 2007 Annual Report). Of the proposed projects reviewed for MS-4 areas, two were located in a floodplain or a flood-prone area.

FY 2010 Goal: The District will continue review of development projects in the

Development and Activity Database maintained by the Office of Planning.

Impervious Surfaces Evaluation

Performance Standard: The District reviews and assesses the impervious area on lots undergoing construction or re-construction.

The permit requires the collection of data on the percentage of impervious area located in floodplain boundaries for all existing and proposed development. Since the effective date of the Permit, this has been done for proposed developments through the construction plan information submitted with construction permit applications under 20 DCMR and the Water Pollution Control Act of 1984, D.C. Official Code § 8-103.01 *et. seq*. DDOE has initiated a program to collect data to evaluate impervious surfaces for both proposed and existing development in floodplains.

FY 2009 Activities: DDOE, in collaboration with OCTO, performed an analysis to determine the percentage of impervious surface on the District floodplains using FEMA Q3 flood data for three floodplain types: 100-year with velocity hazard (Zone A), 100-year floodplain (Zone AE), and 500-year floodplain (Zone X500). Features analyzed included buildings, sidewalks, and roads. The resulting percentage of total impervious surface area that is within the floodplains was calculated using GIS and is summarized in Table 16.

In addition, DC WASA continued work to develop a new billing database linked to impervious cover measurements for District properties. This database will provide the backbone necessary to shift the District's stormwater fee from the current structure to one based on impervious cover.

Table 16. Impervious Surface Analysis of Floodplains.

	Total Impervious Area (sq.ft.)	Total Area, Excluding Water (sq. ft.)	Percentage Impervious Area
Zone A	581,948 (0.02 sq. mi.)	3,529,384 (0.12 sq. mi.)	16.49%
Zone AE	17,151,553 (0.6 sq. mi.)	843,602,241 (3.03 sq. mi.)	20.27%
Zone X500	20,667,372. (0.7 sq. mi.)	49,849,324 (1.79 sq. mi.)	41.46%
Complete City (sq. mi.)	**26.43**	**61.31**	**43.10%**

FY 2010 Goal: The District will continue review of development projects in the

Development and Activity Database maintained by the Office of Planning to allow continued updating of the amount of proposed impervious surface added to the floodplains (through projected development) to ensure consideration of pollutant reduction in the floodplains. The District will also complete development of the database necessary for an impervious stormwater fee, and implement impervious billing during this Fiscal Year.

III.F.5 Monitor and Control of Pollutants from Municipal Landfills or Other Municipal Waste Facilities

Part III.B.5 of the Permit pertains to the Control of Pollution from Municipal Landfills and Other Municipal Waste Facilities. The management plan for stormwater pollution control with respect to municipal landfills and municipal waste facilities emphasizes:

- Municipal waste reduction, and
- The prioritization of municipal waste reduction controls.

Performance Standard: The District maintains its municipal solid waste transfer stations in order to minimize the stations' stormwater impacts and to keep up with increasing waste and recyclable loads in the District.

FY 2009 Activities: DPW worked to control pollutants in runoff from municipal waste facilities, including waste transfer stations and equipment storage and maintenance facilities, by continuing the evaluation of additional LID elements to be incorporated at the Fort Totten and Benning Road transfer stations.

Municipal Waste Reduction Program

The Municipal Waste Reduction Program was developed to identify measures to evaluate, inspect, enforce, monitor, and reduce pollutants in stormwater discharges from facilities that handle municipal waste including sewage sludge. Regulatory programs directly supporting the District's nonpoint source stormwater protection and waste reduction efforts include DDOE's *Nonpoint Source Management Plan II*, which cites the Solid Waste Management and Multi-Material Recycling Act of 1988. This Act requires the recycling of certain wastes, thereby materially reducing the activities at waste handling facilities, further reducing stormwater pollution. The District provides recycling service to residential and multi-family residences of three or fewer dwelling units and requires commercial businesses and government offices to have a private recycling

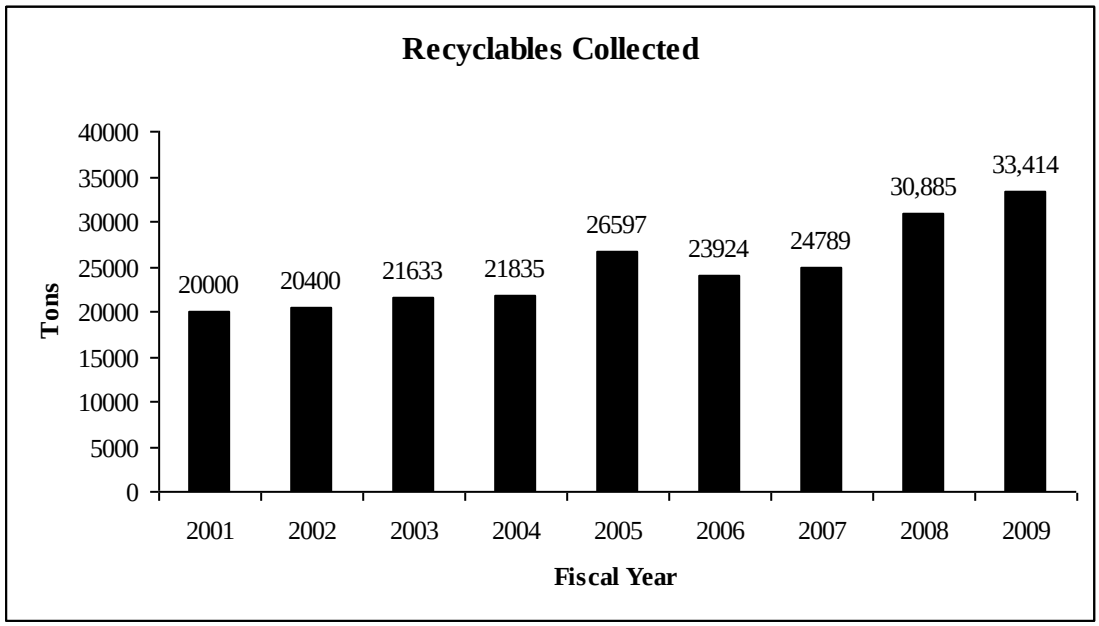
contractor. In FY 2009, DPW collected an estimated 106,158 tons of solid waste (trash, bulk, leaves not composted), plus 33,414 tons of recyclables (curbside, e-waste, shredded paper, leaves composted) from the residential population.

Figure 5 shows the nine-year trend of increasing recyclable collection tonnage collected by the District.

The District does not operate any solid waste disposal sites within the District. Instead, municipal solid waste collected by DPW is deposited at either the I-95 Energy Resource Recovery Facility or private landfills in Virginia.

Improvements at the municipal solid waste transfer stations at Fort Totten and Benning Road, including improvements in the paving and drainage systems, were completed in previous Fiscal Years. The land surface within the District waste handling facilities is predominantly paved and/or highly developed. In FY 2009, the District waste handling facilities were swept with mechanical sweepers several times per week.

Figure 5. Nine-year Trend in Recyclables Collected.



The management program for the municipal facilities targets the nonpoint source runoff with particular focus on the control of pollutants that build up on the paved and/or developed portions of the facility site. DPW is developing a program to provide water

quality control at the District municipal waste facilities including waste transfer stations and equipment storage and maintenance facilities.

The District established a solid waste facility permitting process for private solid waste transfer stations, which includes performance standards for operators of transfer stations. This process is under review to incorporate best practices from cities across the country.

Prioritization of Municipal Waste Reduction Controls

The Permit requires the District to develop priorities and procedures for implementing control measures for pollutant reduction at sites within the District's MS4. The initial phase of the program included procedures to evaluate, inspect, and monitor regulated sites. Based on the evaluation of the results of this monitoring, the District's solid waste management now includes waste reduction, recycling, and disposal.

FY 2010 Goals: The District will continue to maintain the municipal solid waste transfer stations to reduce impacts to stormwater.

III.F.6 Monitor and Control of Stormwater Pollutants from Hazardous Waste Sites

Part III.B.6 and Part III.B.10 of the Permit outline the requirements for monitoring and control of pollutants from hazardous waste sites. The management program for stormwater pollution control from hazardous waste sites emphasizes identification and mapping of facilities and monitoring of stormwater discharges.

Performance Standard: The District is active in identifying and monitoring hazardous waste from the industries and businesses within the District.

FY 2009 Activities: The formal procedures DDOE uses to control the impact and extent of hazardous waste on the MS4 are discussed in: *Hazardous Waste Division Administration, Hazardous Waste Management Strategic Plan for Enhancement of Environmental Health, and Standard Operating Procedures.* Based on established procedures in this document DDOE developed inspection protocols to govern field investigations, including the investigation of facilities that generate or store hazardous waste. The *Hazardous Waste Division Administration, Hazardous Waste Management Strategic Plan for Enhancement of Environmental Health,* and *Standard Operating Procedures* was provided as an Attachment to the 2007 Annual Report.

Illicit discharge detection is another component of the program to identify facilities that contribute a substantial pollutant loading to the MS4. Identifying and sampling discharges from connections provides information that may identify hazardous waste facilities with illicit connections. In FY 2009, DDOE MS4 staff conducted 52 illicit discharge investigations. None of these investigations occurred at facilities listed in the RCRA/CERCLA database for hazardous materials.

DDOE HWD conducts inspections of RCRA hazardous waste facilities to determine compliance with hazardous waste regulations. HWD conducted inspections at -16 LQG facilities, 24 SQG facilities, and 50 CESQG facilities within the District between October 1, 2008 and September 30, 2009. While HWD inspections do not directly address water quality, inspectors reported spills (that could pose a water quality threat) to DDOE or WASA for further water quality investigation.

FY 2010 Goal: The District will continue to identify and monitor hazardous waste from industries and businesses within the District through the use of inspections and investigations in water quality.

Industrial Facilities Database

This program is discussed under Section III.F.2.

III.F.7 Pesticides, Herbicides, and Fertilizer Application

Part III.B.7, Part III.B.10, and Part III.B.12 of the Permit outline the requirements for pesticide, herbicide, and fertilizer application. The management plan for stormwater pollution control of pesticides, herbicides and fertilizers entails a mixture of programs emphasizing efforts to control pesticide, herbicide, and fertilizer applications. A summary of these activities is provided and includes control programs for pesticide, herbicide and fertilizer application on District and private property as well as public educational programs specifically targeting these environmental pollutants. Details of the public education program on pesticides, herbicides and fertilizer application are provided in Section III.F.12.

FY 2009 Activities: The District worked to control pesticide, herbicide, and fertilizer runoff, and the use of other toxic substances as detailed in the SWM Plan and existing regulations. As part of the Intergrated Pest and Nutrient Management Program (IPNM), the District continued to provide information about educational programs to private property owners through pamphlet distribution to residents.

Pesticide, Herbicide, and Fertilizer Application Activities

Performance Standard: The District's Pesticide Program is active in educating and training the public on the correct handling and application of pesticides and herbicides.

As of FY 2009, the District has 1,300 pesticide applicators certified in various categories.

FY 2010 Goals: The District will continue to educate the public on the appropriate use of pesticides, herbicides, and fertilizers to reduce these substances in the MS4; to train District applicators in the safe use and handling of pesticides, herbicides and fertilizer; and to coordinate with the EPA on Federal Worker Protection Standards (WPS). In addition, DDOE will continue to work with OPM to replace the use of pesticides with environmentally friendly alternatives.

Pesticide and Nutrient Control on District Property

The Pesticide Program goal is to train and certify pesticide applicators in the safe use and handling of pesticides and to promote the incorporation of IPNM principles with a reduction in pesticide use as a goal. The Pesticide Control Program is implemented by DDOE. The agency routinely inspects stores that have the potential to sell pesticides to monitor the products that are for sale and to determine their registration status. This program also continues to regulate pesticide use in the District by certifying and licensing applicators and conducting compliance inspections both routine and "for cause".

DRES completed the LEED Certification Guidebook, an innovative handbook for government project managers on how to manage and direct compliance with the District's requirements of the Green Building Act of 2006. The Guidebook contains specific direction on how to meet LEED (Leadership in Energy and Environmental Design) requirements and manage the design and construction process to achieve the highest possible LEED certification.

Additionally, DRES developed a companion Policy Handbook to serve as a policy compliance checklist reference guidebook to promote practices to achieve cleaner and healthier environments by requiring the use of maintenance methods and products that conserve resources, minimize toxic pollution, and maximize indoor air quality. Among them, Integrated Pest and Nutrient Management (IPNM), a safer strategy to effectively reduce the potential health and environmental risks associated with pesticide and

fertilizer use, and Stormwater Management practice to limit the disruption and pollution of natural water flows by managing stormwater runoff.

Landscaping contracts are limited to grass cutting activities, mulching, fertilizer in accordance with IPNM practices, and debris removal (with a small number of building requiring some seasonal annuals or perennials plantings). The Contractors are required to fertilizer in accordance with IPNM practices giving preference to employing physical, mechanical, and biological tactics to prevent conditions that promote pest infestations and excess nutrient use. Application of fertilizers and pesticides is kept to a minimum. A summary of the DRES IPNM Policy is included as Appendix E.

In the case of green roofs, specially blended organic fertilizers and nutrients, are applied about once per year.

Pesticide Control Program on Private Property

DDOE provides educational outreach to private property owners to better inform them about the proper use and disposal of pesticides, herbicides, and fertilizers, and safer alternative methods. The program distributes pamphlets to residents that provide information on environmentally sound practices with regard to the use of pesticides in the yard or garden, the introduction of "good" pests into the garden, lawn care services, the District Nutrient Management Program, and IPNM.

Source Characterization Screening

Performance Standard: The District waters are tested regularly for the presence of pesticides, herbicides and fertilizers.

FY 2009 Activities: Pesticides are monitored as part of the overall wet- and dry-weather outfall monitoring program. In previous years, pesticides have been detected in some of the samples collected from the outfalls. Pesticides were detected in only one sample in the Potomac River watershed.

FY 2010 Goal: The District will continue to monitor sites within the MS4 for the presence and levels of pesticides, herbicides, and fertilizer chemicals.

III.F.8 Deicing Activities

Section III.B.8 of the Permit, "Deicing Activities", details the permit requirements to minimize the impact of deicing materials on water quality.

The management plan for stormwater pollution control in deicing activities emphasizes:

- Evaluation of deicer materials,
- Application of deicer materials, and
- Deicer materials storage facilities.

Evaluation of Deicer Materials

Performance Standard: The District actively seeks to use the most effective and environmentally safe products available while keeping the streets and highways of the District ice free.

The District continued to use a brine solution on bridge surfaces and other critical roadway infrastructure to reduce pollutant loading to receiving waters from deicing activities.

Application of Deicer Materials

Performance Standard: The District is active in keeping the streets and highways of the District ice free. DDOT will use a brine pretreatment solution on bridge surfaces to reduce pollutant loading to receiving waters. Application rates and techniques will be evaluated as per the comparison study, and modifications will be made to the deicing program as necessary.

FY 2009 Activities: DDOT's primary obligation in snow management and deicing activities is to provide for the safe movement of emergency vehicles and other vehicular traffic as quickly as possible following winter storms. DDOT employs a variety of techniques, including plowing, salt application and deicing chemical application on various roads, depending on the amount and type of precipitation expected. In the FY2009 season, DDOT mobilized 17 times for deicing and snow control.

DDOT uses a brine pretreatment solution and Geomelt on bridge surfaces, overpasses, and know hilly and areas with typical ice buildup to reduce sodium chloride use and pollutant loadings to receiving waters. DDOT has also started pre treating specific Light Plow Routes and residential streets that are hilly and difficult to plow. DDOT operates nine chemical trucks and four light plow trucks that each contain a 500 gallon liquid spray tank for chemical application. The brine solution is 23 percent sodium and 77 percent water. The use of the brine pre-treatment reduces in the amount of salt used

during winter months for control of snow and ice. Geo-melt helps hold the brine longer to the pavement.

FY 2010 Goals: The District will continue to use brine and Geomelt for pretreatment of critical roadway infrastructure, providing a reduction in the amount of salt used during the winter months. DDOT will increase the liquid spray pre-treatment in difficult and hilly Light Plow areas. In addition, DDOT will consider expanding this program through the purchase of additional spray trucks.

Deicer Materials Storage Facilities

Performance Standard: The District utilizes stormwater management facilities at its salt storage sites to control runoff and water quality from the sites.

The District operates four salt storage facilities. At all of the facilities, the run-off is controlled by a stormwater management facility to reduce the amount of pollutants. Three of the four facilities are located within the MS4 area. The fourth location, 1241 W Street, NE, is within the CSO area. The locations of the three facilities inside the MS4 area are (1) Potomac Avenue and R Street, SW; (2) Fort Drive, NW, east of Fort Reno Reservoir, and (3) 401 Farragut Street, NE. All DDOT salt dome storage facilities are constructed with stormwater BMP structures for load discharge reductions. All DDOT salt dome storage facilities are constructed with stormwater BMP structures for load discharge reductions.

In FY2009, the Stormwater Pollution Prevention Plan for the 1241 W St NE site was completed.

FY 2010 Goal: DDOT will continue inspection and maintenance of the salt storage facility per the SWM maintenance plan.

III.F.9 Snow Removal

Permit Part III.B.9 requires the Permittee to establish a program and operating plan to ensure excessive quantities of snow and ice control materials do not enter the District's water bodies. The management plan for stormwater pollution control through snow removal emphasizes the snow and deicer control program.

Snow Control Program

Performance Standard: The District implements its snow removal and deicing program operating plan to ensure safe passage on its roadways using deicing materials that provide the minimum impact practicable to the stormwater runoff from snow and ice that enters the MS4.

FY 2009 Activities: The District snow removal program is discussed on the DDOT web site at the following link:
http://ddot.dc.gov/DC/DDOT/On+Your+Street/Traffic+Management/Snow/District+of+Columbia+Winter+Snow+and+Ice+Plan

DDOT regularly prepares a Performance Measures Report that includes targets and achievements for a number of performance measures, including snow removal. In the FY 2009 snow-season, 11.5 inches of snow fell. DDOT conducted snow plowing, but did not need to remove snow from the roadways.

FY 2010 Goal: To continue to provide efficient snow removal and safe roadways within the District while providing the minimum impact to the stormwater runoff entering the MS4.

Alternative Snow Stockpile Areas

Performance Standard: Currently no plans to develop an alternate snow removal plan exist.

The District's current snow removal and deicing program is designed to avoid snow deposits in areas adjacent to water bodies, wetlands, and areas near public or private water wells except during a declared snow emergency. The plan is routinely reviewed for its applicability, and there is no need to revise the plan at this time.

FY 2010 Goals: No program goals are necessary at this time.

III.F.10 Management Plan to Detect and Remove Illicit Discharges

Part III.B.10 of the Permit pertains to the Management Plan to Detect and Remove Illicit Discharges.

The stormwater pollution control management plan for detection and removal of illicit discharges entails a mixture of program activities that include the following:

- Illicit discharge detection and elimination.

- Floatables reduction.
- Waste collection.
- Inspection plan.
- Enforcement plan.
- Spill response plan.

Illicit Discharge Detection and Elimination

Performance Standard: The District maintains an illicit discharge program designed to detect and eliminate illicit discharges within the District. DDOE with the support of DCWASA and DPW conduct activities related to illicit discharge detection and elimination.

The District continued an ongoing IDDE program as required by MS4 Permit and prevent improper disposal into the storm sewer system as required by federal regulations, and work with District agencies on a multi-program effort to improve environmental compliance of automotive repair shops, dry cleaner and laundry shops.

The DPW Solid Waste Education and Enforcement Program (SWEEP) seeks to maintain clean private and public spaces by investigating illegal dumping complaints, overgrown lots, poor trash containerization and other sanitation violations. Generally, SWEEP staff will try to work with property owners to bring the property into compliance with the District code. If SWEEP staff cannot obtain voluntary compliance from a property owner, the Department may clean the property and charge the property owner twice the cost of the cleanup effort. This cost will be added to the property owner's next property tax bill. The SWEEP program is authorized for a staff of 36 field investigators.

DDOE has implemented an ongoing program to detect illicit discharges and to prevent improper disposal into the storm sewer system as required by federal regulations. DDOE personnel continued to investigate potential illicit discharges in response to reports by citizens or government personnel. Calsl made to the Office of Emergency Management pertaining to environmental discharge complaints are directed to DDOE. DDOE personnel conduct detailed investigations of the complaints. Often DDOE is able to respond immediately by sending personnel into the field. Depending on the characteristics of the discharge described, DDOE might alternatively refer the case to more appropriate District agency (e.g., in the case of water main breaks or other sewer

infrastructure problems DCWASA is contacted to resolve the problem). Depending on the extent and source of the discharge, federal entities such as EPA, U.S. Coast Guard or NPS may be called upon for assistance with sample analysis, investigation, or containment.

In FY 2009, DPW SWEEP responded to 7,664 requests for action for illegal dumping complaints, overgrown lots, poor trash containerization and sanitation violations. The sites investigated were located throughout the entire District.

WQD staff conducted 52 illicit discharge investigations, 17 emergency response, 168 targeted facility inspections and 148 outfall inspections in FY 2009. Investigations were conducted to discover the nature and sources of potential discharges to Rock Creek, the Anacostia River, and the Potomac River.

As a result of the 385 total investigations and inspections, DDOE issued 84 compliance requests, and has worked with all facilities to obtain compliance. The largest numbers of cases were targeted inspections focusing on auto repair, car wash, laundry and dry cleaning facilities in the MS4 area of the city. About two third of the investigations were outfall and facilities inspections and the remaining number were initiated based on complaints or reports from citizens, other District departments, or District contractors engaged in MS4-related field activities, or as emergency responses. As compared to FY 2008, facilities and outfalls inspections in FY 2009 were increased by 600% and 300% respectively. Detailed information on these inspections and investigations are provided in Appendix F.

DDOE also visually inspected MS4 outfalls and the waters to which they discharge in efforts to detect and eliminate illicit discharges in the randomly selected sewersheds.

FY 2010 Goals: The District will continue to maintain clean private and public spaces by investigating illegal dumping complaints, overgrown lots, poor trash containerization and other sanitation violations; continue the program to detect illicit discharges as described in the upgraded SWM Plan and the Permit, and to prevent improper disposal into the storm sewer system as required by federal regulations. DDOE plans to expand inspection of facilities in the MS4 areas that show high frequency of detections and/or high quantities of pollutants at outfalls (as soon as staffing allows). DDOE personnel will continue to investigate potential illicit discharges in response to reports by citizens or government personnel. DDOE will also coordinate with DPW to evaluate the

effectiveness of surveillance camera systems throughout the District as a method for improving illegal dumping enforcement and deterring illegal dumping activity.

Floatables Reduction Program

Performance Standard: The District operates a river pollution control program that seeks to reduce the floating debris found in the District's rivers.

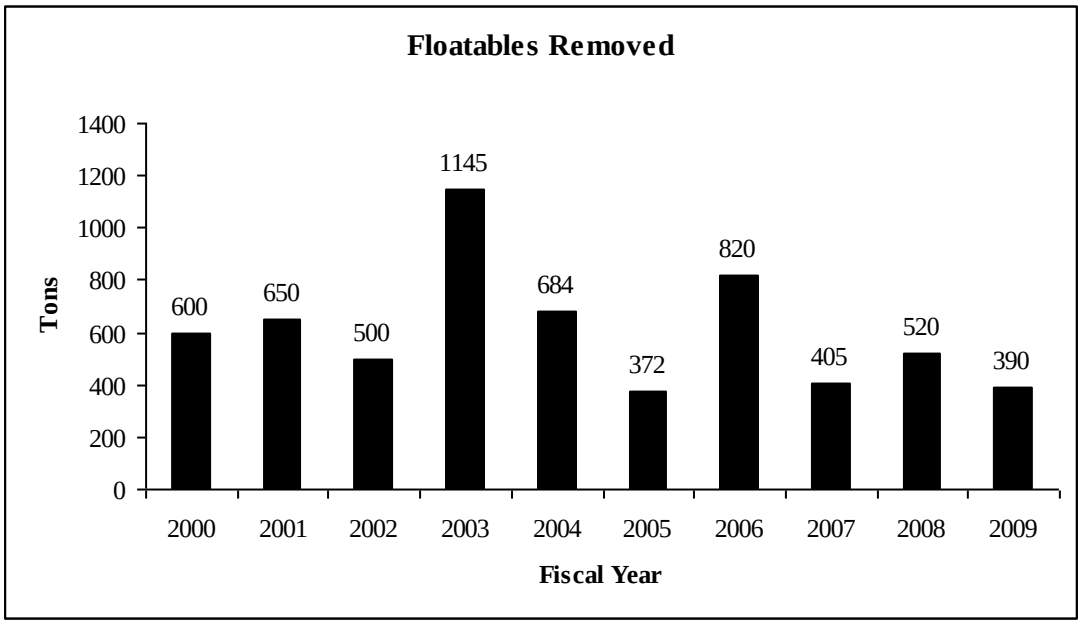
The District continued to conduct the Floatables Reduction Program for the Potomac and Anacostia Rivers.

The Anacostia River Floatables Debris Removal Program was initiated in August 1992 to remove floating debris from the Anacostia and Potomac Rivers on a routine basis. The program is operated by the WASA Department of Sewer Services, Inspection and Maintenance Division. The floating debris removal program utilizes a 12,000-lb capacity skimmer boat, a 6,000-lb capacity skimmer boat, and support boats to remove floatable debris from the rivers as well as trash that accumulates on the river banks and in mud flats at low tide. The boat docking area and roll-off containers are located on the west bank of the Anacostia River in the vicinity of M and 14th Streets, SE.

The boats pick up debris five days per week.

FY 2009 Activities: During FY 2009, the skimmer boats removed 390 tons of debris. Figure 6 shows the ten-year trend of floatables tonnage removed from the District's rivers.

Figure 6. Ten-Year Trend of Floatables Removed



FY 2010 Goal: The District will continue the Anacostia River Floatables Debris Removal Program for the Anacostia and Potomac Rivers.

Waste Collection Program

Performance Standard: The District provides household hazardous waste collection and seasonal leaf collection each fall.

The Permit prohibits the discharge of used motor vehicle fluids, household hazardous wastes (HHW), grass clipping, leaf litter, and animal waste into separate storm sewers. The existing program for the collection of motor vehicle fluids and household hazardous waste has been expanded. Accepted materials include paint, batteries, pesticides, solvents, motor oil, furniture polish, nail polish and remover, and other possibly toxic items.

FY 2009 Activities: During FY 2009, DPW operated weekly HHW dropoff sites at the Benning Road and Ft. Totten Transfer Stations. Each Saturday, residents are able bring their HHW materials and unwanted electronics for proper disposal. In addition, DPW provides shredding services for confidential papers.

The dropoff sites average a total of 200 vehicles each Saturday.

collected the following materials from 2,857 vehicles during FY 2009:

- 169 55-gallon barrels of HHW liquids
- 118 car batteries
- 335 cubic yards of aerosols and flammables
- 1,804 linear feet of fluorescent bulbs

Table 17 shows the seven-year trend of household hazardous waste reduction in the District.

Bagged grass clippings and leaves are collected throughout the year with regular garbage collection. Leaf litter is collected during November, December, and January by DPW utilizing vacuum trucks. A discussion of Leaf and Holiday Tree collection activities is provided in Section III.F.1 of this report.

FY 2010 Goals: The District will strive to increase the number of citizens participating in the household hazardous waste and leaf collection programs through public education and the continuation of weekly HHW collection at one Transfer Station.

Table 17. Seven-Year Trend in Household Hazardous Waste Reductions.

Fiscal Year	Collection Events	Participants (No. of Cars)	Household Hazardous Waste (55 gallon drums)	Electronics (tons)
2002	2	1,500	148	4
2003	5	3,178	261	63
2004	6	4,490	249	117.5
2005	6	6,261	375	142
2006	4	4,678	387	93[a]
2007	2	2,748	274	65
2008	Ongoing	3,283	363	173
2009	Ongoing	5,640	648	

[a] Includes two tons of electronics collected during an e-cycling collection November 15-22, 2005 at the Benning Road PEPCO station.

Inspection Plan

Performance Standard: The District maintains an inspection program for illicit discharges.

FY 2009 Activities: The DDOE devoted significant effort to revamping its illicit discharge inspection and enforcement program during FY 2009. It has developed a complete schedule of inspections for facilities and outfalls in the MS4 area. The facility inspection schedule ensures that all auto repair, laundry, car wash, and dry cleaning facilities in the MS4 area are inspected. Additionally, over 500 facilities of various other categories have been added to the inspection list.

DDOE also continued visual inspection of MS4 outfalls to detect illicit discharges. Each outfall has been mapped in ArcGIS and ranked as high, medium, or low priority in accordance with size, land use, and historical knowledge of the outfall drainage basin. Outfalls are inspected every 6 months, 2 years, or 5 years for high, medium, and low priority outfalls, respectively, in order to complete all outfall inspections within a 5 year period. This protocol targets facility inspection areas that show high frequencies of detection and quantities of pollutants. It describes a stepped process by which inspectors will prioritize the District's water bodies according to the level of impairment, correlate the pollutants to broad categories of potential sources, locate individual business that fall under the identified sources, plan compliance inspections for these facilities, and resolve compliance issues.

FY 2010 Goals: The DDOE will continue detection and elimination of illicit discharges through a targeted enforcement protocol for the Inspection Plan. It will also continue to assess and update the outfall prioritization database as a result of scheduled inspections. In addition to visual observation, DDOE will also collect and analyze water samples if necessary in order to facilitate IDDE investigations.

Enforcement Plan

Performance Standard: The District maintains an enforcement program for illicit discharges.

FY 2009 Activities: The District continued the enforcement plan program to prohibit the discharge or disposal of motor vehicle fluids, household hazardous wastes, grass clippings, leaf litter, and animal waste into separate storm sewers. DDOE revised the Draft Water Quality Division Enforcement and Compliance Manual that describes inspection and enforcement efforts. It has been replaced by "The Environmental Enforcement Process in the District of Columbia". Copies of both documents were provided as Attachments to the 2007 Annual Report and the 2009 SWMP. The manual details the written enforcement strategy outlining how enforcement actions, such as violation notices, notices of infractions, and stop work orders, are issued and adjudicated. The strategies outlined in the manual provide the standard operating procedures for enforcement within the District. The manual establishes the guidelines for compliance inspections conducted by DDOE. A discussion of enforcement activities is provided in Section III.F.11. In addition, in FY 2008 the District and EPA signed a Memorandum of Understanding pertaining to enforcement efforts. The District continues to make steady progress toward the goals of this enforcement MOU.

The District has legislation that prohibits the discharge or disposal of used motor vehicle fluids, household hazardous wastes, grass clippings, leaf litter, and animal waste into separate storm sewers. The Water Pollution Control Act of 1984 (D.C. Official Code 8-103.07 (e)) provides that no person shall discharge a pollutant to the waters of the District. The Water Pollution Control Act defines "pollutant" as any substance which may alter or interfere with the restoration or maintenance of the chemical, physical, radiological, and biological integrity of the waters of the District; or any dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemicals, chemical wastes, hazardous wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, oil, gasoline and related petroleum products, and industrial, municipal, and agricultural wastes. Implementing

regulations at 21 DCMR § 529 control stormwater runoff for oil, grease, organic animal wastes and other discharges that violate the water quality standards of receiving waters in the District.

FY 2010 Goals: The District will continue detection and elimination of illicit discharges through a targeted enforcement protocol of the Enforcement Plan.

Spill Response Plan and Pollution Prevention

Performance Standard: The District has developed and implements the procedures specified in the *Water Pollution Control Contingency Plan* (WPCCP) for spills and chemical releases. The District also provides pollution prevention outreach to managers of facilities and in-house spill training to District agencies.

The Permit discusses implementing procedures to prevent, contain, and respond to spills that may discharge into the MS4, including the training of personnel in spill prevention and response procedures.

The WPCCP provides guidance on timely and effective response to hazardous substance releases that threaten to impact the natural resources of the District. The plan also addresses the pollution and resource assessment, mitigation, cleanup, and follow-up actions resulting from non-permitted discharges. The District continues to operate under the plan developed in 1999. The procedures outlined in the WPCCP are followed for reports of illicit discharges.

Good housekeeping involves using practical, cost-effective methods to identify ways to maintain a clean and orderly facility and keep contaminants out of the separate storm sewer. It includes establishing protocols to reduce the possibility of mishandling chemicals or equipment and training employees in good housekeeping techniques. These protocols must be described in the facility SWM Program and communicated to appropriate facility personnel.

A spill or release episode includes any spillage or leakage of fuel from fuel storage tanks, piping, dispensing equipment, or vehicles. If the spill is less than 25 gallons, then the Fuel Services Supervisor is immediately notified. The Fuel Services Supervisor will then follow established DPW procedures to clean up the spill. If the spill is more than 25 gallons, then notification is given to the District Underground Storage Tank Division, the DC Fire Prevention Division, and the Fleet Services Administration. Response procedures may include tank gauging, vapor monitoring, groundwater monitoring, and

secondary containment. The response procedure will also include sample collection of soil and other material that will be analyzed for known and unknown contaminants. A spill assessment chart will be developed with physical and chemical properties clearly outlined in the response plan. Spill response plans will also include lists of materials containing the following: acid neutralizing agents, oil absorbents, biohazard absorbents, approved absorbents rolls, absorbents containers and fuel tank breathers.

FY 2009 Activities: DDOE continued work to update its current outreach program on spill prevention and pollution prevention for facility managers. DDOE has also increased efforts to provide assistance to District agencies in developing stormwater pollution prevention plans to better address spills and contingencies at their facilities.

FY 2010 Goals: The District will continue to operate under the revised WPCCP in 2009. DDOE will also continue to provide District agencies with assistance in developing or updating their stormwater pollution prevention plans. In FY 2010 DDOE WQD has contracted with Metropolitan Washington Council of Governments to update the existing WPCCP.

Trash Removal

FY 2009 Activities: The District continued efforts to conduct a trash survey and develop a trash reduction plan for the Anacostia River.

Also in FY 2009, DDOE installed an end-of-pipe trash collection device on Watts Branch, a tributary of the Anacostia River. DDOE actively used trash collection methods/equipment which enables us to remove trash from in-stream. These include mechanisms are called ‘Bandalongs’: which are floating trash traps that catch the floatable trash and when full, they are emptied by workers at the Earth Conservation Corps.

Also of note, The “Anacostia River Clean Up and Protection Act of 2009’ was introduced on February 17, 2009 and signed into law on July 6, 2009. This bill bans the use of non-recyclable plastic carryout bags and establishes a special purpose revenue fund dedicated to the cleanup and protection of the Anacostia River.

FY 2010 Goals: In FY 2010, the District will complete the trash survey and trash reduction plan for the Anacostia River. DDOE will also begin a two year pilot study to evaluate the effectiveness of various trash control technologies, including end-of-pipe, in-stream trash traps and upland devices such as catch basin inlet screens and catch basin

inserts. This pilot study will include the retrofit of at least 50 catch basins for trash control. The results of this pilot study will further DDOE's understanding of effective engineering solutions for eliminating trash from District waterways.

Together with the State of Maryland (Montgomery and Prince George's Counties) and EPA Region III, DDOE issued the first (on the east coast) watershed wide Anacostia River Trash TMDL, trash diet. The Trash TMDL provides limits on how much trash can be in the river at one time, and is a regulatory and enforcement tool that binds us to collect, manage, and reduce the amount of trash in the Anacostia River.

III.F.11 Inspection and Enforcement Plan

Inspection and Maintenance Plan

Facility inspections and visual inspections of the sewer system are integral parts of the plan to detect illicit discharges. Inspectors use outfall monitoring data to identify the problem pollutants and where they are appearing in the sewer system. Literature and professional experience can then be used to determine what kinds of sources or activities are associated with the problem pollutants. Concurrently, inspectors can use their knowledge of the sewer system, maps and other resources to begin tracing back to the geographic origin of the pollutants. If a facility is found to be a contributor or potential contributor of the detected pollutants as a result of an inspection, DDOE will attempt to bring it into compliance with stormwater regulations, which might entail education and/or recommendation for fines or other enforcement actions against the facility. New Notice of Inspection forms were developed and printed for enforcement purposes.

The industrial facilities database (discussed in Section III.F.2) and GIS tools (discussed in Section III.F.10) are powerful resources for completing this task. As more facility information (on location and wastes generated) is collected through routine compliance inspections, the District will increase its capacity to quickly identify potential sources of illicit discharges in the geographic area of interest through the data integrated in the GIS. These tools will not only be used in response to illicit discharges that have already occurred, but to direct or focus the routine inspections in a manner that would also facilitate proactive interactions with businesses and prevent illicit discharges.

Industrial Facilities

In FY 2009, DDOE inspected industrial facilities for compliance with stormwater regulations. As a result of the compliance inspections, DDOE issued 84 compliance directives in FY 2009, and worked with all facilities to obtain compliance.

Construction Site Inspections and Loading Estimates

Performance Standard: The District conducts inspections for the installation and maintenance of SWM and erosion control devices at commercial, residential and road construction projects. The District also conducts inspections at construction sites and their SWM BMPs.

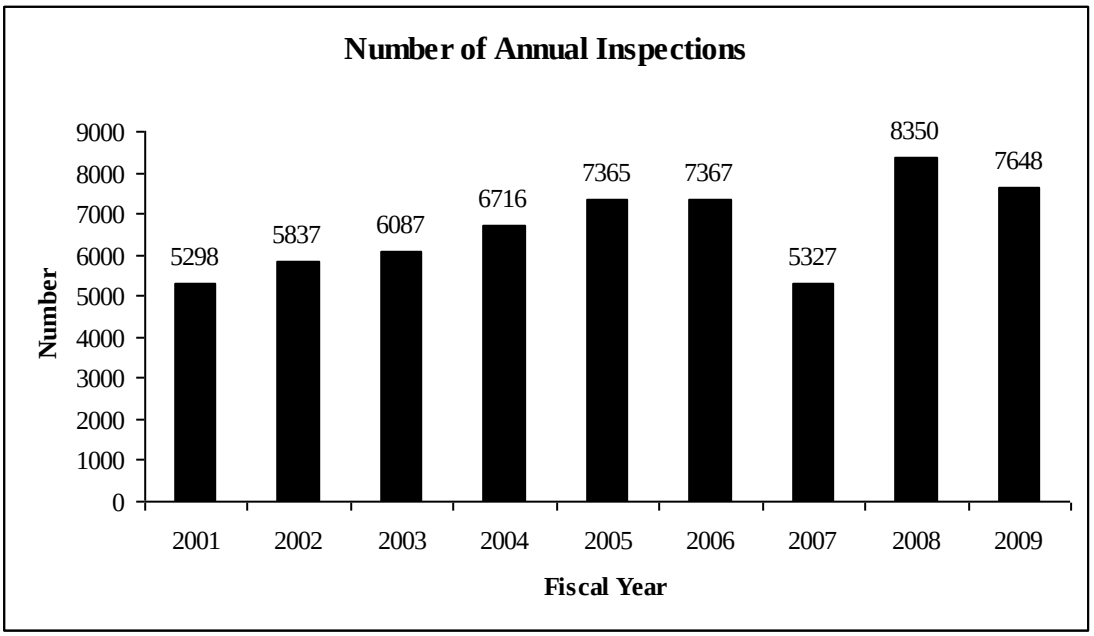
Inspection procedures are outlined in 21 DCMR § 534 *Water Quality and Pollution Regulations* (provided as an Attachment to the 2007 Annual Report) and the Nonpoint Source Management Plan for the District. The legal basis for conducting inspections related to stormwater management is outlined in 21 DCMR § 545. Procedures for conducting an inspection are detailed in the *Standard Operating Procedure for the Enforcement of Soil Erosion and Sedimentation Control and Storm Water Management Regulations* and the *Standard Operating Procedures for Soil Erosion and Sedimentation Control and Storm Water Management Inspection.* Copies of these two documents were provided as attachments to the 2007 Annual Report.

DDOE has refined and updated the District's automated database system for tracking stormwater management facilities inspected for maintenance to include tracking of construction projects with stormwater management BMPs, "Final Inspection" completion and "Final Inspection Notification Letters" to SWM applicants, as well as monitoring receipt of "As-Built Plans" of completed stormwater projects.

The updated database system contains data for BMPs constructed since the inception of the program in the District of Columbia 1988 and has enabled faster and more efficient rescheduling of inspections and retrieval of maintenance records.

FY 2009 Activities: DDOE conducts site inspections and calculates loading estimates from construction sites within the District. In FY 2009, DDOE conducted 7,648 inspections at construction sites and issued 105 enforcement actions. Figure 7 shows the nine-year trend of the construction inspection program. Figure 8 shows the nine-year trend of annual enforcement actions.

Figure 7. Nine-Year Trend in the Number of Annual Construction Site Inspections



In FY 2009, 51 citizen complaints relating to soil erosion and drainage problems were investigated and resolved by DDOE.

DDOE also inspected stormwater management facilities within the District in FY 2009. A total of 267 SWM facilities were inspected and 417 post-maintenance inspections occurred to ensure proper maintenance of the facilities. Figure 9 shows the trend in the number of SWM facilities inspected each year.

Loading estimates are prepared as part of the plan review process as detailed in the *Stormwater Management Guidebook, 2003.* A copy of the current guidebook was provided as an attachment to the 2007 Annual Report. Plan review, site inspection and loading estimates are required for commercial, residential, and road development land uses.

Figure 8. Nine-Year Trend in Annual Enforcement Actions

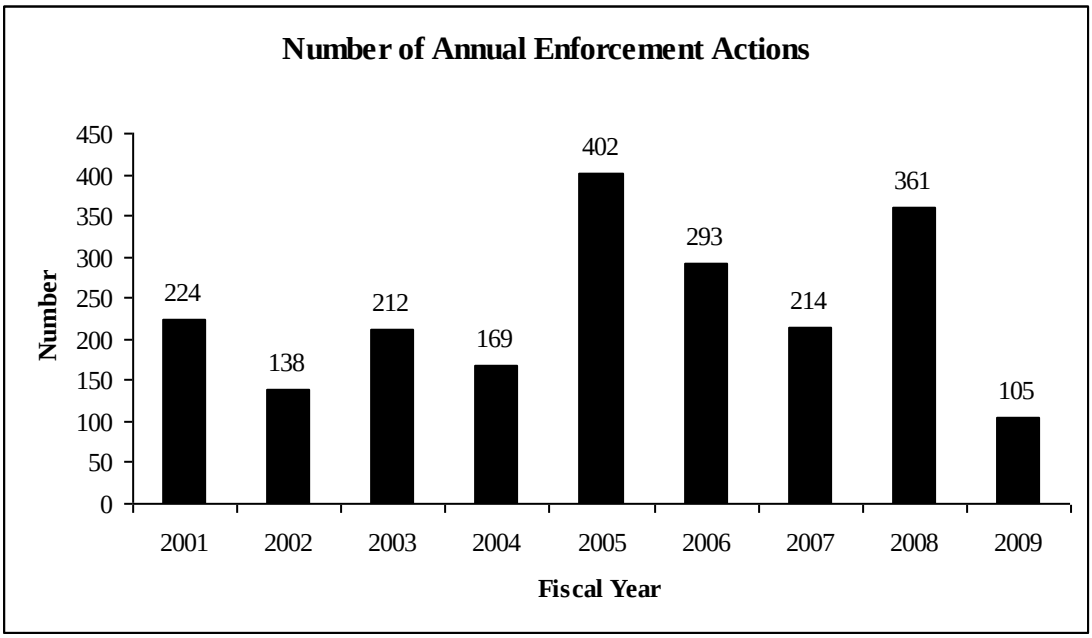
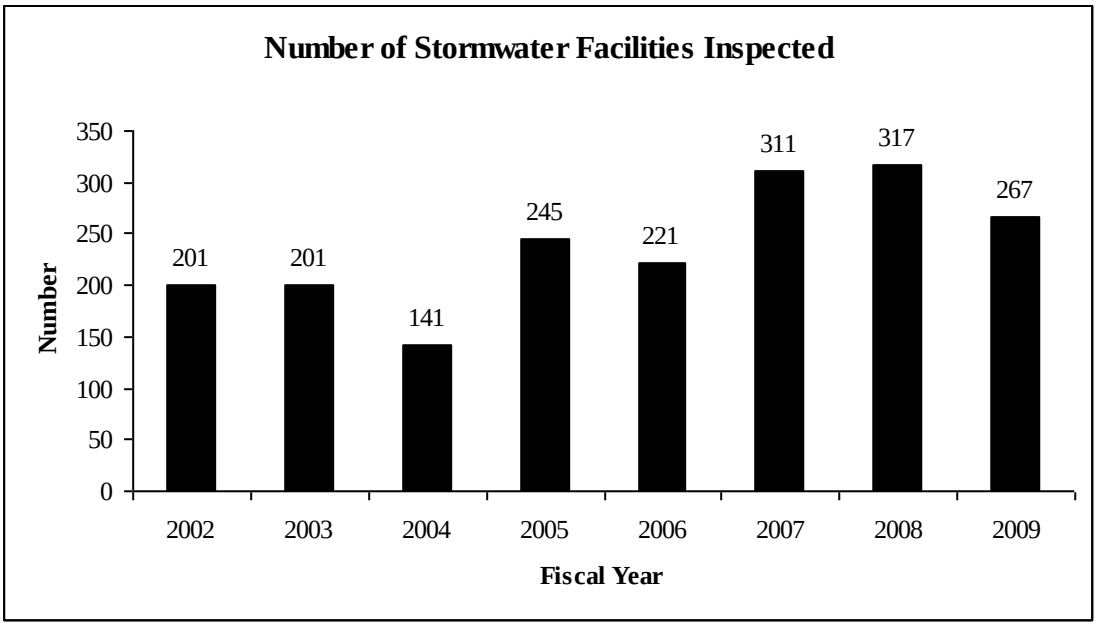


Figure 9. Eight-Year Trend for Stormwater Facility Inspections



FY 2010 Goals: The District will continue inspections of commercial, residential, and road construction projects for the maintenance and implementation of erosion control devices and BMPs. DDOE will continue to track SWM facilities inspected and their BMPs through the automated database system.

Preventive Maintenance Inspections for Stormwater Management Facilities

Performance Standard: The District conducts inspections and maintenance of District SWM facilities.

The District continued inspections and necessary maintenance of all District SWM facilities. Coordination between District agencies will continue in conducting inspections, and the District will maintain the database of all SWM facilities and schedules of inspections.

WASA Department of Sewer Services continues to conduct inspections of stormwater control devices, including 15 stormwater pumping stations as part of their routine maintenance program. These maintenance inspections include greasing of bearings, draining condensate, exercising equipment, checking oil levels, visual inspections, and housekeeping.

WASA also performs maintenance on the storm sewer system. These maintenance activities include responding to reports on blockages or defects, the clearing of lateral channels, and ensuring that the outlet structures of the MS4 remain clear.

DCMR §534.2 states that "the owner of the property on which a stormwater management facility has been constructed shall maintain the facility in good condition, and promptly repair and restore whenever necessary all grade surfaces, walls, drains, structures, vegetation, erosion and sediment control measures, and other protective devices." A maintenance schedule for stormwater management facilities is to be developed and submitted as part of the facility's stormwater management plan. The District inspects the preventive maintenance of all infiltration systems, swales, retention, or detention structures. Maintenance and operation inspections occur within one year of completion of construction of a storm water facility. There after they are prioritized by type of facility, land use request for inspections by owners and contractors, and complainants.

FY 2009 Activities: During FY 2009, WASA performed inspected stormwater control devices and/or pumping stations on a regular basis as part of a set schedule. The SWM facilities inspected for maintenance are located within all four quadrants of the District.

DDOE maintains a SWM facility maintenance database system for tracking BMPs. The database enables more efficient scheduling and retrieval of maintenance records. Since FY 2006, DDOE has used the MAR geocoder program to provide accurate address data.

DDOE will continue to use the MAR tool to verify the existing addresses of stormwater management facilities located in the maintenance database.

DDOE requires the submittal of a Declaration of Covenant for SWM for residential and business property owners as part of the approval process for new construction activities. These covenants state that the owner must provide a schedule of maintenance activities, the stormwater management devices will be inspected periodically, and the owner will be responsible for correcting any deficiencies noted, at the owner's expense. The SWM facilities are located in all four quadrants of the District. It is estimated that approximately 57-60 percent of the facilities inspected for maintenance are within the MS4.

FY 2010 Goals: The District will continue inspections and maintenance of SWM facilities. DDOE will continue to require the submittal of a Declaration of Covenant for SWM facilities for residential and business property owners as part of the approval process for new construction activities.

Enforcement Plan

The Permit in Part III.B.11 requires that the Permittee develop and implement an enforcement plan for carrying out the objectives of the SWM Plan.

Performance Standard: The District implements the stormwater pollution control enforcement plan which emphasizes enforcement activities and resources, documentation of violations, and assessment of enforcement effectiveness.

Enforcement Activities and Resources

Performance Standard: The District uses a database system for SWM facilities maintenance inspection to track the use and maintenance of construction projects with SWM BMPs. The *Environmental Enforcement Process in the District of Columbia* details the written enforcement strategy concerning enforcement actions. A copy was provided as an attachment to the 2007 Annual Report.

DDOE has refined and updated the database system for SWM facilities maintenance inspection to include tracking of construction projects with SWM BMPs. The updated database system contains data for BMPs constructed since the inception of the program in 1988 and has enabled faster and more efficient rescheduling of inspection and retrieval of maintenance records.

FY 2009 Activities: As a result of illicit discharge investigations, DDOE personnel issued Notices of Violation, Notice of Infractions, and separate Site Directives for corrective actions last year. Furthermore, DDOE has allocated three environmental engineers and two environmental specialists in support of these activities. These staff members are fully dedicated to stormwater management issues related to implementation of the SWM Plan and the Permit.

FY 2010 Goals: The District will continue to update the SWM facilities maintenance database for tracking inspections and data on constructed BMPs.

Documentation of Violations

Performance Standard: The District maintains a list of violations of the DCMRs pertaining to stormwater and soil erosion. This listing is reviewed by DDOE staff for needed enforcement actions. The listing of violations and enforcement actions is used as a measure of the effectiveness of the Enforcement Program.

DDOE conducted inspections of construction sites for violations of water quality pollution and soil erosion and sediment control regulations.

FY 2010 Goals: The District will continue to provide for the updating and review of violations of the DCMRs pertaining to stormwater and soil erosion.

Assessment of Enforcement Effectiveness

Performance Standard: The District maintains tracking and effectiveness metrics of its inspection and enforcement actions.

Inspection procedures are outlined in the 21 DCMR § 534 *Water Quality and Pollution Regulations* and the *Nonpoint Source Management Plan* for the District (provided as attachments to the 2007 Annual Report). The legal basis for conducting inspections related to stormwater management is outlined in 21 DCMR § 534. Procedures for conducting an inspection are detailed in the *Standard Operating Procedures for Soil Erosion and Sedimentation Control and Storm Water Management Inspection* and the *Standard Operating Procedure for the Enforcement of Soil Erosion and Sedimentation Control and Storm Water Management Regulations* (both provided as attachments to the 2007 Annual Report).

DDOE has refined and updated the District's automated database system for tracking stormwater management facilities inspected for maintenance, including any tracking of construction projects with stormwater management BMPs. As previously discussed earlier in this Section, the updated database system contains data for BMPs constructed since the inception of the program in 1988 and has enabled faster and more efficient rescheduling of inspection and retrieval of maintenance records. Additional refinements to the automatic database system were made in 2005 and include the use of an Excel database to track "Final Inspection" completion and "Final Inspection Notification Letters" to SWM applicants, as well as monitoring the receipt of "As-Built" plans for completed stormwater projects.

FY 2010 Goals: The District will continue inspections and to update the database system.

III.F.12 Public Education Program

The Permit in Part III.B.12 requires that the District develop a public education program to reduce pollutant loading from the MS4 to receiving waters.

The stormwater pollution control public education program entails a mixture of programs:

- Public web site development and update.
- Education and outreach.
- Household hazardous waste collection and disposal.
- Pesticides, fertilizer and pet wastes program.
- Industrial facility education program.
- Construction site operators' education program.
- Agency cooperation program.
- District-wide science fair: Stormwater Awareness Award.
- Library submittals.

Public Web Site Development

Performance Standard: The Stormwater Management Division maintains a public web site which seeks to discuss all pertinent aspects of the MS4.

FY 2009 Activities: With the transfer of the Stormwater Administration from WASA to DDOE in February of 2007, DDOE established a Stormwater Management Division

section of its website. This includes several pages of background on the history of the Stormwater Management Division, the District's MS4 system, and the MS4 Permit. There are also links to report documents prepared by DDOE, an overview of each District Agency's stormwater activities, and a Frequently Asked Questions page. A GIS application is also linked which allows residents to determine what watershed and sewershed their address is located in. Finally, links are also included for other stormwater-related topics, such as the recently completed Stormwater Administration Study Report, the DC Council's Stormwater Management Task Force, and the Palisades Neighborhood Drainage Study.

FY 2010 Goals: DDOE will continue to update, add to, and refine the MS4 website to display all relevant information including reports, accomplishments and fact sheets.

Education and Outreach

Performance Standard: The District provides environment and stormwater awareness outreach programs targeted to teachers, environmental educators and students throughout the District.

FY 2009 Activities: The FY 2009 outreach programs are described in detail below.

Meaningful Watershed Educational Experience

DDOE and DCEEC members provided Meaningful Watershed Educational Experiences to approximately 5,000 District school children in 2009. Of the 5,000 experiences 1,760 students spent an average of 25 hours participating in a meaningful learning experience.

DDOE completed the second year of the B-Wet, National Oceanic and Atmospheric Administration grant award in partnership with DC Public Schools and several DC Environmental Education Consortium partners, providing training to 35 teachers from 17 schools and Meaningful Watershed Educational Experiences to 801students. DDOE hosted a Teachers Exchange where teachers shared their experiences and lesson plans. An evaluation was also conducted to guide the program into the next year of programming and to access improved teacher knowledge about the watershed and their comfort teaching about the watershed and related issues.

Summer Environmental Education Camp

Two Aquatic and Watershed week long camps were conducted for the Bancroft Summer School Program involving 30 students. Students learned about watersheds, point and non-point sources of pollution, ecology of the Anacostia watershed, and the importance of wetlands and plants to healthy waterways. Students experienced the river by boarding an environmental boat, toured Kenilworth Aquatic Gardens, planted a native plant garden, weeded, trimmed and mulched a rain garden and went on a scavenger hunt of the Aquatic Education Center.

RiverSmart Schools

DDOE continues to work with schools selected for the schoolyard conservation sites program, entitled *RiverSmart Schools*. This program provides teachers with the training and resources necessary to install conservation sites on their school grounds and utilize them for outdoor environmental education focused on the protection and restoration of local watersheds and the Chesapeake Bay. In 2009 *RiverSmart Schools* accomplished the following:

- Twenty-two teachers in attendance from six schools received 16 hours of training in 4 sessions.
- A total of 550 students were taught lessons on butterflies and caterpillar habitat, native and invasive plants, the concept of a watershed and wetland functions, planting techniques, schoolyard assessments.
- Conservation sites were installed at Center City Public Charter School and Anne Beers. A native sensory garden was planted at Center City along with amending impacted urban soil. A butterfly garden was installed at Anne Beers with a variety of nectar and host native plants. Eight large, 4- 8 inch caliber shade trees were also planted.
- A Volunteer Maintenance Program was developed to support the upkeep and maintenance of the previously installed sites. A 16 hour training program was provided for the volunteers. Volunteers installed rain barrels, watered, weeded and mulched sites and helped teachers with other garden duties and lesson plans.

Storm Drain Marker Program

In 2009, the DDOE Watershed Protection Division installed approximately 1,110 storm drain markers throughout the District of Columbia with individuals from various volunteer groups, including the DC Green Jobs Summer Youth Program. DDOE will continue to meet its goal of installing 1,000 storm drain markers annually.

Summer Environmental Education Enrichment Program

Three schools and 200 students participated in a Summer Environmental Education Program in the summer of 2009. In this program, DDOE conducted environmental education presentations in coordination with DC Public Schools aftercare program. These presentations included an exploration of soils, watersheds, and point and non-point sources of pollution.

IPM Gardening Workshop and IPM Information Distributed

A series of organic gardening and stormwater management gardening workshops were conducted for 200 community gardeners on soils, backyard habitat, composting, removing invasive plants, green roofs, shade trees, and rooftop gardens. A total of 300 community gardeners, RiverSmart School teachers and volunteers received gardening bags with IPM literature.

Environmental Education Workshops and Networking Events

In FY 2009, DDOE provided environmental education training to over 353 teachers, and educators. Project Wet, and Project Learning Tree, two international environmental education programs, Teacher's Nights and gardening training for the Volunteer Maintenance Program were conducted.

Environmental Education Resource Center

During FY 2009, DDOE's Environmental Education Resource Center continued to provide resources and materials for teachers and other environmental educators to enhance classroom curricula and implement conservation projects. There were 1,132 individuals who were provided with 11,660 pieces of information on watersheds, nonpoint source pollution, and environmental education.

Conservation Education (Project Learning Tree, Project WET, Project WILD)

These internationally recognized programs are utilized to train educators in innovative techniques for exploring a wide range of environmental concepts with students and teaching critical thinking skills that lead to environmental stewardship (grades K-12). In FY 2009, DDOE provided environmental education training to 1,718 teachers.

Pollution Prevention

DDOE issued several grants for support of the Clean Marina Program (below) and to implement IPM at schoolyards and community gardens. DPW distributed a monthly

calendar that includes information regarding DPW's activities (household hazardous waste collection, leaf collection, block cleanups, etc.) to all District citizens.

Clean Marina Program

DDOE and the NPS-National Capital Region partner with marinas in the District to educate the public on environmentally responsible boating practices. The program encourages marina, boatyard, and boat club operators, as well as the boating public, to reduce pollution through maintenance, operation and storage of recreational vessels. In FY 2009, two new marinas were certified a Clean Marina, and three marinas were re-certified. DDOE, NPS, and boat clubs and marinas of the District also sponsored a Clean Marinas Workshop in September 2009. At this workshop, marina managers, boat clubs, and District boaters learned about impacts of upcoming construction on boating activities and water quality, District water quality regulations pertaining to boaters and marinas, rain barrels and landscaping techniques that can help reduce the storm water flowing from marinas directly into the rivers, and the District's plan for reducing CSO events.

RiverSmart Homes

In FY 2007, DDOE began the RiverSmart Homes Program that offers incentives to homeowners for implementing various practices (installation of rain barrels and rain gardens, planting large trees, replacing impervious surfaces with pervious surfaces, etc.) in their yards that will reduce stormwater runoff. Efforts to date on this program are described in more detail in Section III.F.1. DDOE is currently implementing a pilot-phase portion of this program in Pope Branch (of the Anacostia). DDOE intends to offer the program city-wide at a future date, based on lessons learned from the pilot phase.

Household Hazardous Waste Collection and Disposal

Performance Standard: The District maintains a household hazardous waste collection and disposal program.

The District now maintains two permanent household hazardous waste collection facilities. The District promoted the collection and disposal of household hazardous waste through collection days previously discussed in Section III.F.10. These activities are promoted through the use of a public education pamphlet and press releases discussing solid and household hazardous waste.

FY 2010 Goals: The District will continue to provide educational opportunities to District residents to properly dispose of and ultimately reduce the amount of household hazardous waste and to operate permanent household hazardous waste facilities.

Pesticides, Fertilizer, and Pet Wastes Education Program

Performance Standard: The District continues to provide educational materials as part of its IPM/Nutrient Management Program.

Pesticides: DDOE has developed an education and outreach program entitled "Integrated Pest Management/Nutrient Management." The purpose of the program is to better inform the public on the proper use and disposal of pesticides and on safer alternatives to pesticides. The programs provide education and outreach activities designed to educate citizens about environmentally sound practices with regard to the use of pesticides in the yard or garden and the introduction of "good" pests into the garden.

District residents are educated on the proper application of pesticides through the IPM. This program gives residents guidance on how to choose an appropriate pesticide, how to choose a pest control company, and what regulatory requirements exist regarding commercial companies applying pesticides. This pamphlet also informs residents that there is a water quality impact associated with the application of too much pesticide.

In FY 2009, DDOE continued to implement an IPM campaign to inform gardeners within the District about Integrated Pest Management and its role in reducing non-point source pollution. As part of this campaign, presentations were delivered to audiences at community gardens and master gardening classes. In addition, DDOE also gave IPM presentations to staff members at DC Parks and Recreation facilities.

Fertilizers: Through DDOE's nutrient management program, the public is educated about the proper amount of fertilizer to use on a lawn. In addition to fertilizer use, this program addresses the proper way to mow, the use of mulches and the effects of applying too much mulch.

In FY 2009, DDOE distributed educational materials such as Nonpoint Source brochures and videos that provide suggestions on proper lawn fertilization, disposal of household waste, and application of pesticides and herbicides. The materials were primarily distributed through the Environmental Resource Center at environmental events where the target audience is teachers and District residents.

Pet Wastes: DDOE has developed an education and outreach program entitled "Scoop Your Pet's Poop." This program is designed to inform citizens of their legal obligation to manage their pet's waste and to explain the reasons why it is important to do so. Currently there are laws in the District requiring pet owners to remove animal wastes. A brochure outlining the requirement of the law is available to all residents to inform them that runoff from animal waste is a source of nutrient pollution in the waters of the District. The brochures are sent to veterinarian hospitals, to the DC Animal Shelter, and to dog park community organizations. Soon DDOE hopes to also include flyers in real estate transaction packets: informing and reminding residents (at the time of purchase or rental) of the legal requirement to pick up pet waste in all areas of the City.

In FY 2010, DDOE continued to distribute Pooper Scooper brochures concerning pet wastes to DPR, the DC Animal Shelter, veterinarian offices, Martin Luther King, Jr. Public Library, public events, and teacher training workshops.

FY2009 Industrial Facilities Education Program

Performance Standard: The District provides industrial facilities with educational materials, seminars and conferences regarding the proper handling and storage of chemicals.

FY 2009 Activities: The District continued the industrial facility outreach program including the distribution of pamphlets on preventing discharges to Hickey Run. DDOE personnel used inspections to promote awareness of the proper methods of chemical storage. Based on what they observe on-site, inspectors can make facility-specific recommendations to improve their compliance with stormwater regulations.

FY 2010 Goals: The District will continue to disseminate educational materials and information through seminars and workshops to the industrial facilities within the MS4 drainage area.

Construction Site Operators' Education Program

Performance Standard: The District provides educational materials to construction site operators.

Educational training for construction site operators is conducted during the site inspection process. This training includes distribution of the District's *Stormwater Management Guidebook*s and the *Erosion & Sediment Control Handbook* (provided as attachments to the 2007 Annual Report), and addresses particular needs and questions of the operators. These books outline the regulatory requirements of the District for construction activity.

FY 2009 Activities: In FY 2009, DDOE continued to distribute guidance manuals demonstrating the proper maintenance of sand filter water quality structures and copies of a video that illustrates the proper maintenance of the sand filter, which is a commonly used BMP on construction sites. The videos were distributed to property management companies, SWM facility maintenance service providers, and individual building engineers and property managers.

DDOE maintained a list of qualified stormwater management facility maintenance contractors registered to do business in the District. The list is made available to all persons responsible for the maintenance of individually owned private stormwater management facilities. To ensure proper maintenance of stormwater management facilities, DDOE established inspection procedure guidelines as required by 21 DCMR § 534.1. DDOE policy requires the submission and approval of a work plan before restorative maintenance of the filter bed of any District sand filter facility can proceed.

FY 2010 Goals: The District will continue to provide educational materials to construction site operators and to enforce the inspection procedure guidelines set forth in 21 DCMR § 534.1.

Agency Cooperation Education Program

Performance Standard: District agencies work with local, regional, and federal government agencies, non-governmental agencies, and universities to prepare, promote, and distribute public educational materials.

The District conducted public education programs to address stormwater topics. The District developed public education materials in coordination with other agencies.

The District continues to maintain partnership arrangements with regional and local organizations. A thorough discussion of partnerships and cooperative efforts, including public education, between the DDOE and other federal, regional, and local agencies and organizations appears in the *Nonpoint Source Management Plan II*. These partnerships help promote stormwater pollution control issues.

Regional Organizations: District agencies are currently working with the Interstate Commission on the Potomac River Basin (ICPRB), the Metropolitan Washington Council of Governments, and the Anacostia Watershed Restoration Committee (AWRC). These agencies meet regularly.

District agencies and the ICPRB have identified and developed information on toxic substances problems, and in FY 2007 they completed and submitted to EPA for approval a TMDL for polychlorinated biphenyls (PCBs). DDOE continues working with the AWRC and other agencies to reduce trash and improve water quality, wetlands, forest cover, and ecological integrity of fish habitat in the Anacostia watershed. DDOE is monitoring restored wetlands for vegetation type and coverage. This data is being collected twice per year by DDOE and U.S. Geological Survey (USGS) and is analyzed by USGS. DDOE also continued working with the State of Maryland, Prince George's and Montgomery Counties, and EPA Region III to develop a trash management plan.

Local and Federal Government Agencies: EPA is providing technical and program support to the Nonpoint Source programs of the District.

Watts Branch Stream Restoration: DDOE continued to work with the USFWS on the stream restoration plans for Watts Branch. In FY 2008, the designs for the stream restoration project were completed. As of 2009, the project is awaiting a FEMA floodplain permit. This step has been delayed by a delay in issuing revised 100 year floodplain maps; upon finalization of these floodplain maps, the District will be able to obtain the necessary permits for the Watts Branch Stream Restoration project.

Pope Branch Stream Restoration: Work continued on the Pope Branch stream restoration project in FY 2009, with DDOE and WASA working with a new contractor to to make significant changes to the designs. DDOE and other partners (WASA and DPR) continued to attend regular meetings with community representatives to keep them

apprised of the status of the work. A contract is expected to be awarded for construction of the project in late 2010, with constructed anticipated in FY 2011.

Lafayette Park: Harvest & Reuse

DDOE Watershed Protection Division (DDOE/WPD), working with the District Department of Parks and Recreation (DPR) and the Friends of Lafayette Park, selected the Lafayette Park as the first candidate for a District park runoff harvest & reuse demonstration site. This project, installed in 2009, captures run off from a children's sprinkler play site and stormwater runoff from the surrounding asphalt and directs it to the Park's perimeter dense native plantings through a gravity irrigation system. The impervious collection site covers approximately 0.3 acres. The Lafayette Park is adjacent to the DCPS Lafayette Elementary School bounded by 33rd Street, between Patterson Street and Broad Branch Avenue N.W. This location is in the MS4, funding was provided through a 319 grant.

Fire Engine House Green Roofs

DDOE Watershed Protection Division (DDOE/WPD), working with the District Fire and Emergency Medical Services selected two Fire Engine Houses with scheduled roof replacement projects to retrofit with vegetated roof systems (green roofs). The contract documents transferring funds, defining scope of work, and making the construction award were all completed in 2009. Implementation of the first green roof at Engine House 6 will be completed in 2010. Engine House 30 is scheduled for construction in 2011. Engine House 30 is in the MS4 and is supported with MS4 funds.

Other Agencies

DDOE worked with USGS and NPS to quantify damage to restored wetlands by resident Canada geese. This study (led by USGS) will scientifically show the impacts of resident Canada geese upon previously completed wetland restoration projects.

USGS maintained gauging stations along Rock Creek and Watts Branch that provide data for the discharge monitoring program described in Section III.D of this report.

Universities

Universities in the District provided research and support services to the MS4 programs of the District government. These services included assessment of petroleum and hydrocarbons in groundwater, groundwater hydrology and wetlands, toxic organic compounds, educational videos and projects on nonpoint sources and pollution

prevention. In addition, they provided interns for public educational and biological monitoring programs.

Nonprofit/Environmental Group Partnerships

Community Resources/DC Greenworks

In FY 2008, DC Greenworks administered the District's green roof incentive program. This program operates as a subsidy, providing $3 per square foot to defray the costs of installing green roofs on selected projects.

In FY2009, the District expanded the DC Greenworks green roof rebate program to $5/sf with a maximum rebate to property owners of $20,000 per building. This very popular program was responsible for the installation of 15 green roofs (6 during 2008 and 9 in 2009). This covered over 113,000 sf of District rooftops with vegetated surfaces. This effort is estimated to reduce stormwater pollutant loads by 2 million gallons annually. Prior to 2007 the District had less than 30,000 sf of vegetated roofs installed. By the end of 2009 that number had increased more than tenfold to the current 470,000 sf. with the incentive program accounting for one quarter of that increase. This program receives 319 funds for properties in the combined sewer system and MS4 funds for projects in the MS4. WJLA/NewsChannel 8 ran a three minute on the District Green Roof Rebate Program, "The District is giving green to go green you're your roof" on August 5th, 2009. Reporter Mike Conneen explained what a green roof was, interviewed a homeowner who received the award, showed footage of the green roof, discussed the value of the rivers, air quality and potential energy savings. The interview also includes a spotlight on then DDOE Director George Hawkins. See, http://www.news8.net/news/stories/0809/646986_video.html?ref=newsstory

Friends of the Takoma Recreation Center

Friends of Takoma Park Recreation was awarded a competitive grant to install raingardens to treat stormwater from six tennis courts at the District Takoma Recreation Center. The installation was completed early September 2009 and the final planting ceremony was held October 31st 2009. These gardens were incorporated into the existing hill slope to create a cascading three tiered system that captures stormwater runoff from approximately 50,000 square feet of impervious surface. This project is in the combined sewer system and was funded through a 319 grant.

Brent Elementary School Parent Teacher Association

Brent PTA was the number one ranked applicant out of 32 applicants to a unique LID grant program intended to develop a District/Federal partnership program between DDOE and USDA-NRCS to advance LID installation in the District. This project removed over 1200 square feet of asphalt around part of the perimeter of the Brent School's playground and installed a raingarden to manage stormwater runoff from the surrounding 20,000 square feet of remaining asphalt. DDOE funded this project 100%; USDA-NRCS acted as the contracting/project management: OPEFM and DDOT are the landowners. This project is in the combined sewer system.

The Potomac Conservancy

The Potomac Conservancy is no longer a DDOE partner for this program. The new partner is the Student Conservation Association who have provided training for the teachers and worked with the teachers to provide conservation lessons in and outside of the classroom. The implementation part of the program will be contracted out. This change in the program has brought many challenges since the land owners are many and each needs a different agreement. Some schools are DCPS, others charter one is a church school. Because of the program reorganization and the new processes that are being set in place only two schools sites have been installed this period. However, come fall, Banneker, St. Peters and Stokes will be worked on and additional features will be added to Center City.

Anacostia Watershed Society

DDOE worked with AWS to provide extensive public outreach on LID and Anacostia River water quality in the Anacostia Gateway neighborhood.

Following a FY 2005 grant award to the AWS by DDOE to educate the Anacostia community about LIDs and install a rain garden, the plans for the rain garden have been postponed. AWS, NPS, WASA and DDOT worked together to design a rain garden at the entrance to Anacostia National Park. The installation has been delayed while DDOT realigns a road overpass in the immediate vicinity of the initial chosen location. A new location for the rain garden will be determined after the realignment is complete.

Keep Washington Beautiful

DPW participates as a member of the Board of Keep Washington Beautiful providing planning and support of major events. Through their Helping Hands Program, DPW also acts as a year-round resource distributing kits for neighborhood groups committed to

keeping their communities clean through block-party cleanup events. DPW provides packers and sweepers in support of community cleanups.

Pope Branch Citizens Group

The Pope Branch Citizens Group continued to work with District government agencies on the Pope Branch stream and sewer line restoration project. They met with District agencies throughout FY 2009. The Pope Branch Citizens Group worked to improve water quality along Pope Branch by participating in cleanup events organized by other local non-profit organizations such as Earth Conservation Corps.

District-Wide Science Fair: Stormwater Awareness Award

The 62st Annual D.C. Math, Science and Technology Fair was held at the Brookland Education Campus at Bunkerhill. The D.C. Science Fair showcases some of the best works by students of public, private, parochial, and charter schools in the District. Members of the MS4 Task Force and DDOE staff participated in judging 150 student projects and presenting cash awards to each of the winners.

In 2005, the MS4 Task Force established a Stormwater Awareness Award as part of an ongoing effort to educate citizens about stormwater issues facing the District. The intent of the award was to stimulate interest among students and teachers in stormwater issues. The award is given to one student each from the middle school and high school levels whose science project best demonstrates stormwater-related issues such as water quality degradation, sediment transport, and biological/ecological impacts in the District.

Library Submittals

Performance Standard: The District places all Permit records and documents on file with the public library for use by the general public.

The Permittee has established a system to ensure that Permit records and documents are available for public review in a single location at the Martin Luther King, Jr. Public Library.

FY 2009 Activities: Submittals included:

- All annual and semi-annual reports.

- Annual Implementation Plans and the specific TMDL Implementation Plans for the Anacostia and Rock Creek Watersheds.

- Annual Discharge Monitoring Report.

- A copy of all intergrated pest and nutrient management information on file.

FY 2010 Goals: DDOE will maintain the same level of submittals to the Martin Luther King, Jr. Public Library. In addition, all documents will be available on DDOE's Stormwater Management Division website.

III.G Total Maximum Daily Load Waste Load Allocation Implementation Plans

Part IX.B of the Permit requires the District to submit implementation plans to reduce discharges consistent with any applicable EPA-approved WLA component of any established TMDL.

The Permit specified that TMDL WLA Implementation Plans be submitted to EPA for the Anacostia and Rock Creek watersheds. These Plans were completed in 2005.

The Annual Implementation Plans summarize the tasks conducted by the District to control pollutants in stormwater discharged from the MS4. The 2009 Implementation Plan, which was completed in FY 2009, includes budgetary analysis and planned activities for FY 2010, which covers the period October 01, 2009 through September 30, 2010.

During FY 2009, TMDL WLA Implementation Plan activities were underway as listed below:

Street Sweeping

- DPW continued its street sweeping activities.

Catch Basin Cleaning

- WASA continued ongoing activities at their current level; no new activities were planned.

Household Hazardous Waste

- DPW managed the collection and disposal of 638 55-gallon barrels of household hazardous waste and 173 tons of unwanted electronics for recycling.

Inspection and Enforcement

- DDOE continued searching for illicit discharges in the field in response to complaints, performing visual inspections of selected outfalls, and working with WASA and/or other responsible parties to ensure the correction of illicit discharges.

- DDOE continued to prevent illicit discharges by providing on-site recommendations to facilities and participating in public education and outreach events, such as the Annual Anacostia Environmental Fair and Earth Day.

- DDOE continued:

    - Incorporating updated mapping layers into the GIS,
    - Incorporating the MS4 outfall/infrastructure verification data into the GIS,
    - Combining updated industrial facility location data into the GIS (based on field verification for 60 facilities within the MS4 service area that are part of NPDES, CERCLA, and/or RCRA databases), and
    - Generating maps to support field investigations.

Constructed LIDs and BMPs

- DDOE continued to strengthen its erosion and sediment control program, and conducted training for construction staff and inspectors.

- DDOT continued the Anacostia Riverwalk Trail construction project, completing Section 2 of the Trail. This included installing four bioretention cells and 2 bioswales.

- DDOT completed construction of the Watts Branch Bicycle Trail, a portion of which will remove paved surfaces and install BMPs and LID stormwater controls.

- DDOT started construction of The Metropolitan Branch Trail and it includes bioretention and infiltration trenches to manage runoff.

- DDOT completed design on the Nannie Helen Burroughs Ave. NE and the Pennsylvania Ave. SE projects, both of which include numerous LID elements.

- DDOT identified a number of upcoming construction projects for LID opportunities and pilot projects.

III. H Program Funding

The District's Stormwater Permit Compliance Amendment Act of 2000 established a Stormwater Permit Compliance Enterprise Fund to provide money for implementing the activities required by the 2004 MS4 Permit. Starting July 1, 2001, WASA began collecting a stormwater fee for the Enterprise Fund. This fee structure was designed to raise $3.1 million/year, which at the time was the estimated cost of the activities required to comply with the 2000 MS4 permit. In 2008, in response to the DDOE/EPA MS4 Letter Agreement, DDOE updated its estimate of permit compliance costs to approximately $13.2 million per year. In order to secure this funding, DDOE proposed and enacted the first stormwater fee adjustment since the fee's inception. As a result of this adjustment in November 2008, the stormwater fee was billed on the following schedule:

- Single Family Residence: $1.98 per month
- Multi-Family Residence: 4.4% of water and sewer bill
- All other properties: 6.3% of water and sewer bill

In addition, in July of 2007 Councilmember Jim Graham directed the District Department of the Environment to convene a Task Force to address stormwater management issues in the District of Columbia. This Task Force was charged with making legislative recommendations on a number of stormwater-related topics, including the adequacy of current funding mechanisms for stormwater programs. The Task Force met several times between November 2007 and March 2008, and prepared a number of legislative recommendations for the DC Council's consideration. Among these was a recommendation to base the Stormwater Fee on impervious surface, as well as granting the DDOE Director the authority to adjust stormwater fees as necessary. A record of the Task Force proceedings, including background documents, detailed meeting summaries, and presentations, can be found on DDOE's website at http://ddoe.dc.gov/ddoe/cwp/view,a,1209,q,497143.asp.

The DC Council incorporated many of these recommendations into the Comprehensive Stormwater Management Enhancement Amendment Act of 2008, which became effective in March of 2009. This Act authorizes an impervious stormwater fee; a copy of the Act is included as Appendix B. This Act authorizes an impervious stormwater fee,

and became effective in March of 2009. In May of 2009, DDOE revised the stormwater fee structure to be based on impervious surface. A property's impervious surface area is a more direct measure of the stormwater runoff generated by that property, and therefore provides a more accurate and equitable method for apportioning the District's stormwater management costs among ratepayers. The District's impervious stormwater fee uses Equivalent Residential Units (ERUs) of 1,000 square feet as billing units (1,000 square feet was determined to be the average amount of impervious surface on residential properties in the District). Each ERU in the District is charged $2.57 per month for the stormwater fee. Single family residences are billed based on one (1) ERU, while all other properties will be charged based on their total impervious surface area, rounded down to the nearest hundred square feet and converted into ERUs.A cost benefit analysis of current and planned MS4 permit activities is included in the 2010 Implementation Plan submitted together with this report. The Implementation Plan explains the activities and anticipated budgets planned for FY 2011. Implementation of the budgeted activities outlined in the 2010 Implementation Plan will substantively fulfill the requirements of the current Permit. The Implementation Plan that was submitted last year consists of a cost benefit and affordability for FY10. The plan will continue current activities to manage stormwater pollution and encourage improved stormwater management techniques, while providing the organization, legal framework, technical evaluation, and specific data necessary to ensure progress and track improvement in the quality of stormwater discharged from the MS4. Table 18 provides a summary of the Enterprise Fund expenditures by agency for FY 2001-FY 2009 for Permit-required programs.

Table 18. Summary of Enterprise Fund Expenditures for FY 2001- FY 2009 for Permit-required Programs.

Agency	FY01 - FY04	FY05	FY06	FY07	FY08	FY09	Total
DOH/ DDOE	$237,987	$748,371	$263,643	$1,049,248	$1,192,658	$851,707	$4,343,614
DDOT	$0	$91,732	$350,240	$1,016,050	$843,888	$2,700,000	$5,001,910
DPW	$1,983,037	$490,715	$922,089	$1,373,723	$1,092,050	$800,000	$6,661,614
WASA	$2,159,858	$1,253,434	$1,120,603	$1,477,686	$390,802	$154,850	$6,557,233
Total	$4,380,882	$2,584,252	2,656,575	$4,916,707	$3,519,398	$4,506,557	$22,564,371

III.I Assessment of Controls

Assessing the effects of the SWM program in reducing pollution and achieving the requirements of the CWA involves a variety of measurement metrics and processes. According to EPA's *Guidance Manual For The Preparation Of Part 2 Of The NPDES Permit Applications For Discharges From Municipal Separate Storm Sewer Systems* (Attachment A-8 on the CD), there are two ways to assess the SWM program. They are:

1. Direct Measurement, which includes the number of BMPs installed, removal efficiencies, stormwater volume reduction, event mean concentration reduction, and estimated pollutant loading reduction; and

2. Indirect Measurement, which includes but is not limited to, the amount of household hazardous waste collected, number of public hearings and attendance at these hearings, number of spill cleanups, number of sewer inlet stencils, number of educational brochures distributed, and number of erosion and sediment control permits issued.

In order to help provide direct assessment of the SWM program impact on water quality, the District is continuing its long-term monitoring program. The program rotates stormwater sampling from the Potomac watershed to the Anacostia watershed to the Rock Creek watershed on an annual rotation. By focusing monitoring in one watershed during a given year, a more complete measure of pollutant loading from that watershed is obtained.

Within each watershed, DDOE has selected outfalls that are representative of the MS4 for inclusion in the discharge monitoring program. By monitoring representative outfalls, an economy of time, effort, and resources can be made in assessing the impacts of the SWM program on pollutant discharge from the MS4 as a whole. Programs such as removing illicit connections, improved erosion and sediment controls for construction sites, and refurbishment of municipal waste transfer and salt storage areas will result in immediate and predictable reductions to pollutant loading to stormwater runoff in a known sewershed. Such measures require monitoring data and runoff modeling to quantify results.

Monitoring provides measurement of the pollutant levels in a watershed so as to evaluate the removal of pollutants by structural BMPs. These BMPs may include LID techniques, catch basin filters and/or inserts, oil and grease traps and flow reduction devices incorporated by new construction and redevelopment throughout the District. These structures are placed on individual sites by residents, businesses, and federal facilities and

are designed to control the water flow and pollutants from the land area of that specific site. A reduction of pollutants at a monitoring site cannot be expected until after a significant amount of the monitored watershed area is controlled by BMPs.

The pollutant removal efficiency of a BMP is typically expressed as a percentage reduction in the concentration of a particular pollutant. In order to evaluate the effect of a BMP, knowledge of the pollutant level (in the water flowing from the site) prior to BMP construction is required. After construction, monitoring data should provide a new measure of the level of the pollutant so that a percentage reduction can be estimated. Examples of this may be a 70 percent reduction of oil and grease in a BMP installed near an automotive repair shop, or 80 percent reduction of floatable trash (total suspended solids) in a BMP near a public park area.

Progress of the SWM program under the SWM plan can also be assessed indirectly utilizing statistics regarding stormwater management activities reported by District agencies. While these measures are qualitative and not quantitative, the level of effort, equipment and manpower for each SWM activity under the SWM plan help to provide indirect measurement of pollution reduction achieved. Programs such as public education and contractor and equipment operator training produce effects that are dispersed over time and location. Impacts to the pollutant levels of the MS4 are usually indirectly measured by tracking the number of persons trained or through testing of comprehension.

Some SWM plan measures, such as long-term traffic and transit planning, and programs implemented by consumers like rain leader disconnection or other small-scale residential BMP installations, require significant time in planning and implementation. Thus, effects of today's work may not be measurable within the term of the current permit, or even the following one. Such measures, while quantifiable, require extended time intervals of measurement, or estimates of future implementation rates and efficiencies.

Methodologies for assessing the effects of the SWM program in reducing pollution and achieving the requirements of the Clean Water Act will continue to be developed and refined to provide a consistent measure of progress and success in the MS4 program.

III.J How This Program Meets Requirements of the Clean Water Act

Full implementation of this program is critical with respect to the CWA. The primary method by which the CWA imposes limitations on pollutant discharges is the permit program established under Section 402 and the NPDES program. Under the NPDES

program, any person responsible for the discharge of a pollutant or pollutants into any waters of the United States from any point source must apply for and obtain a permit.

The District has developed watershed-specific implementation plans for two of the District's major watersheds, Anacostia River and Rock Creek. The implementation plans discuss the level of effort needed to meet the TMDL WLA determined for the watershed. These plans are being used as management tools to both direct future stormwater efforts and estimate the anticipated costs of the activities. In this manner, the implementation plans help to meet the requirements of the CWA.

III.J.1 Electronic Mapping and GIS Modeling

The District's stormwater model provides an important management tool for the coordination and evaluation of the stormwater pollution control effort. As the model continues to develop, the geographic data coupled with the monitoring data will provide information regarding the District area of greatest need. In this manner, as a management tool, the stormwater model helps to meet the requirements of the CWA.

III.J.2 Commercial, Residential, and Federal and District Government Areas

The District is involved in a number of activities which promote stormwater control and quality in commercial, residential, federal and District government areas. These activities include the following:

- Legal and regulatory activities which encourage citizens to use stormwater BMPs on their properties.
- Routine cleaning and maintenance activities related to the property, streets, stormwater catch basins and MS4 system within the District. Focus is on maintaining a beautiful city that is both clean and capable of reducing pollutants that might contribute to not meeting the water quality standard.
- Promotion of BMPs such as functional landscaping, LIDs, and rain leader disconnects which property owners can use to further reduce pollution from their stormwater runoff.

Together these activities seek to control potential pollutants before they enter the MS4 system (through sweeping and catch basin maintenance) and by promoting BMPs that reduce stormwater runoff at the point of entrance to the MS4 system.

III.J.3 Industrial Facilities

The District's management program for controlling stormwater pollution from industrial facilities seeks to encourage DC industries to control pollutants in their waste. Through routine inspections of industries with individual NPDES stormwater permits and monitoring and inspections throughout the District, the District enforces effluent restrictions to the MS4 to meet CWA requirements.

III.J.4 Construction Sites

The District seeks to control stormwater runoff from construction sites through the review of construction plans and the inspection of construction sites.

In the review process, the District is able to work with designers, promote stormwater BMPs, and encourage the use of stormwater quality controls on new and rebuild construction sites. In the long term, the cumulative effect of maintained or decreased levels of impervious land use and installation of stormwater BMPs on a large number of sites will help to decrease the peak runoff rates and pollutants discharged to the District's waterways. In the short term, the use of erosion and sedimentation controls on construction sites will decrease the levels of soils exiting a construction site. Through inspections the District is able to enforce the use of erosion and sedimentation controls so as to better ensure the water quality of runoff from construction sites and monitor the location of increases or decreases of impervious area due to construction.

III.J.5 Flood Control Projects

The District's flood control program acts to maintain existing flood controls on its waterways (Watts Branch and the Potomac River Tidal Basin) and ongoing flood impact programs with FEMA. These activities seek to minimize flooding impacts due to large storm events.

III.J.6 Control of Pollutants from Municipal Landfills or Other Municipal Waste Facilities

There are no municipal landfills within the District. District municipal waste transfer facilities are managed to minimize stormwater impacts and keep up with increasing waste and recyclable loads. By removing the waste materials handled by the facilities, the amount of stormwater runoff pollutants potentially originating from these materials is reduced. In addition, stormwater BMPs (improved paving and drainage systems) installed in the transfer stations minimize pollutants in the runoff from the transfer facilities.

III.J.7 Pesticides, Herbicides, and Fertilizer Applications

The District's SWM program emphasizes control of specific pollutants found typically in herbicides, pesticides and fertilizers. The most effective program activity is proper application of the materials, which is taught through the IPNM program. When the materials are properly applied, the levels of pollutant constituents in the stormwater runoff are reduced.

III.J.8 Deicing Activities

In implementing its deicing program, the District is reducing the amount of salt that is applied to the roadways in order to provide a safe passage for its citizens. These activities directly impact the amount of salt in melted stormwater runoff entering into the MS4 and thereby help to meet the stormwater quality requirements of the CWA.

III.J.9 Snow Removal

In implementing its snow removal program, the District provides a safe passage for its citizens while using deicing materials that provide the minimum impact practicable to the melted stormwater runoff that enters the MS4. These activities directly impact the pollutant constituents in stormwater runoff entering into the MS4 and thereby help to meet the stormwater quality requirements of the CWA.

III.J.10 Illicit Discharges

The District's stormwater pollution control management program for the detection and removal of illicit discharges acts to eliminate illicit discharges of stormwater pollutants. The reduction of stormwater pollutants to the District's waterways helps to meet the water quality standards of the CWA.

III.J.11 Public Education

In urban areas, water pollution occurs when water, moving over land, picks up pollutants such as sediment, bacteria, nutrients, and toxicants and carries them to nearby waters. A cost-effective way to reduce water pollution from this stormwater runoff is by preventing the pollution at the onset. Pollution prevention is more cost effective than remediation. DDOE accepts the premise that most citizens would protect their environment given the correct information. DDOE considers effective environmental education a natural complement to its regulatory functions. Realizing that habits formed early in life are more enduring, the outreach program has a major youth component.

DDOE has raised awareness of point and nonpoint pollution sources in the community and pollution prevention methods through its outreach to educational and community groups. These educational efforts begin with teacher training days, community outreach, and various fairs and festivals in the District. This methodology exposes children at an early age to their impacts on stormwater surface runoff and discharges to the MS4 and District waterways. This effort seeks to develop a pollution prevention mindset and is more cost effective than developing ways of mitigating runoff.

Who to Call if You Have a Watershed or Water Quality Question:

District Agencies

District Department of the Environment (DDOE) 202-535-2600
- Natural Resources Administration 202-535-1660
- Stormwater Management Division 202-535-1722
- Watershed Protection Division
  - Sediment and Stormwater Technical Services Branch 202-535-2240
  - Inspection and Enforcement 202-535-2240
  - Non Point Source Management 202-535-2241
- Water Quality Division 202-535-2190

District Department of Public Works (DPW) 202-673-6833
- Bulk Trash Collection 202-727-1000
- Residential Trash Collection 202-727-1000
- Office of Recycling 202-645-7190

District Department of Transportation 202-673-6813

Inter-District Agencies

Water and Sewer Authority (WASA) 202-787-2000
- Water and Sewer Emergency Hotline 202-612-3400
- Water Quality Division 202-612-3440
- Documents and Permits (for Waterlines) 202-787-2057

APPENDIX A

Memoranda of Understanding

MEMORANDUM OF UNDERSTANDING
BETWEEN THE
DISTRICT DEPARTMENT OF THE ENVIRONMENT
AND THE
DISTRICT DEPARTMENT OF TRANSPORTATION

I. INTRODUCTION

This Memorandum of Understanding ("MOU") is entered into between the District of Columbia Department of the Environment, the buyer agency ("DDOE") and the Department of Transportation, the seller agency ("DDOT"), collectively referred to herein as the "Parties."

Under the Establishment of the District Department of the Environment Act of 2005, the Director of DDOE, or his designee, was made the Stormwater Administrator with primary responsibility for heading the Stormwater Administration of the municipal separate storm sewer system ("MS4"). In furtherance of this task, DDOE has requested the services of DDOT to conduct activities to reduce pollutants to the District of Columbia ("District") under the MS4 National Pollutant Discharge Elimination System Permit issued by the United States Environmental Protection Agency ("MS4 Permit"). This MOU provides the terms under which DDOE and DDOT will administer finances and reimbursements from the Stormwater Permit Compliance Enterprise Fund ("Enterprise Fund") for activities conducted to reduce pollutants to the District under the MS4 Permit.

II. PROGRAM GOALS AND OBJECTIVES

Stormwater discharges from the MS4 are authorized by the MS4 Permit issued to the District as Permittee. In order to reduce stormwater pollution, the MS4 Permit contains a compliance schedule ("MS4 Permit Implementation Plan") which requires the District to compile and submit information regarding pollution sources, significant changes in the identification of storm sewer system outfalls and changes affecting the separate storm sewer system due to land use activities, population estimates, runoff characteristics, structural controls, reporting requirements and other matters.

The MS4 Permit Implementation Plan also includes additional activities to be undertaken by the District. DDOE, DDOT, the District Department of Public Works (DPW), and the District of Columbia Water and Sewer Authority (WASA) have all been assigned activities included in the MS4 Permit Implementation Plan. Pursuant to the Stormwater Permit Compliance Amendment Act of 2000, a task force has been established with representatives from DDOE, DDOT, DPW and WASA to manage the activities required under the MS4 Permit ("MS4 Task Force").

The stormwater management activities required under the MS4 Permit Implementation Plan are supported by fees collected by WASA and credited to the Enterprise Fund. The Stormwater Administrator is authorized to certify the sufficiency of the Enterprise Fund

to meet MS4 Permit budget requests. DDOE and DDOT acknowledge that it may be necessary for some or all parties in the MS4 Task Force to take action to amend, program, reprogram or supplement their respective budgets in order to lawfully undertake activities required by the MS4 Permit, and wish to set forth how these actions will be taken. In the event that all the projects can not be funded, priority will be given to those projects that provide the most benefit in reducing stormwater pollution and can be implemented most expeditiously as determined by DDOE and DDOT.

III. SCOPE OF SERVICES

Pursuant to the applicable authorities and in the furtherance of the shared goals of the Parties to carry out the purposes of this MOU expeditiously and economically, the Parties do hereby agree to administer the Enterprise Fund as follows:

A. RESPONSIBILITIES OF DDOT:

1. DDOT shall submit a proposed budget to the Stormwater Administrator for the following fiscal year no later than six (6) months prior to the beginning of the fiscal year covered by the request.

2. For each activity in the proposed budget, DDOT will provide:

   (a) A description of the activity to be funded;

   (b) The MS4 Permit Implementation Plan reference for the activity;

   (c) The MS4 Permit section reference for the activity;

   (d) An explanation that the activity is above and beyond stormwater activities carried out by the agency prior to April 20, 2000;

   (e) A cost-benefit discussion including which pollutants are targeted for reduction by this activity, the estimated reduction per year to be achieved, and the estimated cost/pound of pollutant removed over the life of the project/activity; and

   (f) A statement of whether the agency's proposed budget contains sufficient funds expressly dedicated to all MS4 Permit compliance activities.

3. DDOT shall submit a report of the activity when completed, including:

   (a) A description of the activity performed;

   (b) Certification that all expenditures submitted for reimbursement are for direct MS4 Permit compliance activities above and beyond

stormwater activities carried out by the agency prior to April 20, 2000 and as detailed in Attachment A attached hereto and made a part hereof;

(c) The citation of the MS4 Permit section(s) reference for the activity;

(d) A description of which pollutants were targeted for reduction by the activity; and

(e) Copies of invoices and other applicable documentation demonstrating the implementation of the MS4 relevant activity.

B. RESPONSIBILITIES OF DDOE:

1. The Stormwater Administrator shall review and approve programmatic changes or modifications to the activities listed in the budget request.

2. The Stormwater Administrator may request additional information from DDOT to justify the activity.

3. The Stormwater Administrator shall approve DDOT's proposed budget, and authorize the transfer of funds from DDOE to DDOT for the expenditures by DDOT for the activities listed in Attachment A. Approval of funds transmitted is subject to total approved budget limits, as well as cash or revenues available in the Enterprise Fund.

4. In the event of a budget shortfall in the Enterprise Fund, the Stormwater Administrator shall allocate funds giving priority to the projects that he or she determines would provide the most benefit in reducing stormwater pollution. If the Stormwater Administrator determines that the projected fiscal year's revenues from the Enterprise Fund will be less than the anticipated costs of DDOT's proposed budget, the Stormwater Administrator may request that DDOT make up the difference.

5. The Stormwater Administrator may request supporting documentation, if necessary, to evaluate the status of the activities, or to detail how the activities will address the overall MS4 Permit Implementation Plan.

IV. DURATION OF MOU

A. The period of this MOU shall be from October 1, 2008, through September 30, 2009, unless terminated in writing by the Parties prior to the expiration.

B. The Parties may extend the term of this MOU by exercising a maximum of five (5) one-year option periods. Option periods may consist of a year,

a fraction thereof, or multiple successive fractions of a year. DDOE shall provide notice of its intent to renew an option period prior to the expiration of the MOU.

C. The exercise of an option period is subject to the availability of funds at the time of the exercise of the option.

V. AUTHORITY FOR MOU

1. D.C. Official Code § 1-301.01(k).

2. D.C. Official Code § 34-2202.06a-b.

3. D.C. Official Code § 8-151.03(b)(2).

VI. FUNDING PROVISIONS

A. COST OF SERVICES

1. Total cost for goods and services under this MOU shall not exceed Two Million Seven Hundred Thousand Dollars ($2,700,000.00) for Fiscal Year 2009 ("FY09"). Funding for the goods and services shall not exceed the actual cost of the goods and services based on the proposed budget in Attachment A.

2. In the event of termination of the MOU, payment to DDOT shall be held in abeyance until all required fiscal reconciliation, but not longer than September 30 of the current fiscal year.

B. B. PAYMENT

1. Payment shall be made through an Intra-District advance by DDOE to DDOT based on the total amount of this MOU, and shall be treated as capital funds allocated to DDOT.

2. DDOT shall submit quarterly reconciliations prior to the end of the Fiscal Year covered under this MOU which shall explain the amounts charged for that period. The invoices shall include copies (1) list of materials and their costs; (2) Labor costs including hourly rates for all labors, (3) reasonable overhead, and (4) applicable documentation demonstrating MS4 relevant work.

3. Advances to DDOT for the services to be performed/goods to be provided shall not exceed the amount of this MOU.

4

4. DDOT will relieve the advance and bill DDOE through the Intra-District process only for those goods or services actually provided pursuant to the terms of this MOU. Any unobligated funds will be returned to DDOE's capital budget.

5. The Parties' Directors or their designees shall resolve all adjustments and disputes arising from services performed under this MOU. In the event that the Parties are unable to resolve a financial issue, the matter shall be referred to the D.C. Office of Financial Operations and Systems.

C. ANTI-DEFICIENCY CONSIDERATIONS

The Parties acknowledge and agree that their respective obligations to fulfill financial obligations of any kind pursuant to any and all provisions of this MOU, or any subsequent agreement entered into by the parties pursuant to this MOU, are and shall remain subject to the provisions of (i) the federal Anti-Deficiency Act, 31 U.S.C. §§1341, 1342, 1349, 1351, (ii) the District of Columbia Anti-Deficiency Act, D.C. Official Code §§ 47-355.01-355.08 (2001), (iii) D.C. Official Code § 47-105 (2001), and (iv) D.C. Official Code § 1-204.46 (2006 Supp.), as the foregoing statutes may be amended from time to time, regardless of whether a particular obligation has been expressly so conditioned.

VII. COMPLIANCE AND MONITORING

As this MOU is funded by District of Columbia funds, DDOT will be subject to scheduled and unscheduled monitoring reviews to ensure compliance with all applicable requirements.

VIII. RECORDS AND REPORTS

DDOT shall maintain records and receipts for the expenditure of all funds provided for a period of no less than three years from the date of expiration or termination of the MOU and, upon the District of Columbia's request, make these documents available for inspection by duly authorized representatives of the DDOE and other officials as may be specified by the District of Columbia at its sole discretion.

IX. CONFIDENTIAL INFORMATION

The Parties to this MOU will use, restrict, safeguard and dispose of all information related to services provided by this MOU, in accordance with all relevant federal and local statutes, regulations, policies. Information received by either Party in the performance of responsibilities associated with the performance of this MOU shall remain the property of the buyer agency.

X. TERMINATION

Either Party may terminate this MOU in whole or in part by giving 30 calendar days advance written notice to the other Party.

XI. NOTICE

The following individuals are the contact points for each Party under this MOU:

Julia Evans, P.E.
Environmental Engineer
District Department of the Environment
51 N Street NE, Room 5001-J
Washington, DC 20002
Phone 202-724-5348
Fax 202- 535-1364

Jeffrey Seltzer, P.E.
Supervisory Civil Engineer
District Department of Transportation
64 New York Avenue, NE
Washington, DC 20002
Phone 202-671-4607
Fax 202- 671-4710

XII. MODIFICATIONS

The terms and conditions of this MOU may be modified only upon prior written agreement by the Parties.

XIII. PROCUREMENT PRACTICES ACT

If a District of Columbia agency or instrumentality plans to utilize the goods or services of an agent or third party (e.g., contractor, consultant) to provide any of the goods or services specified under this MOU, then the agency or instrumentality shall abide by the provisions of the District of Columbia Procurement Practices Act of 1985 (D.C. Official Code § 2-301.01 *et seq.*) to procure the goods or services of the agent or third party.

XIV. MISCELLANEOUS

The Parties shall comply with all applicable laws, rules and regulations whether now in force or hereafter enacted or promulgated.

Signatures on Next Page.

IN WITNESS WHEREOF, the Parties hereto have executed this MOU as follows:

DISTRICT DEPARTMENT OF THE ENVIRONMENT

George S. Hawkins
Director

Date: 3/11/09

Bicky Corman, Esq.
General Counsel

Date: 3/16/09

Robert Jose
Chief Financial Officer

Date: N/A

DISTRICT DEPARTMENT OF TRANSPORTATION

Gabe Klein
Acting Director

Date: 2/27/09

George Dines
Associate Chief Financial Officer

Date: 2/13/2009

OFFICE OF CONTRACTING AND PROCUREMENT

David P. Gragan, CPPO
Chief Procurement Officer

Date 3/19/09

Project	Description	Cost Type	comment	FY09 Enterprise Funding Forecast Oct08
LID Projects				
NHB LID	FY08: LID Design for Nannie Helen Burroughs; FY09: Pre Construction Monitoring by Howard U (DDOT match to EPA grant $65K), Construction for first phase (46th St. to Division Ave starting Apr09 ($200K)	Reimburse Capital Project	Non-Fed portion	$265,000
Watts Branch Bike Trail BMPs	DDOT recently initiated construction of the Watts Branch Bicycle Trail. A portion of the project will remove paved surfaces and install BMPs. Total cost of the construction is $3.1 Million. **Status:** Designs for two sites completed FY08; site at 44th & Grant has utility conflicts; site at 49th & NHB moved to NHB btw. 48th & 49th, to be constructed with NHB project		FY09 funding for construction of one Bioretention on NHB btw. 48th & 49th.	$ 160,533
Nebraska Ave	Construction started in Sept08, Design modifications to add Two Bioretention swales along north side of Nebraska between Stephenson & Oregon and one bioswale at Triangle intersection at Oregon			$ 150,000
East Beach Drive	1000 LF roadway runoff directed to roadside right of way (ROW) through curbcuts; Install vegetated areas instead of rip-rap			$ 150,000
I-295 Vegetated Swale	2100 LF bioswale as alternative to rip-rap plan in highway median to slow runoff			$ 310,800
LID Pilot Projects Design	Design of LID Pilot Projects, including Bumpouts, Curb cuts, Vegetated swales, Stormwater planters, & Triangle parks; **Potential Locations:** 4000 Q St. SE. (intersection of Ft. Dupont; outside Ft. Davis Park), 56th & Eads Sts. - 56th & Foote Sts. NE. (ROW/Drew Elementary School), 60th & Clay NE, 44th & Hayes Sts. NE, 47th & Foote Sts. NE, 4200 Grant St. NE. (alleyway between Grant & Gault Sts.)			$ 150,000
LID Pilot Project Construction	Installation of LID Pilot Projects (10 projects @ $50K each)			$ 500,000
Green Alley Pilot Projects	**Potential Locations:** 1) Clay Street Alley NE, between 60th and 61st St NE and bordering Watts Branch Stream. 2) Convert 49th Street Alley, Watts Branch; 3) Ashley Terrace NW (Rock Creek); 4) V St. & Park Place SE; 5) 44th NE, Hayes, & Gault	Reimburse Capital Project		$ 200,000
Other				
Tree Planting	UFA MS4 Plantings	Reimburse Capital Project - UFA		$ 300,000
WQ Catch Basin Monitoring	DDOT is continuing its monitoring efforts to assess the performance of several water quality (WQ) catch basins and other BMP structures installed around the District. The monitoring is done as part of a pilot test project to determine maintenance requirements and the efficiency of those structures in reducing pollution from storm water runoff. DDOT plans to complete the WQ catch basin pilot tests by the end of FY 2007. In FY 2008, the test results will be assessed by WASA, DDOE and DDOT. The selected structures will be made part of DDOT Design and Construction Standards for implementation in all DDOT's projects. DDOT will follow the industry's standard monitoring protocol in its monitoring efforts of WQ catch basins, which depends on specific occurences of rain events. DDOT's monitoring efforts were initiated following a consensus agreemnt arrived at during a December 16, 2002 meeting held at DDOT, where DDOT, DOH, and WASA entered into a joint agreement that all new catch basins will be designed and constructed with WQ BMP design principles.	Reimburse Grant Program	Project completed and draft report delivered 9/17/08; Revision expected Jan09	$212,167

DDOT MS4 Staff Support				
	Salaries - Includes four (4) storm water engineers and one (1) landscape architect responsible for reviewing public and private right-of-way (ROW) projects to assure appropraiate design and inclusion of storm water quality features such as LID and water quality catch basins. Additionally, staff evaluates public space for potential LID projects, assists DDOT facilities in meeting NPDES requirements, manages consultants and contractors for design, construction, mainentance and monitoring of LID/BMP sites. Staff time only charged when working on MS4 water quality issues.	Operating Cost - reimburse Culvert Account		$ 300,000
Training	Training - LID Conference			$ 1,500
TOTAL Costs				
	Total Projects			$ 2,398,500
	Total Staff Support			$ 301,500
	TOTAL MS4 Annual FORECAST			$ 2,700,000

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DISTRICT DEPARTMENT OF THE ENVIRONMENT
AND
THE DISTRICT DEPARTMENT OF PUBLIC WORKS
REGARDING MS4 STORMWATER PERMIT FISCAL ADMINISTRATION
AMENDMENT

Section I.6 of the MOU between DPW and DDOE, dated August 1, 2007, is amended to specify the amount to be reimbursed by DDOE to DPW from the FY 2009 MS4 budget and to identify the budget priorities.

SECTION I.6: Delete item 6 on page 4 and replace with the following text:

For FY 2009, the Storm Water Administrator shall administer the Storm Water permit compliance fund as follows:

Department of Public Works .....$ 800,000

Reimbursement shall only be approved for the activities listed below. The total amount shall be used to conduct the following activities in the priority indicated below:

Activity	Amount	Priority
Phase II Street Sweeping Report (Logistics Study). As stated in the Phase I Report, the Logistic Study shall include the new enhanced routes for the MS4 and a strategy for coordinating catch basin cleaning and street sweeping. DDOE shall receive the 65% draft report for comment prior to reimbursement.	250,000	1
Hazardous waste collection from permanent DPW drop-off facilities (Fort Totten and Benning Road).	250,000	2
Public Education (leaf collection brochures and Sweepcams for MS4 route sweepers). All brochures shall include the DDOE logo.	200,000	3
Operation and Maintenance of MS4 fleet.	100,000	4
Total Amount	800,000	

Reimbursement shall only be approved for the activities listed below.

DISTRICT DEPARTMENT OF THE ENVIRONMENT

12/12/08

George S. Hawkins, Director — Date

12/12/08

Bernice I. Corman, General Counsel — Date

DISTRICT DEPARTMENT OF PUBLIC WORKS

2-12-2009

William O. Howland, Jr. Director — Date

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DISTRICT DEPARTMENT OF THE ENVIRONMENT
AND
THE OFFICE OF PROPERTY MANAGEMENT
AMENDMENT

The District Department of the Environment (DDOE) and the Office of Property Management (OPM) hereby amend the above referenced MOU to identify the activities to be funded and to increase the amount to be reimbursed by DDOE to OPM in the FY 2009 MS4 budget. The MOU is hereby modified as follows:

I. SECTION III.B.4.

Delete text of Section III.B.4. and replace with the following text:

In FY 2009, the Stormwater Administrator shall fund the activities identified below:

Activity	Fund Amount
Design and install 92,000 square feet of green roofs at the University of the District of Columbia (UDC) located at 4200 Connecticut Avenue, NW. on UDC buildings 38, 39, 44, 52, 46, and 47.	$1,104,000
Secure bids for the addition of a green roof component to two OPM new constructions projects - the Consolidated Forensic Laboratory, with a greenroof footprint of 30,000 square foot, and the Department of Employment Services , with a greenroof footprint of 24,360 square foot	$200,000
Total amount	$1,304,000

II. SECTION III.B.5:

Replace the listed amount of $500,000 with $1,304,000.

III SECTION VI.A.1

Replace the listed amount of $500,000 with $1,304,000.

All other terms and conditions of the MOU shall remain the same.

IN WITNESS WHEREOF, the Parties hereto have executed this Amendment as follows:

DISTRICT DEPARTMENT OF THE ENVIRONMENT

George S. Hawkins, Director — Date 7/30/09

Bernice I. Corman, General Counsel — Date 7/30/09

OFFICE OF PROPERTY MANAGEMENT

Robin-Eve Jasper, Director — Date 4/27/09

for Andree Chan-Mann, Agency Fiscal Officer — Date 4/29/09

DLC 04/29/09

OFFICE OF CONTRACTING AND PROCUREMENT

David P. Gragan, CPPO
Chief Procurement Officer — Date 8/10/09

Post-it® Fax Note 7671	Date	# of pages ▶ 3
To Susan	From Tina Eisma	
Co./Dept.	Co.	
Phone #	Phone #	
Fax #	Fax # 727-9877	

MEMORANDUM O
BET
THE DISTRICT DEPARTMEN
THE DISTRICT OFFICE OF PROPERTY MANAGEMENT

I. INTRODUCTION

This Memorandum of Understanding (MOU) is entered into between the District of Columbia Department of the Environment (DDOE) and the Office of Property Management (OPM), collectively referred to herein as the "Parties."

DDOE requires OPM to integrate green roof projects to manage storm water runoff from District properties managed by OPM in support of the District's municipal separate storm sewer system (MS4) National Pollutant Discharge Elimination System (NPDES) Permit (MS4 Permit).

II. PROGRAM GOALS AND OBJECTIVES

MS4:	Municipal Separate Storm Sewer System
NPDES:	National Pollutant Discharge Elimination System
MS4 Permit:	Municipal Separate Storm Sewer System Permit
EPA:	Environmental Protection Agency

This MOU is entered into by and between DDOE and OPM to transfer funds to implement green roofs projects from the FY 2009 MS4 fund to reduce storm water pollutants to the District of Columbia, under the municipal separate storm sewer system (MS4) National Pollutant Discharge Elimination System (NPDES) Permit (MS4 Permit):

WHEREAS, storm water discharges from the municipal separate storm sewer system (MS4) are authorized by the National Pollutant Discharge Elimination System (NPDES) Permit Number: DC0000221 issued to the District of Columbia as Permittee;

WHEREAS, on August 19, 2004, the Environmental Protection Agency (EPA) re-issued the District's MS4 Permit Number: DC0000221 to authorize storm water discharges to the District of Columbia as Permittee, for a five-year term;

WHEREAS, the MS4 Permit contains a compliance schedule which requires the District of Columbia to compile and submit information on pollution sources, significant changes in the identification of storm sewer system outfalls, and changes affecting the separate storm sewer system due to land use activities, population estimates, runoff characteristics, structural controls, reporting requirements and other matters as outlined in the MS4 Permit Implementation Plan, in order to reduce storm water pollution;

WHEREAS, the MS4 Permit outlines additional activities to be undertaken by the District;

WHEREAS, the District Department of Environment (DDOE), the Office of Property Management (OPM), District Department of Transportation (DDOT), District Department of Public Works (DPW), and District of Columbia Water and Sewer Authority (WASA) have been assigned activities in the MS4 Implementation Plan;

WHEREAS, the MS4 Task Force has been established with representatives from DDOE, OPM, DDOT, DPW and WASA to manage the activities required in the MS4 Permit, pursuant to the "Storm Water Permit Compliance Amendment Act of 2000"; D.C. Official Code § 34-2202.06a;

WHEREAS, the Director of DDOE, or his designee, was made the Storm Water Administrator with primary responsibility for heading the Storm Water Administration, pursuant to the Establishment of the District Department of the Environment Act of 2005, D.C. Official Code § 8-151.03(b)(2);

WHEREAS, the storm water management activities in the Implementation Plan are supported by fees collected by WASA in a Storm Water Compliance Enterprise Fund and provided to DDOE for the Storm Water Administrator to certify the sufficiency of the MS4 Permit budget requests;

WHEREAS, DDOE and OPM acknowledge that it may be necessary for some or all parties in the MS4 Task Force to take action to amend, program, reprogram or supplement their respective budgets in order to lawfully undertake activities required by the MS4 permit and wish to set forth how these actions will be taken; and

NOW THEREFORE, in consideration of the promises mutually exchanged, the receipt and sufficiency of which are acknowledged by DDOE and OPM both agree to administer the Storm Water Permit Compliance Enterprise Fund (Storm Water Fund) as follows:

III. SCOPE OF SERVICES

Pursuant to the applicable authorities and in the furtherance of the shared goals of the Parties to carry out the purposes of this MOU expeditiously and economically, the Parties do hereby agree:

A. RESPONSIBILITIES OF OPM:

1. OPM shall submit a proposed budget for the following fiscal year to the Storm Water Administrator by October 1 of each calendar year.

Accordingly, as of this signing, OPM submitted their proposed 2009 Fiscal Year Budget Request to the Storm Water Administrator by May 30, 2008. The Storm Water Administrator will use this information to program budget authority from the Storm Water Fund. Acceptance of this summary by the Storm Water Administrator does not constitute approval of the expenditure, but rather general agreement that activities of this type may be paid for through use of the Enterprise Fund.

2. OPM shall submit a detailed list of projects to be funded from the Storm Water Fund budget to the Storm Water Administrator no later than six-months prior to the beginning of the fiscal year covered by that request. The Storm Water Administrator will review and approve budget requests for the potential projects prior to transferring budget authority from DDOE's annual budget for the expected expenditures. For each activity included in the budget request OPM will detail:

   (a) A description of each green roof project to be funded;

   (b) A copy of the architectural and engineering plan for the green roofs to be constructed, indicating square footage and type of green roof;

   (c) Maintenance schedule for each green roof project as recommended by manufacturer. .

B. RESPONSIBILITIES OF DDOE:

1. The Storm Water Administrator may request additional information from OPM to justify the project or activity. Approval of the detailed budget request referenced in section A above by the Storm Water Administrator is pre-approval for transfer of budget authority from DDOE to OPM for the expenditures conducted by OPM for the approved project or activity.

2. The Storm Water Administrator shall review and approve all programmatic changes or modifications that might affect the estimated quantity of pollutants removed or the cost-benefit analysis of the project or activity.

3. In the event of a budget shortfall, the Storm Water Administrator shall allocate remaining funds giving priority to the projects that he or she determines would provide the most benefit in reducing storm water pollution. In the event that the Storm Water Administrator determines that the projected fiscal years revenues from the Storm Water Fund will be less than the anticipated costs of the Storm Water

Administration, the Storm Water Administrator may request that OPM make up the difference. OPM's obligation to pay the difference between the costs of the Storm Water Administration and the revenues from the Storm Water Fund is subject to future written approval by OPM and appropriation of necessary funds.

4. For FY 2009, the Storm Water Administrator shall administer the Storm Water Permit Compliance Enterprise Fund by providing funds as follows:

   Office of Property Management $500,000

5. Payment for the MS4 agreement shall be made through an Intra-District advance by DDOE to OPM in the amount stated above, $500,000. OPM shall submit bi-annual reconciliations which shall explain the amounts charged for that period. Advances to OPM shall not exceed the amount stated in the MOU. The reconciliations shall include:

   (a) Description of the activity performed;

   (b) Certification that all expenditures submitted for reimbursement are for direct MS4 permit compliance activities above and beyond storm water activities carried out by the agency prior to April 19, 2000;

   (c) Citation of the MS4 Permit section(s) reference for the activity;

   (d) Description of which pollutants were targeted for reduction by the project/activity; and

   (e) Copies of invoices and other applicable documentation demonstrating MS4 relevant work. Documentation to include invoices outlining storm water-related tasks completed, including description of task, hours incurred including date and time.

6. The Storm Water Administrator may request additional supporting documentation, if necessary, to evaluate the reconciliation or to detail how the activity addresses the overall Implementation Plan.

7. The Storm Water Administrator's Budget Authority transmittal is subject to total approved budget limits as well as cash or revenues available in fund.

8. Budget Authority approved by the Storm Water Administrator will be submitted within five business days of approval.

9. Any funds remaining in the MS4 Storm Water Compliance Enterprise Fund at the end of the fiscal year are to be redistributed to the member agencies of the MS4 Task Force based on need and projects that are ready to implement.

IV. DURATION OF MOU

A. The period of this MOU shall be from October 1, 2008, through September 30, 2009, unless terminated in writing by the Parties prior to the expiration.

B. The Parties may extend the term of this MOU by exercising a one-year option period. Option periods may consist of a year, a fraction thereof, or multiple successive fractions of a year. DDOE shall provide notice of its intent to renew an option period prior to the expiration of the MOU.

C. The exercise of an option period is subject to the availability of funds at the time of the exercise of the option.

V. AUTHORITY FOR MOU

The Parties are authorized to enter into this MOU pursuant to D.C. Official Code § 1-301.01(k).

VI. FUNDING PROVISIONS

A. COST OF SERVICES

1. Total cost for services under this MOU shall not exceed $500,000 for Fiscal Year 2009. Funding for the services shall not exceed the actual cost of the goods or services, **based on the actual cost spent by OPM and as reported in the bi-annual reconciliations.**

2. In the event of termination of the MOU, payment to OPM shall be held in abeyance until all required fiscal reconciliation, but not longer than September 30 of the current fiscal year.

B. PAYMENT

1. Payment for all of the goods and services shall be made through an Intra-District advance by DDOE to OPM based on the total amount of this MOU.

2. OPM shall submit itemized invoices for each completed service request, or monthly/quarterly reconciliations which shall explain the amounts billed for that period. The invoices shall include: (a) List of materials and their costs; (b) labor costs including hourly rates for all laborers and (c) reasonable overhead OR Itemized monthly claims for reimbursement on actual counts taken daily at the point of service by the reimbursement category.

3. Advances to OPM for the services to be performed/goods to be provided shall not exceed the amount of this MOU.

4. OPM will relieve the advance and bill DDOE through the Intra-District process only for those goods or services actually provided pursuant to the terms of this MOU. OPM will return any excess advance to DDOE by September 30 of the current fiscal year.

5. The Parties' Directors or their designees shall resolve all adjustments and disputes arising from services performed under this MOU. In the event that the Parties are unable to resolve a financial issue, the matter shall be referred to the D.C. Office of Financial Operations and Systems.

C. ANTI-DEFICIENCY CONSIDERATIONS

The Parties acknowledge and agree that their respective obligations to fulfill financial obligations of any kind pursuant to any and all provisions of this MOU, or any subsequent agreement entered into by the parties pursuant to this MOU, are and shall remain subject to the provisions of (i) the federal Anti-Deficiency Act, 31 U.S.C. §§1341, 1342, 1349, 1351, (ii) the District of Columbia Anti-Deficiency Act, D.C. Official Code §§ 47-355.01-355.08 (2001), (iii) D.C. Official Code § 47-105 (2001), and (iv) D.C. Official Code § 1-204.46 (2006 Supp.), as the foregoing statutes may be amended from time to time, regardless of whether a particular obligation has been expressly so conditioned.

VII. COMPLIANCE AND MONITORING

As this MOU is funded by District of Columbia funds, OPM will be subject to scheduled and unscheduled monitoring reviews to ensure compliance with all applicable requirements.

VIII. RECORDS AND REPORTS

OPM shall maintain records and receipts for the expenditure of all funds provided for a period of no less than three years from the date of expiration or termination of the MOU and, upon the District of Columbia's request, make these documents available for inspection by duly authorized representatives of the buyer agency and other officials as may be specified by the District of Columbia at its sole discretion.

IX. CONFIDENTIAL INFORMATION

The Parties to this MOU will use, restrict, safeguard and dispose of all information related to services provided by this MOU, in accordance with all relevant federal and local statutes, regulations, policies. Information received by either Party in the performance of responsibilities associated with the performance of this MOU shall remain the property of the buyer agency.

X. TERMINATION

Either Party may terminate this MOU in whole or in part by giving 30 calendar days advance written notice to the other Party.

XI. NOTICE

The following individuals are the contact points for each Party under this MOU:

Julia Evans, Environmental Engineer
District Department of the Environment
51 N Street NE, 5th Floor
Room 5001-J
Washington, DC 20002
Phone (202) 724-5348
Fax (202) 535-1364

Susan Riley-Laudadio, Green Building Coordinator
Office of Property Management
441 4th Street, NW – Suite 1000
Washington, DC 20001
Phone (202) 724-4400
Fax (202) 727-9877

XII. MODIFICATIONS

The terms and conditions of this MOU may be modified only upon prior written agreement by the Parties.

XIII. MISCELLANEOUS

The Parties shall comply with all applicable laws, rules and regulations whether now in force or hereafter enacted or promulgated.

IN WITNESS WHEREOF, the Parties hereto have executed this MOU as follows:

DISTRICT DEPARTMENT OF THE ENVIRONMENT

George S. Hawkins
Director

Date: 9/3/08

Bicky Corman, Esq.
General Counsel

Date 8/21/08

Chief Financial Officer

Date 8/27/08

OFFICE OF PROPERTY MANAGEMENT

Robin-Eve Jasper
Acting Director

Date: 7/23/08

Chief Financial Officer

Date: 7/29/08

OFFICE OF CONTRACTING AND PROCUREMENT

David P. Gragan, CPPO
Chief Procurement Officer

Date 9/24/08

8

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DISTRICT DEPARTMENT OF THE ENVIRONMENT
AND
WATER AND SEWER AUTHORITY
REGARDING MS4 STORMWATER PERMIT FISCAL ADMINISTRATION

AMENDMENT

The MOU between WASA and DDOE, dated July 25, 2008, is amended to specify the amount to be reimbursed by DDOE to WASA from the FY 2009 MS4 budget, and to identify the activities to be performed.

SECTION III(A) is amended to add a new section #3, as follows:

3. For FY 2009, WASA shall provide:

a) An updated list of maintenance/cleaning completed on water quality catch basins in the MS4 area by identification number (ID) using the "List of Water Quality Catch Basins" (Attachment A) provided by DDOE as the basis.
b) Conduct cleaning and maintenance of all water quality catch basins located within the MS4 area at least once during FY 2009 or the maximum number allowable by either time or the budget identified under Section III (B)(3) of this addendum. It is estimated that the unit cost is approximately $1200. WASA should provide at least 72 hour notice to DDOE prior to performing the maintenance.
c) Cleaning and maintenance of the water quality catch basins should be conducted in accordance to DDOE standard operating procedure (Attachment B).
d) Invoices for reimbursement for services, as required by Section VI(B)(2), shall also include a report of the date of cleaning, the amount of sediment collected, and the identification number of each water quality catch basin.

SECTION III (B)(3): Delete item 3 and replace it with the following language, to read as follows:

3. For FY 2009, the Stormwater Administrator shall administer the Stormwater Permit Compliance Fund as follows:

Water and Sewer Authority.....$ 264,000

DISTRICT DEPARTMENT OF THE ENVIRONMENT

George S. Hawkins, Director — Date 7/30/09

Bernice I. Corman, General Counsel — Date 7/30/09

WATER AND SEWER AUTHORITY

Avis Marie Russell, Interim General Manager — Date 8/27/09

OFFICE OF CONTRACTING AND PROCUREMENT

for DG

David P.Gragan, CPPO — Date 9/22/09
Chief Procurement Officer

APPENDIX B

Comprehensive Stormwater Management Enhancement Amendment Act of 2008

ENROLLED ORIGINAL

AN ACT

Codification District of Columbia Official Code

2001 Edition

2009 Summer Supp.

West Group Publisher

IN THE COUNCIL OF THE DISTRICT OF COLUMBIA

To amend the District Department of the Environment Establishment Act of 2005 to establish stormwater management programs to reduce the amount of stormwater pollutants that are discharged into District rivers and streams and to collect scientific data on the effects of low impact development on reducing stormwater runoff and the potential for aggressive use of low impact development technologies to reduce the cost and size of any large-scale civil engineering solutions to reducing stormwater pollution of the area's waterways, to expand the authority and responsibilities of the Director of the District Department of the Environment relating to Stormwater Permit compliance and activities, to elevate the Stormwater Permit Compliance Enterprise Fund to the program level and to include fund activities in the Mayor's annual budget, to establish a Stormwater User Fee Discount Program to offer incentives to encourage the installation of innovative stormwater management controls, to provide for the reduction of impervious surfaces in public space, to institutionalize progressive stormwater management practices for District agencies, to expand the membership of the Stormwater Advisory Panel to improve stormwater management coordination between District agencies, and to create limitations on the usage and sale of coal tar pavement product; to amend the Water and Sewer Authority Establishment and Department of Public Works Reorganization Act of 1996 to modify the stormwater user fee structure using a city-wide impervious area methodology, and thereby establish a more accurate and equitable assessment of stormwater runoff generated from properties, and the costs associated with managing that runoff, to provide adequate and stable funding for MS4 permit implementation, to permit owners of properties charged stormwater user fees to contest stormwater user fee bills,, and to require the Mayor to offer financial assistance programs to mitigate the impact of increases in stormwater user fees on low-income residents of the District.

BE IT ENACTED BY THE COUNCIL OF THE DISTRICT OF COLUMBIA, That this act may be cited as the "Comprehensive Stormwater Management Enhancement Amendment Act of 2008".

Sec. 2. The District Department of the Environment Establishment Act of 2005, effective February 15, 2006 (D.C. Law 16-51; D.C. Official Code § 8-151.01 *et seq.*), is amended as follows:

(a) Section 101 (D.C. Official Code § 8-151.01) is amended to read as follows: **Amend § 8-151.01**

"Sec. 101. Definitions.

"For the purposes of this act, the term:

"(1) "CapStat" means an accountability program that examines performance data to improve government services to make the District of Columbia government run more efficiently, using a methodical process for focusing the attention of government representatives on improving performance in priority issues that cross agency boundaries.

"(2) "DDOE" means the District Department of the Environment.

"(3) "Director" means the Director of the District Department of the Environment.

"(4) "Environment" means the physical conditions and natural resources of the District, including the land, air, water, minerals, flora, and fauna in the District, and the waters adjacent to the District.

"(5) "Environmental Management System" or "EMS" means an interagency data system to inventory, track, and report on progress towards performance standards and activities. The term "EMS" includes an adaptive management approach that incorporates planning, implementing, monitoring, evaluating, and adjusting the interagency data system.

"(6) "Impervious area stormwater user fee" or "stormwater user fee" means a fee that attributes the cost of conveying stormwater run-off via a sewer from a given property, to the quantity of stormwater run-off generated from that same property, by use of impervious surface as a surrogate metric.

"(7) "Impervious surface" means a surface area that either prevents or retards the entry of water into the ground as occurring under natural conditions, or that causes water to run off the surface in greater quantities or at an increased rate of flow, relative to the flow present under natural conditions.

"(8) "Low Impact Development" or "LID" means stormwater management practices that mimic site hydrology under natural conditions, by using design techniques in construction and development that store, infiltrate, evaporate, detain, or reuse and recycle runoff.

"(9) "MS4" means the Municipal Separate Storm Sewer System serving approximately two-thirds of the District, and comprised of 2 independent piping systems: one system for sewage from homes and businesses, and one system for stormwater.

"(10) "Natural conditions" means the state of the environment prior to anthropogenic intervention.

"(11) "Primacy" means the grant or delegation of authority under certain federal environmental laws that allows states and the District to assume primary authority to enforce and implement the environmental laws and promulgate regulations pursuant to those laws.

"(12) "SDWA" means the Safe Drinking Water Act, approved December 16, 1974 (88 Stat. 1660; 42 U.S.C. § 300f *et seq*.).

"(13) "Sewer" shall have the same meaning as provided in section 201(9) of the Water and Sewer Authority Establishment and Department of Public Work Reorganization Act of 1996, effective April 18, 1996 (D.C. Law 11-111; D.C. Official Code § 34-2202.01(9))."

"(14) "Stormwater best management practice" means a structure used to reduce the volume or the pollutant content of a stormwater discharge.

"(15) "Stormwater Permit" or "MS4 Permit" means NPDES No. DC0000221, issued April 20, 2000 to the District of Columbia by the Environmental Protection Agency.".

(b) A new Title I-A is added to read as follows:

"TITLE I-A. STORMWATER MANAGEMENT.

"Sec. 151. Stormwater Administration.

"(a) There is established within the District Department of the Environment a Stormwater Administration ("Administration"), pursuant to section 103(b)(2). The Administration shall be responsible for monitoring and coordinating the activities of all District agencies, including the activities of the District of Columbia Water and Sewer Authority ("DC WASA"), which are required to maintain compliance with the Stormwater Permit. The Director shall designate a Stormwater Administrator to manage the Administration.

"(b) The expenses of the Administration shall be disbursed from the Stormwater Permit Compliance Enterprise Fund established pursuant to section 152.

"(c) The District Department of Transportation, the Department of Public Works, the Office of Planning, the Office of Public Education Facilities Modernization, the Office of Property Management, the Department of Parks and Recreation, and DC WASA, and any other District agency identified by the Director ("Stormwater Agencies"), shall comply with all requests made by the Director relating to stormwater related requests, compliance measures, and activities, including the adoption of specific standards, and the submission of information, plans, proposed budgets, or supplemental budgets related to stormwater activities. In coordination with the submission of the report required by subsection (f) of this section, the Stormwater Agencies shall submit annual reports of steps implemented to fulfill or exceed their MS4 Permit obligations, as defined by the Director.

"(d) At least once each fiscal year in a CapStat or comparable session, the Mayor shall review the compliance of the Stormwater Agencies with the requests made by the Director relating to MS4 Permit compliance and activities.

"(e) All budgets submitted by the Mayor to the Council shall include a written determination by the Director of whether the budget adequately funds MS4 Permit compliance and activities. The Director shall inform the Council of any deficiency, and indicate the revisions that shall be made to correct the deficiency.

"(f) The Director shall provide to the Mayor, the Council, and the public, the annual report submitted to the Environmental Protection Agency ("EPA") under the terms of the Stormwater Permit.

"(g) Within one year of the effective date of this section, the Director shall institute an Environmental Management System to inventory, track, and report on pollution prevention and stormwater management activities, and to hold the Stormwater Agencies accountable for progress toward meeting the performance standards and obligations required to meet the stormwater management plan of the Stormwater Permit.

"Sec. 152. Stormwater Permit Compliance Enterprise Fund.

"(a) There is established within the District Department of the Environment a Stormwater Permit Compliance Enterprise Fund ("Enterprise Fund"), pursuant to section 103(b)(2). The Director shall allocate the Fund resources to carry out the MS4 Permit activities that have the greatest impact on reducing stormwater pollution.

"(b) Beginning in fiscal year 2010 and each year thereafter, the Mayor shall propose the Fund with an agency level budget. The Mayor shall submit to the Council, as part of the annual budget, proposed budgets that include expenditures of the Enterprise Fund for stormwater programs, including intra-District funds sufficient to fulfill the MS4 Permit obligations of the Stormwater Agencies. The proposed budgets may include funding for large-scale, multiyear projects. The Mayor shall establish benchmark and performance-measure outcomes that connect stormwater programs with funding levels.

"(c) All revenues, proceeds, and moneys collected from the stormwater user fee or from grants made for stormwater activities that are collected or received, shall be credited to the Enterprise Fund and shall not, at any time, be transferred to, lapse into, or be commingled with the General Fund of the District of Columbia, the Water and Sewer Authority General Fund, the Cash Management Pool, or any other funds or accounts of the District of Columbia.

"(d) Monies from the Enterprise Fund shall only be used to fund the costs of complying with the MS4 Permit, including grants for stormwater activities, all administrative, operating, and capital costs of DC WASA and the agencies identified by the Director as having specific responsibilities under the, MS4 Permit and the Stormwater Administration established pursuant to section 151. The Enterprise Fund shall also be used for DC WASA's costs of billing and collecting the stormwater user fee, as authorized by District of Columbia Public Works Act of 1954, approved May 18, 1954 (68 Stat. 104; D.C. Official Code § 34-2101.01 *et seq*.).

"(e) Monies shall not be disbursed from the Enterprise Fund for costs associated with:

"(1) Stormwater management activities carried out prior to April 20, 2000, except to the extent those costs increased to comply with the terms of the Stormwater Permit; or

"(2) Stormwater management activities otherwise required by law or regulation, unless specifically permitted by the Director.

"(f) Within 90 days of the effective date of this section, the Office of the Chief Financial Officer shall convene quarterly meetings to coordinate with the fiscal officers of the Stormwater Agencies to ensure that each agency can access the Enterprise Fund to implement its activities in a timely manner.

"Sec. 153. Stormwater User Fee Discount Program.

"(a) Within one year of the enactment of an impervious area stormwater user fee by DC

WASA, the Mayor shall establish a Stormwater User Fee Discount Program to be coordinated between DC WASA and the Administration.

"(b) The program shall allow property owners who implement measures to manage stormwater runoff from their properties to receive a discount on the stormwater user fee assessed to them under section 216 of the Water and Sewer Authority Establishment and Department of Public Works Reorganization Act of 1996, effective April 18, 1996 (D.C. Law 11-111; D.C. Official Code § 34-2202.16).

"(c) Stormwater user fee discounts approved by the Mayor shall be retroactive to no earlier than the date of the implementation of the impervious area stormwater fee. A property owner may not qualify for a stormwater user fee discount until the stormwater management measures for which they seek a discount are demonstrated to be fully functional.

"(d) Any discount earned under this section will be revocable upon a finding by the Mayor of non-performance. Upon a finding of non-performance, the Mayor may require reimbursement of any portion of fees discounted to date.

"(e) Findings of non-performance by the Mayor may be appealed by an applicant pursuant to rules established by the Mayor.

"(f) Failure to reimburse may result in a lien being placed upon the property without further notice to the owner. The Mayor may enforce the lien in the same manner as in District of Columbia Public Works Act of 1954, approved May 18, 1954 (68 Stat. 102; D.C. Official Code § 34-2407.02).

"Sec. 154. Stormwater management and Low Impact Development grants.

"(a) The Mayor, in coordination with DC WASA, shall establish a grant program to provide Enterprise Funds for grants and direct services to property owners in the District to employ LID or stormwater best management practices.

"(b) Funding for such grants will be contingent on maintaining adequate Enterprise Funds to address District obligations pursuant to the MS4 Permit.

"(c) Within one year of the effective date of this section, the Director of the Department of Transportation ("DDOT") shall submit to the Director an action plan recommending policies and measures to reduce impervious surfaces and promote LID projects in the public space. The action plan shall incorporate:

"(1) New DDOT policies to reduce impervious surface and employ other LID measures in right-of-way construction projects and retrofit projects;

"(2) A revised DDOT public space permitting process and the development of a mechanism to minimize stormwater runoff from the public right-of-way;

"(3) Requirements and incentives for private developers to reduce impervious surface and employ LID measures when their projects extend into the public right-of-way;

"(4) Policies, including fees, for the use of public space to manage stormwater runoff from private property;

"(5) Policies to address ongoing maintenance of LID or stormwater best management practices installed in public right-of-way areas adjacent to private property;

"(6) Strategies to remove impediments to LID projects on residential properties relating to public space; and

"(7) Costs for each recommendation and a recommended timeline for funding in the Mayor's proposed budget. The Mayor shall incorporate these recommendations in the next and subsequent proposed annual budgets.

"(d)(1) Within one year of the effective date of this section, the Director, together with the Stormwater Agencies, shall prepare a study recommending policies and measures developed to implement LID and stormwater best management practices on District properties. The Mayor shall incorporate these recommendations in the next and subsequent proposed annual budgets.

"(2) For each LID or stormwater best management practice installed, the Mayor shall require a maintenance agreement by District agencies to provide for their ongoing operation and maintenance to ensure installed practices continue to function as designed and installed to provide stormwater pollution reductions.

"(e) The Director shall include among DDOE's public educational efforts a campaign to inform the public on the benefits of preventing pollution from stormwater runoff, and to provide recommendations on how the general public can help keep the District's waterways free of pollution. The Director shall also initiate outreach actions with upstream jurisdictions to encourage their implementation of similar stormwater reduction activities.

"(f) The Director shall work with DC WASA to collect and evaluate scientific data on the effects of low impact development on reducing stormwater runoff to develop a plan for aggressive use of low impact development technologies to reduce the cost and size of any large-scale civil engineering solutions to reducing stormwater pollution of the area's waterways. The Director shall inform the Stormwater Advisory Panel, and representatives of upstream jurisdictions, the Washington Metropolitan Area Transit Authority, and the federal government of the scientific data and analyses drawn from the data.

"Sec. 155. Stormwater Advisory Panel.

"(a) There is established within the District Department of the Environment a Stormwater Advisory Panel ("Panel"), pursuant to section 103(b)(2). The Panel shall coordinate the responsibilities of the agencies and DC WASA, and shall prepare comprehensive recommendations to the Council that identify the best means by which the District can meet or exceed all present and future federal regulatory and permit requirements, pertaining to the discharge of stormwater into receiving waters.

"(b) The Panel shall be comprised of the executive officers with responsibilities pursuant to the MS4 Permit, with oversight responsibility for the administrative and financial aspects of stormwater management, or that engage in activities that impact the District's stormwater discharge:

"(1) The members of the Panel shall be:

"(A) The City Administrator;

"(B) The Chief Financial Officer;

"(C) The Director, who will serve as the Panel's Chair;

"(D) The Stormwater Administrator;
"(E) The Director of the Department of Transportation;
"(F) The Director of the Department of Public Works;
"(G) The Director of the Office of Planning;
"(H) The Director of the Office of Public Education Facilities Modernization;
"(I) The Director of the Office of Property Management;
"(J) The Director of the Department of Parks and Recreation; and
"(K) The General Manager of DC WASA.

"(2) The Director may designate additional members from other agencies whose activities impact the District's stormwater runoff.

"(3) The Director shall engage and encourage participation from representatives of the Washington Metropolitan Area Transit Authority and the federal government, including the U.S. General Services Administration and the National Parks Service.

"(c) The Panel shall hold its first meeting within 90 days of the effective date of this section. The Panel shall hold at least one public hearing to receive testimony from citizens with respect to the issues stated in subsection (e)(1) and (2) of this section.

"(d) The Panel shall meet at least 2 times each year.

"(e) The Panel shall provide its recommendations in the annual report required to be submitted to EPA Region III under the MS4 Permit. The report shall make specific findings on:

"(1) Whether the existing allocation of stormwater management responsibilities among District agencies are capable of fulfilling or exceeding present and future regulatory requirements for stormwater discharge, and if not, what changes need to be made or new government entities created;

"(2) Comprehensive recommendations, specific standards adopted, and steps implemented by the respective agency to fulfill or exceed its obligation to meet its share of federal regulatory and MS4 Permit requirements pertaining to the discharge of stormwater into receiving waters; and

"(3) Whether the existing stormwater user fee structure and rates are equitable and sufficient for the District to fulfill or exceed its present and future regulatory requirements for stormwater discharge, and, if not, what changes in fee structure and rate would be required to fulfill these responsibilities.

"(f) Within one year of the effective date of this section, the Panel shall provide to the Council and the Mayor a study of the needs for achieving water quality compliance from the District's stormwater runoff.

"(g) Panel members shall ensure that their agencies participate in the Environmental Management System to track compliance with the District's MS4 Permit obligations and other stormwater management responsibilities required to reduce pollution to the District's waters.

"(h) Within 120 days after the effective date of this act, the Panel shall establish a Technical Working Group ("TWG") of agency technical staff.

"(1) The TWG shall consist of the following 14 members:

"(A) Each Panel member shall appoint one member of the TWG.

"(B) The Mayor, the Chairman of the Council of the District of Columbia, and the Chairman of the Council committee with oversight over the District Department of the Environment shall each appoint one member; provided, that the appointees shall be non-agency stakeholders who are geographically diverse, and shall have expertise in stormwater management, land development, hydrology, natural resources conservation, environmental protection, environmental law, or other similar stormwater management expertise.

"(2) TWG members shall serve a 2-year term, and without compensation.

"(3) The Chairperson of the TWG shall be the Stormwater Administrator.

"(4) The TWG shall attend monthly meetings with the Stormwater Administrator and coordinate tracking and reporting of stormwater management activities of their agencies' efforts. The TWG shall also:

"(A) Advise the Panel on technical matters and respective agency MS4 Permit compliance requirements;

"(B) Make recommendations to the Panel regarding existing District agency rules, regulations, and policies that might create barriers to the implementation of LID or stormwater best management practices in the District; and

"(C) Suggest programmatic incentives for best management practices which were successfully implemented in other jurisdictions to promote the implementation of these stormwater management practices on new and existing properties in the District.

"(5) DDOE shall provide staff assistance to the TWG.".

(c) A new Title I-B is added to read as follows:

"TITLE I-B. PRODUCT LIMITATION OF STORMWATER MANAGEMENT.

"Sec. 181. Coal tar limitations.

"(a) For the purposes of this section, the term "coal tar pavement product" means a material that contains coal tar and is for use on an asphalt or concrete surface, including a driveway or parking lot.

"(b) No person shall sell, offer for sale, use, or permit to be used, on property he or she owns, a coal tar pavement product.

"(c)(1) Any person who violates this section shall be liable to the District for a civil penalty in an amount not to exceed $ 2,500 for each violation.

"(2) For any violation, each day of the violation shall constitute a separate offense and the penalties prescribed shall apply separately to each offense.

"(3) Adjudication of any infraction of this section shall be pursuant to the Department of Consumer and Regulatory Affairs Civil Infractions Act of 1985, effective October 5, 1985 (D.C. Law 6-42; D.C. Official Code § 2-1801.01 *et seq*.).

"(d) This section shall apply as of July 1, 2009.".

Sec. 3. The Water and Sewer Authority Establishment and Department of Public Works Reorganization Act of 1996, effective April 18, 1996 (D.C. Law 11-111; D.C. Official Code § 34-2201.01 *et seq.*), is amended as follows:

Amend § 34-2202.01

(a) Section 201(9A) and (9B) (D.C. Official Code § 34-2202.01(9A) and (9B)) are repealed.

Repeal §§ 34-2202.06a, 34-2202.06b, 34-2202.06c

(b) Sections 206a, 206b, and 206c (D.C. Official Code §§ 34-2202.06a, 34-2202.06b, and 34-2202.06c) are repealed.

Amend § 34-2202.16

(c) Section 216 (D.C. Official Code § 34-2202.16).is amended as follows:

(1) Subsections (d-1) through (d-3) are amended to read as follows:

"(d-1) The Authority shall collect a stormwater user fee established by the Director of the District Department of the Environment ("Director"), which charge the Director shall establish by rule and may from time to time amend.

"(d-2) The fee shall be collected from each property in the District of Columbia, and shall be based on an impervious area assessment of the property.

"(d-3) The Mayor shall coordinate the development and implementation of the MS4 stormwater user fee with DC WASA's impervious area surface charge, to ensure that both fee systems employ consistent methodologies.".

(2) New subsections (d-4), (d-5), (d-6), and (d-7) are added to read as follows:

"(d-4) The Mayor shall offer financial assistance programs to mitigate the impact of any increases in stormwater user fees on low-income residents of the District, and shall evaluate the applicability of similar existing District low-income assistance programs to the stormwater user fee.

"(d-5) A landlord shall not pass a stormwater user fee charge to a tenant which is more than the stormwater user fee charge prescribed by the Director

"(d-6) The stormwater user fee shall be the obligation of the property owner. Failure to pay the stormwater user fee shall result in a lien being placed upon the property without further notice to the owner. The Mayor may enforce the lien in the same manner as in section 104 of the District of Columbia Public Works Acts of 1954, approved May 18, 1954 (68 Stat.102; D.C. Official Code § 34-2407).

"(d-7) Any owner or occupant of a property that is charged a stormwater user fee may contest a stormwater user fee bill rendered for managing stormwater runoff, according to the same procedures provided to owners or occupants of properties that receive water and sewer services, under section 1805 of the District of Columbia Public Works Act of 1954, effective June 13, 1990 (D.C. Law 8-136; D.C. Official Code § 34-2305).".

Sec. 4. Rules.

Within 180 days of the effective date of this act, the Mayor, pursuant to Title I of the District of Columbia Administrative Procedure Act, approved October 21, 1968 (82 Stat. 1204; D.C. Official Code § 2-501 *et seq.*), shall issue rules to implement the provisions of this act. The proposed rules shall be submitted to the Council for a 45-day period of review, excluding

Saturdays, Sundays, legal holidays, and days of Council recess. If the Council does not approve or disapprove the proposed rules, in whole or in part, by resolution within this 45-day review period, the proposed rules shall be deemed approved.

Sec. 5. Fiscal impact statement.

The Council adopts the fiscal impact statement of the Chief Financial Officer, dated December 15, 2008, as the fiscal impact statement required by section 602(c)(3) of the District of Columbia Home Rule Act, approved December 24, 1973 (87 Stat. 813; D.C. Official Code § 1-206.02(c)(3)).

Sec. 6. Effective date.

This act shall take effect following approval by the Mayor (or in the event of veto by the Mayor, action by the Council to override the veto), a 30-day period of Congressional review as provided in section 602(c)(1) of the District of Columbia Home Rule Act, approved December 24, 1973 (87 Stat. 813; D.C. Official Code § 1-206.02(c)(1)), and publication in the District of Columbia Register.

_____

Chairman
Council of the District of Columbia

_____

Mayor
District of Columbia

APPENDIX C

Master LID Implementation Plan

Facility Address/Site Name	LID Type	Area Treated		Notes	Cooperating Agency
subwatershed		**sq. ft.**	**acres**		
Potomac River					
Completed					
Throughout	Water Quality Catch Basin	22,500	0.52	Five installed; estimate each catch basin drainage area = 300 LF X 15 ft of roadway width	DDOT
Pedestrian ROW between Galena & Dorsett Pl. NW.	Bioswales	6,000	0.14	Replaced paved ROW between properties with grassed swales.	WASA
3610 Brothers St.SE.	RiverSmart Home	3,000	0.07	Homowner incentive program includes up to five LID practices: Shade Tree planting; Lawn replacement w/Native plantings; Rain Barrels; Rain Gardens; Permeable Pavers.	
In Progress					
Consolidated Forensic Lab: 4th & School Sts. SW.	Green roof; Harvest/Reuse System; Curbside Bioretention/Tree Box; Permeable Paving	351,000	8.06	Environmental Flagship development to include State-Of-The-Art Energy efficiancy as well as on-site stormwater management approaches; going for LEED Gold.	OPM/DDOT
South Capital & Atlantic Sts. SW	Green Roof	12,870	0.30	Affordable Housing Project; new construction going for LEED Silver; Intensive & Extensive g. roofs; some available to residents and community.	DHCD/CDC
Potomac Ave. NW	Bioswales	15,000	0.34	Curbless road using existing grassed are for roadside runoff capture/treatment through soil ammendments and plantings as well as in-road cuts to direct runoff.	DDOT
Exploratory					
Q St.& Q Pl. Alley NW	Bioretention	8,000	0.18	Existing 12 ft alleyway closing to all but pedestrian traffic and converting into raingardens. Adjoining properties have signed support documents and files for permission with DDOT; supporting 501C has submitted grant applications to fund project.	DDOT
3901 Tunlaw Rd. NW.	Green Roof	4,200	0.10	Condominium needs to replace flat roof, Association interested in applying for the green subsidy once it is extended to the MS4 area (contact amendment under consideration)	
4001 Calvert St. NW (Stoddard Elementary)				School will under go complete site renovations; discussions under way to incorporate LID; going for LEED Silver.	OPEFM/ DCPS

Facility Address/Site Name	LID Type	Area Treated		Notes	Cooperating Agency
subwatershed		sq. ft.	acres		
Rock Creek					
Completed					
Throughout	Water Quality Catch Basin	22,500	0.52	Five installed; estimate each catch basin drainage area = 300 LF X 15 ft of roadway width	DDOT
1375 Missouri Ave. NW.	Green Roof	33,300	0.76	Extensive system installed on new school addition with flat roof	
East Beech Dr. NW.	Bioretention; Bioswales	15,000	0.34	1000 LF roadway runoff directed to roadside right of way (ROW) through curbcuts; western side	DDOT
3820 Van Ness Rd. NW.	RiverSmart Home	3,000	0.07	Homowner incentive program includes up to five LID practices: Shade Tree planting; Lawn replacement w/Native plantings; Rain Barrels; Rain Gardens; Permeable Pavers.	
In Progress					
Broad Branch Rd. NW.	Bioretention; Bioswales	30,000	0.69	5000 LF roadway runoff directed to roadside right of way (ROW) through curbcuts; assumes 20% capture	DDOT
Oregon Ave. NW.	Bioretention; Bioswales	36,000	0.83	6000 LF roadway runoff directed to roadside right of way (ROW) through curbcuts; assumes 20% capture	DDOT
Klingle Rd. NW.	Bioretention; Bioswales; Infiltration Trenches; Permeable Paving; Native & Tree Planting	30,000	0.69	Former road being reconstructed as pedestrian path with LID throughout	DDOT
UDC Van Ness Campus NW. (Connecticut Ave.)	Green roof; Harvest/Reuse System; Curbside Bioretention/Tree Box; Permeable Paving	56,000	1.29	Current brick/concrete plaza over parking garage is leaking and developing structural problems; Scope of Work being defined that includes rebuild of plaza to incorporate Green Roof and other LID technologies to retain on-site 30% more than stormwater permit requires.	OPM/DDOT
1700 Newton St. NW (Bancroft Elementary)	Bioretention; Harvest/Reuse; Permeable Paving	14,200	0.33	Installing cisterns to capture roo runoff and using water to drip irrigate raingardens installed in current lawn area; removing current asphalt, stabilising soils and installing permeable paving. Waiting on contract document signatures. Work to be executed by USDA/NRCS. Abuts NPS land.	OPEFM/DCPS/ NPS/NRCS

Facility Address/Site Name	LID Type	Area Treated		Notes	Cooperating Agency
subwatershed		sq. ft.	acres		
Rock Creek					
Exploratory					
3100 Connecticut Ave. NW.	Green Roof	3,500	0.08	Condominium needs to replace flat roof, Association interested in applying for the green subsidy once it is extended to the MS4 area (contact amendment under consideration)	
Ashley Terrace NW.	Permeable Paving	6600	0.15	Potential Green Alley Site; current errosion and drainage problems investigated based on citizen complant.	DDOT
Klingle Rd. & Cathedral Ave. NW. (Tregaron Site)	Cistern; Bioretention	45,000	1.03	Privately held Historic Gardens open to the public is developing stormwater conservation to capture and reuse ~7000LF roadside runoff for irrigation needs.	DDOT
Tidal Anacostia					
Completed					
4529 Douglas St. NE.	RiverSmart Home	3,000	0.07	Homowner incentive program includes up to five LID practices: Shade Tree planting; Lawn replacement w/Native plantings; Rain Barrels; Rain Gardens; Permeable Pavers.	
Throughout	Water Quality Catch Basin	22,500	0.52	Five installed; estimate each catch basin drainage area = 300 LF X 15 ft of roadway width	DDOT
In Progress					
Hill East WaterfrontDevelopment SE. (Parcel 13)	WQ catchbasins; Green roof; Bioretention; Curbside Bioretention/Tree Box; Infiltration Trenches; Permeable Paving; Harvest/Reuse Systems	2,918,520	67	Redevelopment of DC General Hospital site for housing and commercial use; extending C St. & Massachusettes Ave down to Anacotia River connecting with River Walk; Development will use LID throughout; must meet Anacostia Environmental Standards Act 2008 requiring on-site retention of first 1"-24 hr event and water quality treatment on all releases.	DDOT
Southwest Waterfront Development	WQ catchbasins; Green roof; Bioretention; Curbside Bioretention/Tree Box; Infiltration Trenches; Permeable Paving; Harvest/Reuse Systems	2,047,320	47	Redevelopment of areas around new Baseball Field and Navy Yard will include LID throughout; must meet Anacostia Environmental Standards Act 2008 requiring on-site retention of first 1"-24 hr event and water quality treatment on all releases.	DDOT
Poplar Point Development	WQ catchbasins; Green roof; Bioretention; Curbside Bioretention/Tree Box; Infiltration Trenches; Permeable Paving; Harvest/Reuse Systems	5,662,800	130	Brown Fields to mixed use development will include LID throughout; must meet Anacostia Environmental Standards Act 2008 requiring on-site retention of first 1"-24 hr event and water quality treatment on all releases.	DDOT

Facility Address/Site Name	LID Type	Area Treated		Notes	Cooperating Agency
subwatershed		sq. ft.	acres		
Tidal Anacostia					
In Progress					
11th St Bridge	Water Quality Catch Basins; Bioretention; Infiltration Trenches	420,000	10	2500 LF construction will meet Anacostia Environmental Standards Act 2008	DDOT
South Capitol Bridge	Water Quality Catch Basins; Bioretention; Infiltration Trenches	90,000	2	1500 LF construction will meet Anacostia Environmental Standards Act 2008	DDOT
Anacostia River Walk Trail	Bioretention; Bioswales	9,300	0.21	Includes 900 LF of bioswales and six bioretention sites	DDOT
Kennilworth Ave. NE.	Trash Removal System: In River Device			Mechanical Pipe Collection/Removal System	DDOT
18th St & Good Hope Rd.	Bioretention; Curbside Bioretention/Tree Box; Infiltration Trenches; Permeable Paving			Rebuild of existing library site going for LEED Silver; To manage the 15 yr event on site with Bioretention	DCPL/DDOT
Exploratory					
3650 Ely Pl. SE (John P. Sousa Middle School)	Green roof; Cistern	9,000	0.21	North of Ft. Dupont Park	DCPS/OPEFM
Ft. Dupont					
Completed					
Throughout	Water Quality Catch Basin	45,000	1.03	Ten installed; estimate each catch basin drainage area = 300 LF X 15 ft of roadway width	DDOT
Burns St, & Ridge Rd. SE (next to DCP&R Pool)	Bioretention	95,040	2.18	Ecosite design, Gold Leaf Group constructed, DDOE site inspected, 2-yr maintenance contract out for bid. Modifications included curbcuts, ammended soils, & underdrain. DDOT ROW, abuts NPS.	
Burns St. SE -- Alabama Ave. to Ridge Rd.	Bioretention	29,250	0.67	Ecosite design, Gold Leaf Group constructed, DDOE site inspected, 2-yr maintenance contract out for bid. Modifications included curbcuts, ammended soils, & underdrain. DDOT ROW, abuts NPS .	
3779 Ely Pl. SE (Ice Rink)	Bioretention	108,000	2.48	Ecosite design, Gold Leaf Group constructed, DDOE site inspected, 2-yr maintenance contract out for bid. Modifications included curbcuts, ammended soils & flow deflectors. NPS concession. Parking lot islands.	NPS
Ridge Road SE -- Ft. Davis/ Ridge intersection to G St.	Bioretention	15,080	0.35	Ecosite design, Gold Leaf Group constructed, DDOE site inspected, 2-yr maintenance contract out for bid. Modifications included curbcuts, ammended soils & flow deflectors. Treats half the road. DDOT ROW; abuts NPS.	
Ft. Dupont Drive SE -- Activities Center	Bioretention	53,820	1.24	Ecosite design, Gold Leaf Group constructed, DDOE site inspected, 2-yr maintenance contract out for bid. Modifications included curbcuts, ammended soils & flow deflectors. Parking lot island and easement, NPS concession.	NPS

Facility Address/Site Name	LID Type	Area Treated		Notes	Cooperating Agency
subwatershed		**sq. ft.**	**acres**		
Ft. Dupont					
Exploratory					
V St. & Park Pl. SE. (alleyway)	Permeable Paving	6600	0.15	Potential Green Alley Site; investigated based on citizen interst in LID projects.	DDOT
Alabama Ave. & Burns St. SE intersection	Bioretention; Bioswales; Infiltration Trenches	19,125	0.44	To direct runoff into triangle Burns Rd. requires flow diversion w/ asphalt ridges. Infiltration into exisitng areas along Alabama w/curb cuts.	DDOT
Alabama Ave SE -- Burns St to Massachusetts Ave.	Bioretention; Infiltration Trenches	53,856	1.24	West road side able to accomadate street runoff; requires curbcuts and minor excavation	DDOT
Massachusetts Ave. SE -- Alabama - Minnesota Aves.	Infiltration Trenches	237,600	5.45	Both roadsides able to accomadate street runoff with curb cuts and minor excavation; storm drains available for overflow	DDOT
Ft. Dupont Drive SE -- Activities Center	Bioretention; Bioswales	95,040	2.18	Remove concrete channel in roadside swale; ammend soil; no road alteration required;	NPS
Ft. Dupont Drive SE --Access Road to Refueling Station (Fleet Maintenance)	Bioswales	25,344	0.58	Curb cuts to divert stormwater to exisitng grassy areas along roadside; amend soil and plant for bioretention.	NPS
Ft. Dupont Drive SE --Parking lot outside of Refueling Station	Bioretention; Bioswales; Infiltration Trenches	11,532	0.26	Curb cuts to divert stormwater to exisitng grassy areas along roadside; amend soil and plant for bioretention.	NPS
Pope Branch					
Completed					
Throughout	Water Quality Catch Basin	90,000	2.07	Ten installed; estimate each catch basin drainage area = 300 LF X 15 ft of roadway width	DDOT
3030 G St. SE	Bioretention	14,112	0.32	Theraputic Center front parking lot, 2-yr maintenance contract out for bid, DPR will assume maintenance afterwards	DPR
M Place SE -- Fairlawn and Minnesota Aves.	Bioretention	27,601	0.63	Strong resident support. Good landscaping opportunity for park. In Pope Branch Park. Riparian plantings. 2-yr maintenance contract out for bid. DPR will assume maintenance	DPR
M St. and Fairlawn Ave. SE	Bioretention	27,601	0.63	Curb cuts, ammended soil, under-drain into Pope Branch. 2-yr maintenance contract out for bid. DPR will assume maintenance afterwards	DPR
In Progress					
Pennsylvania Ave. SE	Water Quality CB; Bioretention	432,000	9.92	Great Street Reconstruction; two WQ Catchbasins per block (16 blocks); and three LID sites	DDOT
4000 Q St. SE. (intersection of Ft. Dupont; outside Ft. Davis Park)	Streetside Bioretention (Bumpouts)	18,000	0.41	Demonstration of innovative traffic slowing measures by bottle necking the roadway with bioretention areas placed in parking spaces areas; estimate four bumpouts with ~300 LF each	DDOT
Throughout	RiverSmart Home	240,000	5.51	Pilot Launch: Homowner incentive program includes up to five LID practices: Shade Tree planting; Lawn replacement w/Native plantings; Rain Barrels; Rain Gardens; Permeable Pavers. Anticipate completing 80 homes.	

Facility Address/Site Name	LID Type	Area Treated		Notes	Cooperating Agency
subwatershed		sq. ft.	acres		
Pope Branch					
Exploratory					
3985 Massachusetts Ave SE	Downspout disconnect; Bioretention	18,900	0.43	Dupont Park: 7th Day Adventist Church--bioretention siting: side street, alleyway; excavation, soil ammendment and planting	
3942 Alabama Ave. SE	Bioretention	16,122	0.37	Dupont Park: 7th Day Adventist School parking lot--bioretention siting: side street, alleyway; excavation, soil ammendment and planting	
3456 Pennsylvania Ave SE	Bioretention	24,409	0.56	Ft Davis: Church of Jesus Christ--LID in parking lot. Have a current drainage problem Contact: Darenda Downing & Charlene Belton	
Massachusetts Ave. SE -- Alabama to Minnesota Aves.	Bioretention	237,600	5.45	Road has recently been upgraded. Bioretention cells possible along length of street and at stormdrains; curbcuts; soil ammendments and plantings required.	DDOT
Park border of 34th & 35th St. SE	Plant Shade Trees	estimate 20 trees	0.60	Number of existing storm drains precludes LID. Ranks hign for tree planting.	NPS/Casey Tree
Branch Ave. & O St. SE	Bioretention	24,255	0.56	New curbs just installed, 2 existing catchbasins, requires curb cuts, soil ammendments.	DDOT
O St. & Pennsylvania Ave. SE	Bioretention	15,561	0.36	Upper parking lot 2 bioretention sites possible, asphalt removal, soil ammendment; Maybe a site included in the Pennsylvania Ave Great Street Reconstruction.	DDOT/MPDC
3320 Pennsylvania Ave. SE near Branch Ave.	Bioretention; Permeable Pavement; Infiltration Trenches	58,332	1.34	Large municipal parking lot; bioretention; permeable pavement; soak trenches; Could be part of Great Streets Pennsylvania Ave Project	WASA/DDOT
31st St. & Westover Dr. SE (Good Hope Hill near Pennsylvania Ave.)	Bioretention	34,848	0.80	Capture and treat street stormwater roadside areas; Agency discussions on-going: Steep slopes may require check dams.	DDOT
1650 30th St SE (Randal Highlands Elementary)	Bioretention; Native Planting	22,000	0.51	School adjacent to Pope Branch watershed. Renovations completed. Grassed areas adjacent to parking lot available for bioretention. Community interest. School has not been approached.	DCPS-OPEFM
38th St. & Pennsylvania Ave. SE (near Ft Davis Dr.)	Bioretention; Plant Shade Trees	7,362	0.17	Island area and roadside grassed area; requires curb cuts, soil ammendments and plantings.	DDOT/NPS
1639 - 1651 38th St. SE	Bioretention; Plant Shade Trees	8,928	0.20	Roadside grassed area; requires curb cuts, soil ammendments and plantings could include shade trees.	DDOT/NPS
Ft. Davis Dr. (through Ft Dupont)	Bioretention	99,742.61	2.29	Roadside grassed ROW w/ underdrains; oppportunities for water diversion to excavated areas w/ soil amendments and plantings.	DDOT/NPS
3849 Alabama & Pennsylvania Aves.	Bioretention	27,187.50	0.62	Surface Parking Lot. Existing 8 grass/landscape islands with workable drainage areas; will require excavation, curb cuts, plantings.	DCHS
30th & Massachusetts Ave. SE	Bioretention	50,049	1.15	Current runoff drains to grassy area; ammend soil and plant.	DDOT
No longer feasible					
Pennsylvania Baptist Church parking lot, 3000 Pennsylvania Ave.*	LID in parking lot	45,873	1.05	Connect to drain on O & 30th; Installed Baysaver	

Facility Address/Site Name	LID Type	Area Treated		Notes	Cooperating Agency
subwatershed		**sq. ft.**	**acres**		
Watts Branch					
Completed					
Throughout	Water Quality Catch Basin	90,000	2.07	Twenty installed; estimate each catch basin drainage area = 300 LF X 15 ft of roadway width.	DDOT
In Progress					
Woodson High School NE. & surrounding streets: Arch Drwgs Completed; Demolition started July 2008; Engineering Design In-prog;	Harvest/Reuse system; Green Roof (intensive/extensive); Green Walls; Bioretention; Curbside Bioretention/Tree Box		0.00	Building going for LEED Gold certification; looking for 100 yr event on-site management; innovative demonstartion of harvest reuse for interior low flush tiolets and HVAC systems as well as exterior drip irrigation throughout site; innovative demostration of indoor/outdoor green walls with dedicated harvest reuse irrigation cisterns. Intensive green roof systems with student accesibilty discussing rooftop gardening possiblities.	DCPS/OPEFM
Nannie Helen Burroughs Ave. NE. (NHB): Great Street Reconstruction Project; Water Quality Catchbasins along 7500 LF of roadway; LID where feasible along roadside or in the curbside/treebox area (~13% of drainage area)	Water Quality CB; Bioretention; Curbside Bioretention/Tree Box; Infiltration Trenches; Permeable Paving	370,260	8.50	Great Street Reconstruction Project; Water Quality Catchbasins along 7500 LF of roadway; LID where feasible along roadside or in the curbside/treebox area (~13% of drainage area)	DDOT
56th & Eads Sts. - 56th & Foote Sts. NE. (ROW/Drew Elementary School)	Bioretention	6600	0.15	Dead-end roadway to be retrofitted with LID; Discussions with school to increase drainage area; Curb cuts/ infiltration areas.	OPEFM/DDOT
56th & Clay Sts. NE.	Bioretention	6600	0.15	Dead-end roadway to be retrofitted with LID; Curb cuts/ infiltration areas.	DDOT
44th & Hayes Sts. NE.	Bioetention	6600	0.15	Dead-end roadway to be retrofitted with LID; Curb cuts/ infiltration areas.	DDOT
47th & FooteSts. NE	Bioretention	6600	0.15	LID along curbless section.	DDOT
4200 Grant St. NE. (alleyway between Grant & Gault Sts.)	Bioretention	6,600	0.15	Dead-end roadway to be retrofitted with LID; Curb cuts/ infiltration areas.	DDOT
Exploratory					
Ft. Circle Park: 44th & Hayes & Gault Sts. (alleyway)	Permeable Paving; Infiltration Trench	6,600	0.15	Green Alley site; Existing concrete surface considered for center strip removal and installation of permeable surface; infiltration may help connect existing ravines from disconnected	NPS/DDOT
49th St. & Fitch Pl. NE	Curbside Bioretention/Tree Box; Infiltration Trenches	6,600	0.15	Some trees exist in curb strip, curb strip is narrow, runoff ponds at catchbasin during high rain being considered for curbside bioretention.	WASA/DDOT
55th St. from Dix St. to Clay St. NE	Bioretention (curbside); Infiltration Trenches		0.00	No street trees in curb strips, significant grade on 55th St could direct flow of runoff into curbside treatment area; curbcuts, excavation, soil amendment, plantings required.	UFA/DDOT
58th St. & Blaine St. to 58th St. and Clay St. NE	Bioretention; Infiltration Trenches		0.00	New construction and curbside tree box to the west, open field to east that could be used for raingarden; Agency discussions on-going.	DCHA/DDOT
East Capitol St & Davey St NE (Capitol Heights Metro parking lot)	Bioretention; Infiltration Trenches	65,340	1.50	Good grade, lots of space for infiltration trenches or bioretention	WMATA/DDOT

Facility Address/Site Name	LID Type	Area Treated		Notes	Cooperating Agency
subwatershed		sq. ft.	acres		
Watts Branch					
Exploratory					
Eastern Ave. & Dix St. NE (Intersection)	Bioretention; Infiltration Trenches		0.00	Vacant land on north side of Dix St. could accomadate significant stormwater from Dix and a portion of Eastern Ave. Investigating land titles.	DCHA/DDOT
60th St. & Dix St. NE	Infiltration area		0.00	Currently no curb. Direct street runoff to roadside area.	DDOT
6200 Dix St. NE	Bioretention; Infiltration Trenches		0.00	Direct street runoff to roadside area.	DDOT
Eastern Ave. & Dix St. NE (Intersection)	Bioretention; Infiltration Trenches		0.00	Direct street runoff to roadside area.	DDOT
61st St.& Dix St. NE	Bioretention; Infiltration Trenches		0.00	Direct street runoff to roadside area.	DDOT
58th St. & Dix St. NE	Bioretention		0.00	Abandoned lot could be utilized for bioretention cell. Investigating land title.	DDOT
59th & Foote Sts. NE	Bioretention; Bioswales		0.00	Lot for sale, good slope, LID could be incorporated	DHCD/DDOT
58th & EadsSts. NE.	Bioretention		0.00	Tree boxes; Adjacent to bus stop	UFA/DDOT
44th & Grant Sts. NE.	Bioetention		0.00	Direct street runoff to roadside area.	DDOT
49th St. & NHB Ave. NE.	Bioetention		0.00	Direct street runoff to roadside area.	DDOT
No longer feasible					
Capitol Gateway Estates; 201 58th St NE	Permeable Pavers; Bioretention		2.00	Hope VI quasi public-private demo-rebuild; LID incorporated into new Senior Facility; did no install permeable paver or bioretention as originally designed; installed sand filters	DCHA
Hickey Run					
Completed					
Throughout	Water Quality Catch Basin	22,500	0.52	Five installed; estimate each catch basin drainage area = 300 LF X 15 ft of roadway width.	DDOT
Exploratory					
22nd & Rand Sts. NE.	Curbside Bioretention/Tree Box		0.00	Two tree boxes, NW and SW corners.	UFA/DDOT
24th St. & Rand Pl. NE.	Curbside Bioretention/Tree Box		0.00	Four tree boxes, NW and SW corners, Two inline on each side	UFA/DDOT
R St & Bladensburg Rd. NE.	Bioetention		0.00	SE corner, Biocell possible to treat Bladensburg runoff	
Montana Ave. & Bladensburg Rd. NE. (U-Haul Facility Parking lot)	Bioetention		0.00	Parking lot runoff	

Facility Address/Site Name	LID Type	Area Treated		Notes	Cooperating Agency
subwatershed		sq. ft.	acres		
Hickey Run					
Exploratory					
Montana Ave. NE. (south of 17th St--in front of Willy's Autobody)	Bioetention		0.00	Direct street runoff to roadside area.	DDOT
17th St. NE. (between West Virginia & Montana Aves.)	Bioswales		0.00	Vegetated swale along both sides of street. NO curbs and lots of parked cars causing lots of erosion and sediment loading.	DDOT
17th St. NE. (between West Virginia & Montana Aves.--Police Repair Facility)	Permeable Pavers		0.00	Heavily used parking lot could be retrofited with permeable pavers.	MDP
West Virginia Ave. NE. (between 15th & 17th--in front of cemetary)	Bioetention; Bioswales		0.00	South side of street could incorporate biocell of swale to treat street runoff from W. Virginia	
16th St. & West Virginia Ave. NE.	Bioetention		0.00	Biocell possibe on NE corner of street to capture runoff from parking lot and 16th street	
16th & Okie St NE. (north side near Hechts Building)	Curbside Bioretention/Tree Box		0.00	Two tree boxes on north side of Okie street near 16th.	UFA/DDOT
16th & Okie Sts. NE. (West side between New York Ave.)	Bioetention		0.00	Biocell possible to treat 16th street street runoff and adjacent UNPAVED parking lot runoff.	
New York Ave. NE. (access road International Limousine)	Bioretention		0.00	Biocell along border of parking lot and access road to treat parking lot	
3600 New York Aves. NE. (Washington Times & Distribution Center Parking lot)			0.00	Could be retrofitted with various types of LID	
33rd & V Sts. NE. (USPS Parking Lot)	Bioretention		0.00	Biocell in parking lot	USPS
33rd & Higdoll Sts. NE. (USPS Facility)	Bioretention		0.00	Large parking lot could incorporate biocell in parking lot; also could incorporate large biocell along access road behind USPS, V Street Annex	USPS
31st & Ames Sts. NE. (Metro Employee Parking Lot)	Bioretention		0.00	2 biocells along northern periphery of parking lot in public space, to treat parking lot.	WMATA
31st & Ames, NE corner	Bioretention		0.00	Large biocell possible in public space to treat 31st and Ames St. runoff.	DDOT
21st St. & Queens Chapel Rd. NE. (Teamsters Union Building)	Bioretention		0.00	Parking lot retrofit	
21st St. & Queens Chapel Rd. NE. (Teamsters Union Building)	Curbside Bioretention/Tree Box		0.00	Direct street runoff to treebox area	DDOT
33rd St. NE. (between Adams & Ames Sts.)	Bioretention		0.00	Large biocell in public space to treat Ft. Myers Construction Co, parking lot runoff and 33rd street runoff	DDOT
33rd & Ames Sts. NE.	Bioretention		0.00	Location has no curbs and parked cars are causing heavy erosion, which must be addressed.	DDOT
33rd & Adams Sts. NE. (corner)	Bioretention		0.00	Raised playfield eroding into street, which must be addressed.	DDOT
31st & Adams Sts. NE. (SW corner)	Curbside Bioretention/Tree Box		0.00	Tree box	UFA/DDOT
30th & Channing Sts. NE. (SW corner)	Curbside Bioretention/Tree Box		0.00	Tree box	UFA/DDOT
31st & Douglas Sts. (NW, NE, SW corners)	Curbside Bioretention/Tree Box		0.00	Tree box	UFA/DDOT
South Dakota Ave. & Bladesburg Rd. NE. (Sammy's Liquors)	Bioretention		0.00	Heavy sediment sources in alleys around Sammy's Liquors, which must be addressed. Biocell in parking lot	
Berry St. NE. (dead end)	Bioretention		0.00	Biocell at end of street	DDOT
Apple Road NE. (dead end)	Bioretention		0.00	Biocell at end of street	DDOT
Ft. Lincoln Park NE. (tennis courts & swimming pool parking lots)	Bioretention		0.00	Biocells at both locations possible to treat parking lots	DPR/DDOT

Facility Address/Site Name	LID Type	Area Treated		Notes	Cooperating Agency
subwatershed		sq. ft.	acres		
Hickey Run					
Exploratory					
30th & Evarts Sts. NE.	Curbside Bioretention/Tree Box		0.00	Tree box on NE corner of street.	UFA/DDOT
Evarts Rd. NE. (Western end)	Bioretention		0.00	Biocell at end of street	DDOT
Douglas St. NE. (Western end)	Bioretention		0.00	Biocell at end of street	DDOT
Adams Rd. NE. (Western end)	Bioretention		0.00	Biocell at end of street	DDOT
Bladensburg and Channing Rd. NE. (east side of Bladensburg along periphery of parking lot)	Bioretention		0.00	Biocell to treat parking lot.	DDOT
Bladensburg Rd. & V St. NE. (USPS corner Parking Lot)	Bioretention		0.00	Biocell to treat parking lot.	USPS
Bladensburg Rd. & V St. NE. (Metro Bus repair facility)	Bioretention		0.00	Parking lot could be retrofitted with biocells all along southern periphery	WMATA
Adams St. & Queens Chapel Rd. NE. (DC Govt. Facility)	Bioretention		0.00	Interior parking lots could be retrofitted with biocells in several locations	
Lawrence & Edwin Sts. NE.			0.00	Huge sediment source from construction materials recylcing plant. Catchbasin at Lawrence and Edwin needs to be modified to catch sediment or more drastic measures need to be taken.	DDOT
19th Street NE. (between Bryant & Adams Sts.)			0.00	This location is a huge sediment source. Needs to be repaved and curbs put in.	DDOT
Bryant St. NE. (Far eastern dead end)	Bioretention		0.00	Large biocell could be put in to catch trash, sediment etc.	DDOT
Bryant St. NE. (between 17th & 18th. Sts.)			0.00	North side of street is major sediment source. Slope needs to be stabilized.	DDOT
18th St. & Channing Rd. NE. (East & West sides of 18th. St.)	Curbside Bioretention/Tree Box		0.00	Tree box on each side.	UFA/DDOT
18th St. NE. (Washington Center Home)	Bioretention		0.00	Parking lot could use biocell to treat runoff at south end.	
17th & Downing Sts. NE.	Curbside Bioretention/Tree Box		0.00	Tree box on NW corner.	UFA/DDOT
Channing Rd. NE. (Dead end; east off of 18th St.)	Bioretention		0.00	Biocell at end of street to treat street runoff.	DDOT
17th & Evarts Sts. NE.	Curbside Bioretention/Tree Box		0.00	Tree boxes on NW, SW and SE corner.	UFA/DDOT
24th St & Channing Rd. NE. (along railroad tracks)	Bioretention		0.00	Biocell to collect stormwater at this low corner. Natural springs on this street causing constant seepage.	DDOT/WMATA
Douglas Ave.NE. (eastern end of street near railroad tracks)	Bioretention		0.00	Biocell to collect stormwater at this low corner.	DDOT/WMATA
26th & Evarts Sts. NE.	Bioretention		0.00	Biocell near train tracks to collect street runoff.	DDOT
17th & Franklin Sts. NE.	Curbside Bioretention/Tree Box		0.00	Tree boxes on NW, NE and SW corners.	UFA/DDOT
18th & Franklin Sts. NE.	Curbside Bioretention/Tree Box		0.00	3 in-line tree boxes at SW corner of intersection, and 3 on SE corner, and 2 on each side of catch basin on NW corner.	UFA/DDOT
24th & Franklin Sts. NE.	Curbside Bioretention/Tree Box		0.00	Tree box on SE and SW corner.	UFA/DDOT
20th & Franklin Sts. NE. (Langdon School)	Bioretention		0.00	Biocell along northern side of parking lot.	
18th & Girard Sts. NE.	Curbside Bioretention/Tree Box		0.00	Tree box on NW and SW corner.	UFA/DDOT

Facility Address/Site Name	LID Type	Area Treated		Notes	Cooperating Agency
subwatershed		sq. ft.	acres		
Hickey Run					
Exploratory					
18th & Franklin Sts. NE. (Public Park)	Bioretention		0.00	Two biocells inside park property treating runoff from both Franklin and 18th streets.	
20th St. NE. (between Hamlin & Franklin Sts.)	Bioretention		0.00	Biocell inside park property midway down 20th on western side treating runoff from 20th.	
16th & Girard Sts.	Bioretention		0.00	NW corner, green pubic space could accept a biocell to treat street runoff.	
17th & Girard Sts. NE.	Bioretention		0.00	SW corner public green space could accept biocell to treat street runoff.	
South Dakota Ave. & Bladesburg Rd NE. (Sammy's Liquors)	Curbside Bioretention/Tree Box		0.00	SW corner tree box	UFA/DDOT
Brentwood & 17th Sts. NE.	Curbside Bioretention/Tree Box		0.00	NW corner tree box.	UFA/DDOT
Brentwood & Hamlin Sts. NE. (Parking Lot at 17th St. corner)	Bioretention		0.00	Biocell at western corner to accept runoff from p-lot.	
Irving & 18th Sts. NE.	Curbside Bioretention/Tree Box		0.00	Tree box on NW and NE corners.	UFA/DDOT
18th & Hamlin Sts. NE.	Curbside Bioretention/Tree Box		0.00	Tree box on NE corner.	UFA/DDOT
Hamlin & King Sts. NE.	Bioretention		0.00	Large biocell inside park on souther side of Hamlin Street to treat street runoff.	DDOT
Mills & Hamlin Sts. NE (corner of pubic park)	Bioretention		0.00	Large biocell inside park on souther corner to treat street runoff.	DDOT/DPR
24th & Hamlin Sts. NE.	Curbside Bioretention/Tree Box		0.00	Tree box on NE corner.	UFA/DDOT
17th & Bryant Sts. NE.			0.00	Biocell on eastern side of Bryant south of the entrance to development to treat street runoff.	DDOT

APPENDIX D

DISTRICT OF COLUMBIA FACILITIES LISTED UNDER CERCLA OR HAVING AN NPDES PERMIT

APPENDIX D. DISTRICT OF COLUMBIA FACILITIES LISTED UNDER CERCLA OR HAVING AN NPDES PERMIT

Table D-1. List of D.C. Sites Subject to SARA Title III or EPCRA

CERCLIS EPA ID	SITE NAME
DCN000306144	2005 Inaugural Pre-Deployment Site
DCN000306631	2009 Inaugural Pre-Deployment Site
DC5570024443	Bolling Air Force Base
DCN000305703	Capitol Hill Anthrax Site
DCN000306094	Capitol Hill Ricin Site
DCN000306151	Cardozo High School Mercury Site
DCN000305870	Custis & Brown Barge Spill
DCN000305704	Diamond Ordnance Fuze Lab
DCN000305710	EPA Mail Rooms
DCN000306550	Former President Ford Funeral Security Detail
DC8210021004	Fort Leslie J McNair
DCN000306605	Fort Reno
DC8470090004	General Services Administration
DCN000305916	General Services Administration Building 410
DCN000306664	Georgia Avenue PCE Site
DCSFN0305462	Kenilworth Park Landfill Site
DC1170023476	Naval Security Station
DCD003254273	NPS - Anacostia Park Sections E & F
DCD983967951	PEPCO Benning Generating Station
DCN000305662	Poplar Point Nursery
DC0001401637	Seafarers Yacht Club ER
DC9751305997	St. Elizabeth Hospital
DCN000306630	US Capitol Complex
DC7120507432	US DA National Arboretum
DCN000305729	US Dept Of Commerce
DCN000306634	US Government Printing Office
DCN000305732	US Postal Service
DC9170024310	US Washington Navy Yard
DC9470090003	USA Fort Lincoln Barrel Site
DC4210021156	Walter Reed Army Medical Center
DCD983971136	Washington D.C. Chemical Munitions Site (Spring Valley)
DCN000306000	Washington D.C. Mercury Incident
DCD077797793	Washington Gas East Station

Based on data extracted from online EPA CERCLIS database July 2010 (www.epa.gov/enviro).

Table D-2. Industrial Facilities in the District of Columbia with Individual or Site-specific Storm Water NPDES Permits

Facility Name	NPDES Permit Number	Date Issued (Expiration)	Receiving Waters
Amerada Hess Corporation Washington Terminal	DC0000051	15-Nov-00 (14-Nov-05)	Anacostia River
CMDT Naval District Washington DC	DC0000141	27-Feb-01 (26-Feb-06)	Anacostia River
CTIDC	DC0000191	3-Jun-04 (2-Jun-09)	Anacostia River
D.C. WASA (Blue Plains)	DC0021199	25-Feb-03 (24-Feb-08)	Potomac, Anacostia, & Piney Rivers
Goose Bay Aggregates, Inc.	DCR05A046	7-Apr-00 (6-Apr-05)	Anacostia River
Government of the District of Columbia	DC0000221	19-Aug-04 (18-Aug-09)	Potomac River, Anacostia River & Tributaries
GSA-National Capital Region (NCR) Heating Operation and Transmission District (HOTD) (Central Heating Plant)	DC0000035	11-Sep-01 (10-Sep-06)	Rock Creek
GSA-Southeast Federal Center	DC0000299	1-Jul-03 (30-Jun-08)	Anacostia River
Hqts. Naval District Washington	DC0000159	25-Nov-92 (24-Nov-97)	Anacostia River
JFK Center for Performing Arts	DC0000248	27-Jul-01 (26-Jul-06)	Potomac River
National Gallery of Art	DC0000167	14-Dec-01 (13-Dec-06)	Washington Ship Channel
PEPCO-Benning Gen. Sta.	DC0000094	17-Nov-00 (16-Nov-05)	Anacostia River
Super Concrete Corporation	DC0000175	12-May-03 (11-May-08)	Anacostia River
U.S. Army Corps of Engineers Washington Aqueduct Division Dalecarlia WTP	DC0000019	15-Apr-03 (14-Apr-08)	Potomac River
WMATA-Mississippi Avenue DPS	DC0000337	24-Jan-06 (23-Jan-11)	Oxon Run
Walter Reed Army Medical Center	DC0000361	23-Jul-08 (22-Jul-13)	Rock Creek

- Retrieved from online EPA Permit Compliance System (PCS) (www.epa.gov/enviro, July 2009).
- GSA Southeast Federal Center, D.C. Government, Washington Navy Yard, and WMATA hold site-specific storm water permit

APPENDIX E

OPM / DRES INTEGRATED PEST AND NUTRIENT MANAGEMENT POLICY

Integrated Pest and Nutrients Management (IPNM)

The purpose of this policy is to provide a safer strategy to effectively reduce the potential health and environmental risks associated with pesticide use at District government occupied buildings. The Integrated Pest Nutrients Management (IPNM) Policy will support OPM efforts to introduce practical pollution prevention guidelines associated with pest abatement practices and fertilizer applications.

Reduction

- No pesticide classified as Toxicity Category I by the United States Environmental Protection Agency (EPA) as of April 1, 2005, will be applied to any property owned or operated by OPM. In the event that new pesticides are added to the Toxicity Category I by the EPA, then pesticide will not be used after 6 months from its classification.

- No District agency or contractor shall apply any pesticide classified as a human carcinogen, likely to be carcinogenic to humans, a known/likely carcinogen, a probable human carcinogen, or a possible human carcinogen by the EPA Pesticide Program, except as provided for in the Exemptions section and the Waiver section of the this IPM policy.

- No District agency or contractor shall apply any pesticide classified by the California Office of Environmental Health Hazard Assessment as a developmental toxin as of April 1, 2005, except as provided for in the Exemptions section and the Waiver section of this IPM policy.

Exemptions

The restrictions established in the Reductions section of this IPNM policy shall not apply to the following:

- pesticides otherwise lawfully used for the purpose of maintaining a safe drinking water supply at drinking water treatment plants, wastewater treatment plants, reservoirs, and related collection, distribution and treatment facilities;
- anti-microbial pesticides;
- pesticides applied to professional sports playing fields, golf courses or used to maintain water quality in swimming pools;
- pesticides used for the purpose of maintaining heating, ventilation and air conditioning systems, cooling towers and other industrial cooling and heating systems;
- pesticides used for the purpose of rodent control in containerized baits or placed directly into rodent burrows or placed in areas inaccessible to children or pets;
- pesticides or classes of pesticides classified by the United States environmental protection agency as not requiring regulation under the federal insecticide, fungicide and rodenticide act, and therefore exempt from such regulation when intended for use, and used only in the manner specified;
- biological pesticides; and

- boric acid and disodium tetrahydrate, silica gels, diatomaceous earth, and non-volatile insect bait in tamper resistant containers.

Waiver

- Any District agency occupying OPM managed space or contractor servicing such is allowed to request, in writing, a waiver of the restrictions established this IPM policy.

Notification

Any District agency or contractor applying pesticides on property owned or leased by the District shall post a notice at publicly accessible locations on such site at least twenty-four hours prior to any such application, in a form described below, provided, however, that applications requiring immediate action for public health reasons, such as severe rodent infestations, where mosquito larvae are present, or where populations of infected mosquitoes are present shall require that notice be placed concurrently with such application. Such notice shall include, but not be limited to:

1. Date of posting, proposed date of pesticide application and two alternative dates to the proposed date of application when, due to weather conditions, the pesticide application on the proposed date is precluded;
2. Address of pesticide application and, if known, specific sites to which the pesticide is to be applied;
3. Pest to be controlled and method of pesticide application;
4. Common trade names of the pesticide, if applicable;
5. United States environmental protection agency registration number of the pesticide, the active ingredient(s) contained in the pesticide and information on how to obtain further information about the products applied, such as by calling the National Pesticides Information Center at 1-800-858-7378 or the National Capitol Poison Control Center at (202) 222-1222; and
6. Name and telephone number of the District agency or contractor responsible for the application. The District agency or contractor responsible for posting the notice required pursuant to subdivision a of this section shall not remove such notice for the longer of either three days subsequent to the last moment of pesticide application or the number of days required on the pesticide product label. The notification requirements established pursuant to this section shall not apply to pesticides listed in the Exemptions section of the IPM policy.

Recordkeeping and Reporting

Records for each pesticide application in an OPM operated building will be kept for a minimum of three years or such longer time period required by statute, regulation, or agency directive. The requirements for recordkeeping are outlined in the District of Columbia Pesticide Regulations, 20DCMR 22-25.

In addition to the records required by 20DCMR 22-25, the following additional recordkeeping requirements are required by this IPM policy.

1. EPA registration number of the pesticidal product;

2. Name and telephone number of the District agency or contractor responsible for the application;
3. Proof that required notice was provided;
4. A copy of any waiver that was granted under this IPM policy that affects the pesticide application.

Enforcement

Every contract to perform work or provide labor or services related to property owned and managed by OPM will contain the following provision: "To the extent that you apply pesticides to any property owned by the District, you, or any subcontractor you hire, shall comply with the OPM Pesticide Reduction Policy (IPNM practices)."

Upon receiving information that a contractor is in violation of this IPM policy, OPM shall review such information and offer the contractor an opportunity to respond. OPM finds that a violation has occurred, it shall take such action as may be appropriate and provided for by law, rule or contract, including, but not limited to, imposing sanctions, seeking compliance, recovering damages, and/or declaring the contractor in default.

APPENDIX F
DDOE WATER QUALITY DIVISION TARGETED FACILITY INSPECTIONS AND ILLICIT DISCHARGE INVESTIGATIONS IN FY 2009

Table F-1. Targeted Facility Inspections in FY 2009

Case Number	Facility Type	Facility Name	Location	Watershed	In Compliance
00109	Car Wash	Wash & Shine	5020 Wisconsin Avenue, NW	Potomac	Yes
00209	Auto Repair	Murphy's Auto Body	1708 Good hope Road, SE	Anacostia	Yes
00309	Auto Repair	Otis Auto Repair	2215 Fairlawn Street, SE	Anacostia	Yes
00409	Auto Repair	Good Hope Road Auto Center	2713 Good Hope Road, SE	Anacostia	Yes
00509	Dry Cleaner	Goody Cleaners	1911 Michigan Avenue, NE	Anacostia	Yes
00609	Auto Repair	Fort Dupont BP	4101 Alabama Avenue, NE	Anacostia	Yes
00709	Car Wash	Scott's reconditioning shop	4131 Minnesota Avenue, NE	Anacostia	Yes
00809	Auto Repair	Fort Davis Exxon	3825 Alabama Avenue, SE	Potomac	Yes
00909	Dry Cleaner	New Town Cleaners	3174 ½ Bladensburg Road, NE	Anacostia	Yes
01009	Auto Repair	KJ Autocare Inc.	3426 18th Street, NE	Anacostia	Yes
01109	Dry Cleaner	Spinners Inc	3915 South Capitol Street, SW	Potomac	Yes
01209	Auto Repair	T.J. Auto Repairs	1810 Bladensburg Road, NE	Anacostia	Yes
01309	Auto Repair	A & R Foreign Car Parts	1824 Bladensburg Road, NE	Anacostia	Yes
01409	Auto Body shop	American Auto Body Shop	6420 Chillum Place, NW	Anacostia	Yes
01509	Auto Repair	Cosmos Automotive	5455 3rd Street, NE	Anacostia	n/a
01609	Auto Repair	Hugh's Auto Service	223 Riggs Road, NE	Anacostia	n/a
01709	Auto Repair	Ikes Auto Center	219 Riggs Road, NE	Anacostia	n/a
01809	Auto Electric & Machine Shop	A & A Wholesale	6250 Chillum Place, NW	Anacostia	n/a
01909	Misc Repair	Parsons Upholsterers Co.	4244 Wisconsin Avenue, NW	Rock Creek	n/a
02009	Auto Body shop	Auto Body Express Service	6400 Chillum Place, NW	Anacostia	Yes
02109	Auto Repair	Tenley Circle Exxon	4244 Wisconsin Avenue, NW	Rock Creek	Yes
02209	Laundromat	Good wash laundromat	1603 Good Hope Road, SE	Anacostia	Yes

Case Number	Facility Type	Facility Name	Location	Watershed	In Compliance
02309	Auto Repair	Alexis Auto Service	1301 Bladensburg Road, NE	Anacostia	n/a
02409	Dry Cleaner	Gallaxie Cleaners	5708 Connecticut Avenue, NW	Rock Creek	Yes
02509	Dry Cleaner	C&C Custom Cleaners	5511 Connecticut Avenue., NW	Rock Creek	Yes
02609	Dry Cleaner	Regal Custom Cleaners	5021 Connecticut Avenue, NW	Rock Creek	Yes
02709	Dry Cleaner	Zips Dry Cleaners	4418 Connecticut Avenue, NW	Rock Creek	Yes
02809	Dry Cleaner	Connecticut Cleaners Inc.,	3333 Connecticut Avenue, NW	Rock Creek	Yes
02909	Misc Repair	Stay Side Systems & Products	600 Water Street, SW	Potomac	n/a
03009	Dry Cleaner	Lee's Laundry	3811 Livingston Street, NW	Rock Creek	Yes
03109	Dry Cleaner/Laundromat	Pan American Laundry	3715 Newark Street, NW	Potomac	Yes
03209	Misc Repair	Dcarlo Upholstery	7327 Georgia Avenue, NW	Rock Creek	n/a
03309	Auto Repair	Alpha Auto Body And Spray	1900-E Bladensburg Road, NE	Anacostia	Yes
03409	Auto Repair	Kiran's Auto Repair	1900-B Bladensburg Rd., NE	Anacostia	Yes
03509	Auto Repair	Fasco Fenwick Auto Storage	1830 Bladensburg Rd., NE	Anacostia	n/a
03609	Auto Repair	Abco Auto Service	1842 Bladensburg Rd., NE	Anacostia	n/a
03709	Auto Repair	A.T & K Motors Inc.	1900 Bladensburg Rd., NE	Anacostia	n/a
03809	Laundromat	Harvey’s Customer Cleaner	3232 Wisconsin Avenue, NW	Potomac	n/a
03909	Auto Repair	District Line Auto Service	7825 Georgia Avenue, NW	Rock Creek	Yes
04009	Dry Cleaner	Han Cleaners	4425 Wisconsin Avenue, NW	Potomac	Yes
04109	Laundromat	American Valet	4519 Wisconsin Avenue, NW	Potomac	Yes
04209	Dry Cleaner	Carriage Lamp Dry Cleaners	4859 Massachusetts Avenue, NW	Potomac	n/a
04309	Dry Cleaner	Vallet Shop	3003 Van Ness Street, NW	ock Creek	n/a

Case Number	Facility Type	Facility Name	Location	Watershed	In Compliance
04409	Auto Repair	T & W Auto Repair & Body Work	1736 Rhode Island Avenue, NE	Anacostia	Yes
04509	Auto Repair	E & E Auto Repair	2626 Evarts Street, NE	Anacostia	Yes
04609	Auto Repair	Right Hour Auto, Inc	2201 Channing Road, NE	Anacostia	Yes
04709	Laundromat	Love Bubbles Laundry	3027 Naylor Road, SE	Potomac	Yes
04809	Dry Cleaner	Valet Cleaners	3031 Naylor Road, SE	Potomac	n/a
04909	Misc Repair	Earls Service Center Inc.	3744 10th Street, NE	Anacostia	n/a
05009	Auto Repair	Get 'N' Gear Motors	3700 12th Street, NE	Anacostia	Yes
05109	Auto Repair	Twin Rivers Auto Service	2507 Bladensburg Road., N Anacostia E	Anacostia	Yes
05209	Auto Repair	Sam's Auto Care, Inc.	3621 Benning Road, NE	Anacostia	Yes
05309	Misc Auto Service	Stidham #2	3170 Bladensburg Rd., NE	Anacostia	n/a
05409	Restaurant	Armands Pizzaria	4200 Wisconsin Avenue, NW	Potomac	Yes
05509	Laundromat	Park Laundromat	7723 Georgia Avenue, NW	Rock Creek	Yes
05609	Dry Cleaner	Leather & lace Fabric Care	3201 New Mexico Avenue, NW	Potomac	n/a
05709	Dry Cleaner	Luster Cleaners of McLean Gardens	3402 Idaho Avenue., NW	Potomac	n/a
05809	Dry Cleaner	Parks Fabricare Center	4826 MacArthur Blvd NW	Potomac	n/a
05909	Auto Repair	Congressional Auto	1910 Bladensburg Road, NE	Anacostia	Yes
06009	Auto Repair	Republic Motor Company	1908 Bladensburg Road, NE	Anacostia	n/a
06109	Auto Repair	N/A	1601 New York Avenue, NE	Anacostia	n/a
06209	Auto Repair	N/A	1911 New York Avenue, NE	Anacostia	n/a
06309	Car Wash	N/A	2820 Bladensburg Road, NE	Anacostia	n/a
06409	Dry Cleaner	N/A	605 Chesepeake Street, SE	Potomac	n/a
06509	Laundromat	N/A	5567 S. Dakota Avenue, NE	Anacostia	n/a
06609	Dry Cleaner	N/A	5585 S. Dakota Avenue, NE	Anacostia	n/a
06709	Auto Repair	N/A	301 Kennedy Street, NE	Anacostia	n/a

Case Number	Facility Type	Facility Name	Location	Watershed	In Compliance
06809	Laundromat	Betty Brite Cleaners	5123 Nannie Helen Burroughs Avenue, NE	Anacostia	Yes
06909	Auto repair	GTS Auto Service, Inc	2310 18th Place, NE	Anacostia	Yes
07009	Auto repair	Collision Auto Clinic	2206 Lawrence Avenue, NE	Anacostia	Yes
07109	N/A	Washington Fireworks	2325 18th Place, NE	Anacostia	n/a
07209	Laundromat	Laundromat	1400 Rhode Island Avenue, NE	Anacostia	Yes
07309	Laundromat	Laundry Center	1350 Brentwood Road, NE	Anacostia	n/a
07409	Auto repair	National Auto Care/Parts	1810 Edwin Street, NE	Anacostia	Yes
07509	Auto repair	Crown Jay Auto Repair	2440 T Street, NE	Anacostia	n/a
07609	Auto repair	A-Plus Auto Generator Electric Service	2511 Bladensburg Road, NE	Anacostia	n/a
07709	Auto repair	AYT Auto Service	2121 W. Virginia Avenue, NE	Anacostia	Yes
07809	Auto repair	United Ventures Consortium	2711 26th Street, NE	Anacostia	Yes
07909	Auto repair	J.T. Auto Sales and Service	2040 W. Virginia Avenue, NE	Anacostia	Yes
08009	Auto repair	Tony's Auto Repair and Body Shop	2040 W. Virginia Avenue, NE	Anacostia	Yes
08109	Auto repair	West Virginia Body Shop	2040 W. Virginia Avenue, NE	Anacostia	Yes
08209	Auto repair	Express Service Center	2001 New York Avenue, NE	Anacostia	n/a
08309	Auto repair	AmeriBenz Auto Repair	2121 New York Avenue, NE	Anacostia	n/a
08409	Laundromat	Wash Stop	4514 Benning Road, SE	Anacostia	n/a
08509	Dry Cleaner	Billy’s Valet	4750 Sheriff Road, NE	Anacostia	n/a
08609	Dry Cleaner	Kim’s Fabricare Co.	5004 Benning Road, SE	Anacostia	n/a
08709	Dry Cleaner	Super Clean Dry Cleaners	4415 Bowen Road, SE	Anacostia	Yes
08809	Dry Cleaner	All State Cleaners	2026 Rhode Island Avenue, NE	Anacostia	n/a
08909	Dry Cleaner	Bergmann’s Inc.	2318 Rhode Island Avenue, NE	Anacostia	n/a
09009	Misc Repair	Mechanical Technology	4614 Nannie Helen Burroughs Avenue, NE	Anacostia	n/a
09109	Laundromat	P.J. Laundromat	4063 Minnesota Avenue, NE	Anacostia	n/a
09209	Laundromat	Clean All	2149 Queens Chapel Road, NE	Anacostia	Yes

Case Number	Facility Type	Facility Name	Location	Watershed	In Compliance
09309	Laundromat	Quality Wash	3915 Dix Street, #C, NE	Anacostia	Yes
09409	Auto repair	Williams' Garage	2317 Pennsylvania Avenue, SE	Anacostia	n/a
09509	Car wash	Flagship Car Wash	4432 Connecticut Avenue, NW	Rock Creek	Yes
09609	Restaurant	Angelico Pizza	4529 Wisconsin Avenue, NW	Rock Creek	Yes
09709	Auto repair	Youngins Towing	1940 Montana Avenue, NE	Anacostia	Yes
09809	Misc Auto Service	Auto Parts Inc.	2130 W.Virginia Avenue, NE	Anacostia	n/a
09909	Dry Cleaner	Highlands Cleaners	2341 Pennsylvania Avenue, SE	Anacostia	n/a
10009	Laundromat	Blue Ribbons Launderers	2807 14th Street, NE	Anacostia	n/a
10109	Car Wash	Smoke Salom Car Wash	3010 Rhode Island Avenue, NE	Anacostia	n/a
10209	Dry Cleaner	Lustre Cleaners	3225 Pennslvania Avenue, SE	Anacostia	n/a
10309	Laundromat	Coin Laundry	3250 Pennsylvania Avenue, SE	Anacostia	Yes
10409	Auto repair	Rick's Auto Clinic	3705 Benning Road, NE	Anacostia	n/a
10509	Auto repair	Royal Auto Service	4200 Nannie Helen Buroughs, NE	Anacostia	n/a
10609	Laundromat	K & G Laundromat	5307 E. Capitol Street, SE	Anacostia	n/a
10709	Auto repair	Randall's Auto Service	6007-9 Dix Street, NE	Anacostia	n/a
10809	Auto repair	T & A Used Auto Parts	1215 Kenilworth Avenue, NE	Anacostia	Yes
10909	Laundromat	Good Wash Laundromat	1603 Good Hope Road, NE	Anacostia	n/a
11009	Dry Cleaner	Betty Brite Cleaners	2233 Minnesota Avenue, SE	Anacostia	n/a
11109	Auto repair	Mario's Storage and Towing	1927 New York Avenue, NE	Anacostia	n/a
11209	Auto repair	A-1 Engine & Diesel Repair	1515 Kenilworth Avenue, NE	Anacostia	n/a
11309	Restaurant	Chicken Out Rotisserie	4866 Massachusetts Avenue, NW	Potomac	Yes
11409	Auto Body Shop	Horizons Auto Body	3621 Benning Road NE	Anacostia	Yes
11509	Auto repair	Sam's Auto care	3621 Benning Road NE	Anacostia	Yes
11609	Auto repair	Washington Auto Transmission Specialist	4451 Nannie Helen Burroughs Avenue., NE	Anacostia	Yes

Case Number	Facility Type	Facility Name	Location	Watershed	In Compliance
11709	Auto repair	Goodyear Auto Care	3156 Bladensburg Road., NE	Anacostia	Yes
11809	Auto repair	Meinke Car Care Center	3190 Bladensburg Road., NE	Anacostia	Yes
11909	Auto repair	C & E Auto Services, Inc	1729 Bladensburg Road., NE	Anacostia	Yes
12009	Car Wash	Dr. King's Car Wash	2735 Martin Luther King Jr., Avenue, SE	Anacostia	Yes
12109	Dry Cleaner	Dean Ave. Cleaners	4309 Nannie Helen Burroughs Avenue, NE	Anacostia	Yes
12209	Dry Cleaner	Global Cleaners	3700 Martin Luther King Jr., Avenue, SE	Anacostia	Yes
12309	Laundromat	Quality Wash	2626 Naylor Road, SE	Anacostia	Yes
12409	Dry Cleaner	Service Cleaners	2841 Alabama Avenue, SE	Potomac	Yes
12509	Restaurant	Domino's Pizza	4539 Wisconsin Avenue, NW	Rock Creek	Yes
12609	Dry Cleaner	Long Bros Cleaners	655 Lebaum Street, SE	Anacostia	Yes
12709	Auto repair	A & R Auto Parts	1824 Bladensburg Road, NE	Anacostia	Yes
12809	Auto Repair	ABCO Transmission	1840 Bladensburg Road, NE	Anacostia	n/a
12909	Specialized repair	Lees Auto & Transmission	1900 B Bladensburg Road, NE	Anacostia	n/a
13009	Dry Cleaner	Embassy Cleaners	4215 Connecticut Avenue, NW	Rock Creek	Yes
13109	Dry Cleaner	President Vallet II	4837 Wisconsin Avenue, NW	Rock Creek	Yes
13209	Dry Cleaner	President Vallet	5514 Connecticut Avenue, NW	Rock Creek	Yes
13309	Auto Repair	Rufus Auto Parts & Restoration	2902 Bladensburg Road NE	Anacostia	Yes
13409	Auto Repair	Able Auto Parts	2951 V Street, NE	Anacostia	n/a
13509	Auto Repair	Meineke Muffler	3190 Blandensburg Road, NE	Anacostia	n/a
13609	Auto Repair	The Auto Doctor	4251 Minnesota Avenue, NE	Anacostia	Yes
13709	Dry Cleaner	Sunset Cleaners	3511 12th Street, NE	Anacostia	n/a
13809	Auto Repair	Youngins Automotive Services	1940 Montana Avenue, NE	Anacostia	n/a

Case Number	Facility Type	Facility Name	Location	Watershed	In Compliance
13909	Misc Auto Service	Premium Distributors	3350 New York Avenue, NE	Anacostia	n/a
14009	Restaurant	Krupins Restaurant	4620 Wisconsin Avenue, NW	Potomac	n/a
14109	Auto Repair	Automotive Care Center	1505 S. Capitol Street, SW	Anacostia	Yes
14209	Auto Repair	Lincoln Cab	129 Q Street, SW	Potomac	Yes
14309	Auto Repair	Sangare's Auto Repare	2040 West Virginia Avenue, NE	Anacostia	Yes
14409	Auto Repair	Tony's Auto Repair and Body shop	2040 West Virginia Avenue, NE	Anacostia	Yes
14509	Auto Repair	J.T. Auto Sales & service Center	2040 West Virginia Avenue, NE	Anacostia	Yes
14609	Auto Repair	West Virginia Auto Body	2040 West Virginia Avenue,, NE	Anacostia	Yes
14709	Car Wash	Wash Zone	3451 Benning Rd., NE	Anacostia	n/a
14809	Car Wash	Scott Reconditioning Car Wash	4131 Minnesota Avenue,, NE	Anacostia	n/a
14909	Misc Repair	A1 Sales & Service	2517 Pennsylvania Avenue,, SE	Anacostia	n/a
15009	Laundromat	Shipley Laundromat	2275 Savannah Terr., SE	Potomac	n/a
15109	Auto Repair	National Auto Care	1810 Edwin Street., NE	Anacostia	Yes
15209	Auto Repair	S & N Auto repair	1850 Adams Street., NE	Anacostia	n/a
15309	Auto Repair	Earl's Auto Parts	2901 Minnesota Avenue., NE	Anacostia	n/a
15409	Dry Cleaner	Rhode Island Cleaners	4235 Wisconsin Avenue., NW	Rock Creek	n/a
15509	Auto Repair	David's Transmission	4451 Nannie Helen Burroughs Avenue, NE	Anacostia	Yes
15609	Restaurant	Tara Thai	4849 Massachusetts Avenue, NW	Potomac	Yes
15709	Dry Cleaner	Palace Cleaners	5019 Wisconsin Avenue, NW	Potomac	Yes
15809	Auto Repair	Good Hope Auto Center	2713 Good Hope Road, SE	Anacostia	Yes
15909	Misc Repair	Pep Boys	2626 Naylor Road, SE	Anacostia	n/a
16009	Auto Repair	Bills Garage	3012 Martin Luther King Jr., Avenue, SE	Anacostia	n/a
16109	Laundromat	Shulman's	1546 1st Street, SW	Potomac	n/a

Case Number	Facility Type	Facility Name	Location	Watershed	In Compliance
		Laundromat			
16209	Misc Repair	Brake Service Co.	1318 Half Street, SW	Potomac	n/a
16309	Specialized repair	Customer Towing & Auto repair	1345 South Capitol Street, SW	Anacostia	n/a
16409	Laundromat	Comfy Laundry	333 Hawaii Avenue, NE	Anacostia	Yes
16509	Laundromat	Spinners Inc.	3915 South Capitol Street, SW	Potomac	n/a
16609	Car Wash	Dr. King's Car Wash	2735 Martin Luther King Jr., Avenue, SE	Anacostia	Yes
16709	Auto Repair	M-Mat Auto Body	1851 Adams Street, NE	Anacostia	Yes
16809	Laundromat	C&C Customer Cleaner	655 Labaum Street, SE	Anacostia	Yes

Table F-2. Complaint-Driven Illicit Discharge Investigations in FY 2009.

Case Number	Location	Watershed	Issue	Resolved
081009	4200 Garfield Street and New Mexico Avenue, NW	Potomac	Sediment laden water found entering storm drain from construction site	Yes
081021	934 Michigan Avenue, NE	Anacostia	Possible dumping of oil down drain at corner of 9th and Michigan	Yes
081024	Barnaby Street and Aberfoyle Place, NW	Rock Creek	Strong sewage smell	Yes
081113	900 Valley Avenue, SE	Potomac	Sediment laden water found entering storm drain from construction site	Yes
081224	1200 Valley Avenue and 13th Street, SE	Potomac	Sediment laden water found entering storm drain from construction site	Yes
081125	1800 Alabama Avenue and Stanton Road, SE	Potomac	Sediments deposit alongside the pedestrian walkway and inside parking lot.	Yes
081208	2603 Connecticut Avenue NW	Rock Creek	Dumping grease and trash down the storm drain.	Yes
081209	1101 Rhode Island Avenue, NW	Rock Creek	Automotive fluid discharges to the public space	Yes
081210	600 Water Street, SW	Potomac	White paint discharging from the outfall at 7th St	Yes
081211	1322 9th Street, NW	Anacostia	Illicit used oil discharge from empty lot previously used for auto service shop	Yes
081211	1900 Bladensburg Road, NE	Anacostia	Ongoing investigation of illegal activity, Lot has been closed	Yes
081229	3500 Highwood Drive, SE	Anacostia	Leaking fluid from a broken down vehicle	Yes
090126	5913 Blair Road, NW	Anacostia	Concerning about the large quantity of old auto parts that possibly impact watershed during rain event	Yes
091026-A	2405 22nd Street, NE	Anacostia	Oil sheen noticed flowing off the parking lot by Hazardous Waste Inspectors	Yes
091026-B	631 P Street, NW	Anacostia	Dry oil sheen on the ground noticed by Hazardous Waste Inspectors	Yes
090129	1851 Adams Street, NE	Anacostia	Oil sheen noticed flowing into drains by Hazardous Waste Inspectors	Yes
090211	New Mexico Avenue and Garfield Street, NW	Potomac	Observed deep settled sediments from the outfall (O.I # 953)	Yes
090213	310 Eastern Avenue, NE	Anacostia	Received a complaint of Sewage discharge at the basement	Yes
090226	3700 9th Street, SE	Potomac	Illicit Paint discharge into the outfall 116.1.	Yes
090309	5145 Yuma Street, NW	Rock Creek	Citizen complaint about foamy water on the surface	Yes

Case Number	Location	Watershed	Issue	Resolved
090312	4200 Connecticut Avenue, NW - UDC Van Ness Campus	Rock Creek	Chlorinated water discharge from the swimming pool	Yes
090316	M Street and 25th Street, NW	Rock Creek	Petroleum spill	Yes
090420	Shepherd Road, NW	Rock Creek	Oil spill	Yes
090428	Chain Bridge and Canal Road	Potomac	Illegal dumping of street light poles	Yes
090515	1306 P Street, NW	Potomac (CSO)	Foamy water discharge from a roof drain to the street	Yes
090515-A	1900 M Street, SE	Anacostia	Boat sank in the Anacostia River	Yes
090521	25 Todd Place, NE	Anacostia (CSO)		Yes
090604	The National Arboretum	Anacostia	Sewage leakage from the broken pipe	Yes
090618	1349 Talbert Terrace, SE	Anacostia	Motor oil discharge to the storm drain	Yes
090623	2014 E Street, NE	Anacostia	Hydraulic oil leaking from a DPW garbage truck	Yes
090708	1520 Levis Street, NE	Anacostia	Hydraulic oil spills	Yes
090708-A	6415 14th Street, NW	Rock Creek	Water run-off from the construction site	Yes
090713	1120 34th Street., SE	Anacostia	Swimming pool discharge	Yes
090715	1250 25th Street., NE	Anacostia	Unidentified fluid discharge	Yes
090727	1211 Potomac Street., NW	Potomac	Illicit discharge of cooking oil and grease	Yes
090729	2311 Calvert St., NW	Rock Creek	Improper disposal of grease	Yes
090730	1100 Maine Avenue, SW	Anacostia	Sewage discharge from the broken pipe to the area behind and under the fish trailer	Yes
090731	523 9th Street, SE	Anacostia (CSO)	Broken sewage line	Yes
090812	20th Street and Southern Avenue, SE	Potomac	Oxon run water main break	Yes
090813	13th Street & Quincy Street. NW	Rock Creek	Oil spill	Yes
090819	Normanston Street & 30th Street., NW	Rock Creek	Sediment flowing in to the stream	Yes
090821	CSX Train Yard	Anacostia	Diesel fuel discharge	Yes
090825	Soapstone Creek NW OF_ID_849	Rock Creek	Smells of detergent and forming	Yes
090825-A	Soapstone Creek NW outfall XXXX6	Rock Creek	Discharge of chlorinated water	Yes

Case Number	Location	Watershed	Issue	Resolved
090826	Soapstone Creek Sanitary Sewer Leak	Rock Creek	Discharge of sewage	Yes
090901	600 Waters Street, SW	Anacostia	Possible oil sheen discharge Gangplank Marina	Yes
090901-A	3300 18th Street, NE	Anacostia	Water main break- Heavy sediment pollution/discharge to stream	Yes
090904	800 7th Street SW- Jefferson middle school	Anacostia	Diesel fuel spilled from an above ground tanker	Yes
090908	Normanstone Creek	Rock Creek	Dark green/ Black tarry runoff into Rock Creek	Yes
090911	2440 16th Street, NW	Anacostia (CSO)	Sediment laden water was discharged to the street	Yes
090915	CSX train yard	Anacostia	Water main break	Yes
090923	501 Aspen Street, NW	Rock Creek (CSO)	Emptying the contents of large heating oil tanks into the hole in the ground	Yes

Table F-3. Investigations Based on Emergency Responses in FY 2009.

Case Number	Location	Watershed	Issue	Resolved
081027	418 New York Avenue, NW	Anacostia	Multi agency ongoing investigation	Yes
081113	Mississippi Avenue and 15th Street, SE	Potomac	Open manhole cover, possible sewage contamination	Yes
081128	Mississippi Avenue and Southern Avenue, SE	Potomac	Follow up inspection	Yes
090106	Mississippi Avenue and Southern Avenue, SE	Potomac	Sanitary sewer odors from Oxon run	Yes
090108	4900 block of Hayes Street, NE	Anacostia	DPW crew piled debris, and drums of hazardous materials in the middle of the lot	Yes
090225	1001-1099 3rd Street, NE	Anacostia	Spill had reached the sanitary sewer due to a puncturing of the sewer line at the site.	Yes
090311	1424 Howard Road, SE	Anacostia	Discharge of heating oil from a storage tank onto the ground	Yes
090327	1001 Connecticut Avenue, NW	Potomac	Spill from overfill of an underground tank.	Yes
090330	Beach Drive, NW	Rock Creek	Hydraulic oil discharge from the commercial truck's hydraulic tank	Yes
090331	2 S street, SW	Anacostia	Diesel fuel spilled from a vessel sank at the pier	Yes
090331-A	1400 North Royal Street, Alexandria, VA - Mirant	Potomac	Fuel spill from the fuel tank of the truck	Yes
090403	1107 Bunker Hill Road, NE		Liquid tar draining from a drainpipe	Yes
090410	Suitland Pkwy, SE	Anacostia	Sewage flowing in the creek	Yes
090414	7015 Western Avenue, NW	Rock Creek	Unknown type of oil spills	Yes
090421	Benning Road_CSX station	Anacostia	Lubrication oil spill from over turned CSX train	Yes
090428	3945 4th Street, SE	Potomac	Raw sewage was being pumped from the Building	Yes
090430	Edwin and Lawrence Avenue, NE	Anacostia	Oil discharge to the storm sewer drain	Yes

APPENDIX G

STATUS UPDATE
LETTER OF AGREEMENT MILESTONES
BEST MANAGEMENT PRACTICES ENHANCEMENT PACKAGE

DISTRICT DEPARTMENT OF THE ENVIRONMENT

STATUS UPDATE
LETTER OF AGREEMENT MILESTONES
BEST MANAGEMENT PRACTICES ENHANCEMENT PACKAGE

ADMINISTRATIVE

- Update the existing MOU dated December 2000 to formally define roles and responsibilities of each District agency, including the District Department of the Environment (DDOE), D.C. Water and Sewer Authority (WASA), District Department of Transportation (DDOT), and Department of Public Works (DPW), by August 19, 2008.

  Status Update: Completed. The original MS4 task force agencies (DPW, WASA and DOH) signed the 2000 MOU with EPA, which contained a matrix of responsibilities for each of agency based on the 2000 MS4 Permit (Permit). Upon signing the Letter of Agreement with EPA, separate MOUs were developed between DDOE and the MS4 task force members to detail the new stormwater management responsibilities. These separate MOUs were needed due to administrative and fiscal requirements, and detailed the projects to be carried out by fiscal year and the cost associated with each activity. DDOE's Annual Report, submitted to EPA on August 19, 2008, included copies of the MOUs with DDOT, DPW and WASA. Copies of the most recent MOUs are included in Attachment A.

- Convene a Stormwater Management Task Force to make recommendations on the organization of the District's Stormwater Administration, and the District's stormwater funding mechanisms and fee structure, by March 28, 2008.

  Status Update: Completed. DDOE convened a Task Force to address stormwater management issues in the District and held monthly meetings from November 2007 through March 2008. This Task Force gathered representatives from District Government, the development sector, and environmental organizations to assess and make recommendations regarding the District's stormwater management priorities, organization of the District's stormwater administration and the adequacy of the District's funding mechanisms for stormwater management. The DC Council relied on the Task Force recommendations in developing and drafting the Comprehensive Stormwater Management Enhancement Amendment Act of 2008. The Act was signed by the Mayor in early 2009. The Act provides the District's stormwater administration with increased authority, integrate stormwater management considerations into other District agencies's operations, and improve coordination of stormwater management tasks and cooperation between District agencies.

- Implement recommendations for funding mechanisms and fee structure by December 31, 2008.

Status Update: Completed. Recommendations were made for a funding mechanism and a fee structure. Information about changes to the District's stormwater fee is available at http://ddoe.dc.gov/ddoe/cwp/view,a,1209,q,498382.asp.

TREE CANOPY

- Draft strategy for the District to achieve optimal tree canopy, with input from the Casey Trees foundation, Friends of the Earth (FOE), and other stakeholders. The strategy will utilize GIS technology to determine and to prioritize planting locations.

  Status Update: In Progress. Prior to the development of a detailed strategy, the University of Vermont was contracted by UFA to estimate the District's current and possible tree canopy. The University of Vermont used 2006 spatial and GIS data for the analysis. The analysis revealed that the District's current tree canopy is 35%. With this analysis, the District and stakeholders set up a 40% tree canopy goal to be achieved by 2035. A copy of this analysis is included in Attachment B.

- Provide final detailed plan for achieving the optimal District tree canopy goal in the 2009 Implementation Plan, dated August 19, 2009.

  Status Update: In Progress. DDOE's Watershed Protection Division finalized the draft strategy for achieving the 40% goal in June 2010. WPD is awaiting comments from the stakeholders (UFA, Casey Trees and other environmental groups). A final copy will be included in the 2011 Annual Report.

- The District shall make best efforts to achieve optimal tree canopy by planting at least 4,150 trees per year with a goal of planting and maintaining at least 13,500 additional trees by 2014. Trees shall be planted in the manner recommended by *The Green Build-out Model: Quantifying the Stormwater Management Benefits of Trees and Green Roofs in Washington, DC* (Casey Trees May 15, 2007) and/or other pertinent studies to achieve optimal survival tree rate determined in the strategy. The District shall annually document the survival rate of total trees planted along with an annual estimate of storm capture rates to determine the volume of storm water that is being removed from the MS4 system in a typical year of rainfall as a result of the maturing tree canopy over the life of the permit.

  Status Update: In Progress. The District continues to plant at least 4150 trees annually. The draft strategy includes a maintenance strategy to achieve optimal survival tree rate. DDOE's Stormwater Management Division (SWMD) purchased "City Green" (GIS based software) to calculate the stormwater volume that is removed from the MS4 for any given 2-year rainstorm. Stormwater captures will be reported in the FY 2011 Annual Report.

- No later than August 19, 2008, develop and implement a schedule to achieve an optimal tree canopy goal. The District shall make best efforts to implement said schedule no later than December 31, 2014, and will employ a stakeholder process that includes at a minimum

Friends of the Earth and Casey Trees. The plan and schedule will be incorporated into the next revision of the MS4 permit.

Status Update: In progress. The District's timeframe for achieving its optimal tree canopy cover is 2035. The draft strategy addresses a schedule and the number of trees that need to be planted yearly to achieve the optimal tree canopy. The Mayor has committed to achieving an optimal tree canopy goal by 2035.

- Continue current tree planting at the rate of at least 4,150 annually.

  Status Update: On track. More than 6,000 trees were planted by UFA and environmental groups citywide in 2009. The District will continue to plant at least 4,150 trees annually.

LOW IMPACT DEVELOPMENT (LID) PRACTICES

- Complete a master LID implementation list by August 19, 2008. The master list will be a revision of Appendix C included in the 2005 Anacostia TMDL Implementation Plan.

  Status Update: Completed. A copy of the master LID list implementation plan was included in the SWMP dated February 2009. The master LID implementation plan is divided by subwatershed.

- Construct 17 LID projects by August 19, 2009.

  Status Update: Completed. The status of the 17 LID projects is shown in the table below:

Table 1: LID projects implemented as part of the Letter of Agreement

Project	Type of LID	Location	Year Built	Number of LIDs
Anacostia River Walk Trail #1	Street Tree buffer area	11th St. at M St. SE & N St. SE	2008	1
Anacostia River Walk Trail #2	Vegetated Swale	Water St. SE west of boat houses in wooded area	2008	1
Anacostia River Walk Trail #3	Bioretention Area	Water St. SE near boat houses	2008	1
Anacostia River Walk Trail #3a	Vegetated Swale	Water St. SE near boat houses	2008	1
Anacostia River Walk Trail #4	Bioretention Area	M St. SE & Water Street, SE intersection	2008	1
Anacostia River Walk Trail #5	Bioretention Area	Near RFK Stadium service road & Independence Ave connector	2008	1

Project	Type of LID	Location	Year Built	Number of LIDs
Anacostia River Walk Trail #6	Bioretention Area	Off Benning Rd., between Oklahoma Ave & RFK parking lot entrance	2008	1
East Beach Dr. NW.	Bioswales	1000 LF roadway runoff directed through curb cuts to roadside ROW w/ rip rap; western side	2008	2
Nebraska Avenue	Bioswales	Nebraska Avenue, north side at Stephenson; north side before Oregon Avenue, and at triangle	2009	3
Constitution Square	Bioretention planters	1st Street between M and N street, NE	2010	3
Metropolitan Branch Trail	Bioretention	Metropolitan Branch Trail	2010	1
Metropolitan Branch Trail	Infiltration Trenches	Metropolitan Branch Trail	2010	1
		Total		**17**

- Complete the "Low Impact Development (LID) Stormwater Control Structures Maintenance Manual" by April 30, 2009.

  Status Update: Completed. The LID maintenance manual was finalized in May 2009. A copy of the maintenance manual is included in Attachment C.

- To the extent feasible, DDOT will comply with all LID options in the Anacostia Waterfront Initiative Transportation Architecture Design Standards for all DDOT transportation infrastructure projects.

  Status Update: On-going.

- Appendix C to the 2005 Anacostia TMDL Implementation Plan shall be included in the next revision of the DC MS4 permit.

  Status Update: Completed. Appendix C to the 2005 Anacostia TMDL Implementation Plan refers to the Anacostia portion of the Master LID implementation list referred to previously.

- The City shall make best efforts to devise a LID plan and schedule to be completed no later than December 31, 2014, which shall include measures such as: conversion of paved or hardened areas throughout the District, such as traffic street medians, and large sidewalk areas, into green space in the form of "pocket parks" or "green streets." The plan will identify all locations throughout the District where such projects are technically feasible and commit to specific schedules for implementing these projects at specific locations throughout

the seven-year period, with highest priority given to projects that offer the greatest storm water capture potential.

Status Update: On track. The LID plan will be devised along with the development of the Anacostia, Rock Creek and Potomac watershed TMDL WLA implementation plans before December 31, 2014.

- Such plan and schedule should extend LID incentives to strategies, including rain barrels and downspout disconnections, to other areas than just pocket parks.

  Status Update: On track. The District's plan for LID implementation will include the River Smart Homes program, which includes rain barrels and downspout disconnection, and to the green roof incentives program. Information on these programs can be found at www.ddoe.dc.gov

RAIN GARDENS

- Install approximately 50 rain gardens and 125 rain barrels city-wide, and perform 200 downspout disconnections, by December 31, 2009[1]. (319*)

  Status Update: Completed. 14 rain gardens, 13 permeable pavement, 59 bayscaping and 400 rain barrel projects were installed city wide by December 31, 2009. Additional 39 rain gardens, 25 bayscaping and 3 permeable pavement projects were installed by June 2010. DDOE intended to have a downspout disconnection grant in place to perform the downspout disconnections but it took longer than anticipated. The grant is now in place and downspout disconnections will take place in the upcoming fiscal year. The locations for all the rain gardens, bayscaping and permeable projects are included in Attachment D.

GREEN ROOFS

- No later than 18 months from the date of this package, DDOE shall work with the Mayor's office to determine the best way to develop legislation to establish tax credits or other incentives programs for installation of green roofs on non-governmental buildings. An update will be submitted by August 19, 2010.

  Status Update: Completed. Rather than tax credits, DDOE established an incentive program for green roofs that is funded through a variety of sources (MS4, stimulus and 319). The program offers a subsidy of $5 per square foot for projects up to 4,000 square feet and

[1] Numbers reflect installation to be performed city wide. The rain gardens, rain barrels and downspouts projects to be installed in the MS4 areas only will be paid by MS4 funds and the projects installed in the CSO will be paid by (319*) funds.

$7 per square foot for projects over 4,000 square feet. More information on the green roof incentive program is available at http://ddoe.dc.gov/ddoe/cwp/view,a,1209,q,499460.asp.

- Complete a structural assessment on all District properties maintained by Office of Property Management (OPM) to determine current roof conditions and the feasibility for green roof installation by April 30, 2009.

  Status Update: Completed. The Department of Real Estate Services (DRES), formerly known as OPM, completed building assessments for all of the District properties they maintain, including assessments on various components (HVAC, plumbing, electrical, etc.) that do not have any direct impact on the feasibility for a potential green roof. Information that was deemed necessary for determining the feasibility of a green roof was queried from these building assessments and a list of potential District properties that can receive a green roof was developed.

- For the next four years, every new building constructed by OPM will include green roofs where feasible as determined by OPM and all major renovations/rehabilitation projects of District-owned properties within OPM's inventory will include green roofs where feasible as determined by OPM.

  Status Update: On-going.

- Submit an implementation schedule including square footage, for the green roofs to be installed in selected District properties, based upon the results of the structural assessment, in the 2009 Implementation Plan.

  Status Update: On-going. The schedule containing the list of potential District properties that could potentially receive green roof is included in Attachment E. The implementation of these green roof projects will be consistent with the implementation of the Master LID implementation plan discussed earlier.

- Continue to review new and retrofit construction (federal, residential, commercial, and District-controlled properties) for green roof installation throughout the District, making available $500,000 in incentives for these roofs beginning October 1, 2008.

  Status Update: On-going. DDOE has made available over $500,000 for residential, commercial and District controlled properties since October 1, 2008.

- After one year, assess the effectiveness of the green roof incentives program and modify as needed, including dedicating up to $1,000,000 per year if deemed effective in order to make progress toward the Mayor's goal of achieving 20% green roof coverage in the District in 20 years. The Plan and schedule shall provide for steady progress toward the goal throughout the period and be incorporated into the next MS4 permit revision.

Status Update: Completed. DDOE has dedicated over $1,000,000 per year for green roof construction for the past two years. DDOE's WPD is currently assessing the effectiveness of the green roof incentive program.

- Annually document and report the square footage of green roof coverage for all buildings in the District.

  Status Update: Completed. DDOE has compiled a green roof database that includes projects that need approval from the Technical Services Division within DDOE and other green roof projects that are part of retrofit projects. The annual MS4 reports contain the square footage of those green roof projects that are approved by the Technical Services Division.

STREET SWEEPING

- Complete the street sweeping study and begin implementing the long-term enhanced street sweeping and fine particle removal schedule and program by December 30, 2007. Provide notice and opportunity for comment on plan by Friends of the Earth.

  Status Update: Completed. This commitment referred to two separate street sweeping studies. The first, called "Street Sweeping Study," was completed on September 28, 2007. The objective of this study was to estimate the amount of pollutants eliminated from the watershed by street sweeping and the efficiency of selected street sweepers in collecting pollutants. The second, called "Enhanced Street Sweeping and Fine Particle Removal Strategy" was completed in May 2008. Friends of the Earth was given the opportunity to comment on the final draft. The objective of this study was to maximize the current resources allocated to the street sweeping program (sweepers, manpower, routes, etc) in order to identify resources for an "environmental sweeping day" in "hot spots" determined by DDOE. The District Department of Public Works (DPW) is in the process of completing the final version of another study that utilizes elements from the findings of the first two studies. The goal of this study is to maximize the efficiency of the District's street sweeping program, and cut back on certain program elements in order to increase sweeping of "environmental hotspots" in the MS4 area. DDOE plans to release the findings of the final study to Friends of the Earth for comment. DDOE will also sign an MOU with DPW in FY 2010 to provide funding from the District's Stormwater Enterprise Fund to help with implementation of the findings of the final study.

- Submit the details of the implementation of the enhanced program for street sweeping and fine particle removal in the upgraded Storm Water Management Plan of February 19, 2009.

  Status Update: Completed. A street sweeping implementation schedule was incorporated into the District 2010 MS4 Permit and will be a major component of the Trash TMDL Implementation Plan.

- Continue with implementation of current large and enhanced fine particle removal program for street sweeping based on recently completed study recommendations and document

annual pollutant removal rates in pounds from the analysis of different materials collected that have been captured to show the amount of pollution from the street sweeping operation that is being diverted from entering the MS4 system. The District will use the following measurable outputs to track progress: tons collected from mechanical sweeping; tons collected from commercial corridor litter removal; tons collected from litter cans; number of litter cans in service; miles of alleys swept[2].

Status Update: In progress. DPW continues to implement its sweeping program based on the recommendations from recent studies. Since FY 2009, DPW has started to track the tonnage collected its mechanical sweeping, alley cleaning, manual cleaning, litter cans and carts. The tonnage collected in FY 2009 and projections for subsequent years is included in the MS4 Annual Report.

- The plan and schedule for the street sweeping program will be incorporated into the next MS4 permit revision and shall represent the District's best efforts at achieving a program designed to achieve optimum removal of fine particulate matter and other pollutants from the MS4 waste stream.

  Status Update: Completed. A plan and schedule was incorporated into the 2010 draft MS4 Permit.

COORDINATED CATCH BASIN CLEANING

- Install environmental catch basins or equivalent BMPs in new road reconstruction projects, starting April 2008. Submit implementation schedule in the upgraded Storm Water Management Plan.

  Status Update: On-going. All new road construction projects include water quality catch basins or equivalent BMPs. The schedule for new road construction was included in Appendix F of the SWMP dated February 19, 2009.

ESTIMATION OF POLLUTANT REDUCTIONS FROM STRUCTURAL AND NON-STRUCTURAL BEST MANAGEMENT PRACTICES (BMPS)

- Develop a statistical model for estimating pollutant reductions in Microsoft Excel or other database program that will be a combination of Portland's non-structural BMP spreadsheet model and the Watershed Treatment Model (WTM) developed by EPA. A draft of the model will be included in the 2008 MS4 Annual Report and final version will be included in the upgraded Stormwater Management Plan.

  Status Update: Completed. A draft of the model for estimating pollutant reductions was developed in Microsoft Excel and was included in the 2008 Annual Report. The draft model was based on the EPA Watershed Treatment Model (WTM) and the Portland model. The

[2] Measurable output for trash collection added.

draft was not finalized because EPA revised the WTM model to include non structural BMPs and programmatic measures (i.e. pet waste ordinances, inspection of construction sites, etc.) as well as discount factors for efficiency of the non structural BMPs. The revised WTM is in the beta-testing phase. Once EPA finalizes the revised WTM model, the "input parameters" worksheet and a first "run" of the model will be included in the next annual report.

IMPLEMENTATION OF A PROGRAM TO CONTROL DISCHARGES FROM DISTRICT AND FEDERALLY OWNED FACILITIES

- Develop a pollution prevention program that will include training to District government workers who are in charge of maintenance facilities and who handle hazardous materials, by September 30, 2008.

  Status Update: Completed. The District's Stormwater Pollution Prevention Plan Guidance was completed in early 2009 and distributed to each District agency and WASA. DDOE works with each agency as they develop their individual plans for all of their facilities. DDOE provided its own training, and then provided 5 additional training classes (and webinars) from the Center for Watershed Protection throughout 2009 and into 2010. DDOE plans to hold routine customized trainings that will be repeated throughout the calendar year, such as: Bioretention, Stormwater Best Management Practices, A Watershed Treatment Model: A TMDL Model & Tracking Tool, and many more. The Pollution Prevention Coordinator is working to ensure that all agencies implement their SWPPPs, and keeps the facility managers and staff well informed of the latest spill and good housekeeping technology through the life of the permit and beyond.

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UPDATE STORMWATER REGULATIONS AND GUIDELINES, TO INCORPORATE ENHANCED MANAGEMENT METHODS

- Promulgate new stormwater regulations that will require LID construction as a first option, and will incorporate enhanced stormwater management requirements for the District where feasible as proposed in the Anacostia Waterfront Corporation (AWC) standards, by June 30, 2008.

  Status Update: In progress. On June 15 and July 1, 2009, DDOE held public outreach meetings to consider implementation strategies and seek stakeholder input in developing soil erosion and sedimentation control and stormwater management regulations. These stakeholder meetings provided the public with a chance to comment on DDOE's draft proposed stormwater regulations. DDOE has received some extremely useful and substantial comments and is in the process of reviewing and incorporating them as necessary.

- Promulgate new regulations that will require construction site managers to have erosion control training by June 30, 2008.

Status Update: In Progress. The requirement will be incorporated into the final stormwater management regulations when they are finalized.

- Revise and update the District of Columbia Storm Water Management Guidebook, by December 31, 2008. (319*)

  Status Update: In Progress. The Guidebook will be completed once the revised stormwater regulations are in effect.

REVIEW CONSTRUCTION PROJECTS

- Continue to review construction projects in the District for soil erosion, sedimentation control, and stormwater management. Once promulgated, the District will require compliance with the AWC standards where feasible.

  Status Update: On-going. The District continues to review projects for soil erosion, sedimentation control and stormwater management, and when promulgated will require compliance with Anacostia Waterfront Corporation (AWC) standards when feasible.

- Provide the number of LID projects installed in private properties annually.

  Status Update: Ongoing. The numbers of LID projects installed in private properties are reported in the MS4 annual reports.

TRASH REMOVAL PLAN

- Continue with current and new trash removal programs to document that trash removal efforts from all sources are increased from the previous year, with annual incremental increases over the life of the permit and that such trash is diverted from the waste stream that contributes to the MS4 system.

  Status Update: On Track. DDOE continues to implement new activities and programs to increase removal of trash from previous year. Some of these activities are described below:

  - In partnership with the State of MD, DDOE completed development of a Total Maximum Daily Load (TMDL) for trash for the Anacostia River. DDOE is in the process of developing the TMDL implementation plan.
  - DC implemented the Anacostia River Clean-Up and Protection Act on January 1, 2010. The law required DC businesses to charge a five cent fee on all plastic and paper bags used to distribute consumer goods in the District. This law will hopefully help cut back on the number of bags used by area citizens, and subsequently cut back on the amount of litter bags from entering the Anacostia River.

- DDOE is working with DPW to increase the amount of time spent on sweeping environmental hotspots for trash in various parts of the MS4. These hotspots will be identified in accordance with the Anacostia Trash TMDL.
- DDOE has contracted with Washington Parks & People to implement a new program called "Dump Busters". The program will place surveillance cameras throughout the city to try and discourage littering.
- DDOE has awarded a grant to the Alice Ferguson Foundation to conduct a behavioral study regarding littering within the District. This study will be used in the development of a marketing campaign to discourage the District's citizens from littering.

- Require water quality catch basins for trash/sediment removal devices for new roadway reconstruction projects.

  Status Update: On-going. Water quality catch basins or equivalent BMPs are installed for every new roadway reconstruction project.

- By the end of FY 2009, complete a trash survey and trash removal strategy/trash reduction plan for the Anacostia River and include in the 2010 Implementation Plan. (319*)

  Status Update: Completed. The Anacostia Watershed Trash Reduction Plan was completed in December 2008. The plan included the results of a "trash survey" conducted in the portion of the Anacostia watershed located in the District of Columbia. A copy of the plan is included in Attachment F.

- Determine the type of trash control devices that would be the most effective in retaining large debris and sediments in the hot spot areas identified by the trash survey to be included in the 2010 Implementation Plan.

  Status Update: On track. As part of the development of the Anacostia Watershed Trash TMDL, DDOE is conducting field surveys within the Anacostia watershed to determine the most suitable and effective type of trash control. An update will be provided in the 2010 MS4 Implementation Plan.

- Identify a suitable location for one end-of-pipe litter trap in the 2009 Implementation Plan, to be installed by a contractor in the following year. If effective, describe efforts to increase installations of end-of-pipe litter traps in the 2010 Implementation Plan.

  Status Update: Completed. In November 2008, DDOE selected Nash Run and Watts Branch to test the use of end of pipe trash collection technologies. End of pipe technologies used by DDOE include in-stream trash and floating litter traps. DDOE has contracts in place with the Anacostia Watershed Society (AWS) and the Earth Conservation Corps (ECC) to install, maintain and test the effectiveness of in-stream trash traps. AWS is using a low cost device consisting of fencing and posts to capture trash as it moves across a braided section of Nash Run. Nash Run is a small tributary that has very high levels of trash according to the Anacostia Watershed Trash Reduction Plan. From February of 2009 to May of 2010, the

Anacostia Watershed Society and various volunteer groups have used the trash trap to remove 1,309 lbs of trash. Watts Branch is also heavily impaired because of trash. At Watts Branch, ECC has deployed a more sophisticated technology called a Bandalong Litter Trap. Using this device, ECC has removed 2.78 tons of trash and debris (measured wet) from the trash trap and prevented that trash from entering the Anacostia River. Both in-stream trash traps are located on National Park Service (NPS) land. DDOE has obtained the necessary permits from NPS to continue with the implementation.

Hickey Run, which daylights in the US Arboretum, is one of the District's most trash-filled streams. DDOE estimates that 14,623 pounds of trash flow to the Anacostia River annually. To help address this problem, DDOE has partnered with the US Department of Agriculture (USDA) Agricultural Research Service, the US National Arboretum and the US Army Corps of Engineers to construct an end of pipe filtration device that will remove floatables, sediments and other debris from the MS4 before it discharges to Hickey Run. The total project will cost approximately $2 million. All of this funding is federal, including $500,000 managed directly by DDOE for the construction of an access road to service the device. DDOE is using the experience gained from this project to see if a similar approach can be used in other subwatersheds of the Anacostia River.

- Retrofit 50 catch basins to address trash control, in conjunction with enhancements to the District's street sweeping efforts, by February 19, 2009.

  Status Update: Completed. DDOE selected the Fort Dupont subwatershed as the area for this pilot study, and installed 50 catch basin inlet screens in 2009. After the severe winter of 2010, numerous screens were damaged. ECC has repaired those screens and is in the process of retrofitting additional catch basins. Eventually, 80 catch basins will be retrofitted within the Fort Dupont Subwatershed of the Anacostia River.

- Develop a total maximum daily load (TMDL) implementation plan for the Anacostia River towards the goal of a "Trash-Free Potomac River" to be provided by October 31, 2010.

  Status Update: On track. DDOE's WPD is currently developing the trash TMDL implementation plan.

RETROFIT CATCH BASINS

- Commit $1 million annually for retrofitting existing catch basins with vortex separator systems or other effective structural BMPs that the District determines to be the best practicable technology available to maximize storm water pollution reduction, beginning October 1, 2009. Retrofitting will be part of subwatershed implementation plans.

  Status Update: Completed. DDOE has dedicated over $1,000,000 for retrofit projects.

PET WASTE

- Provide an implementation plan and strategy to reduce pet waste from entering storm drains. Strategy may include the creation of dog parks, and providing pet waste bags/receptacles at dog parks, hiring a contractor to deal with pet waste, and conducting a public education campaign in the District, in the upgraded Storm Water Management Plan.

  Status Update: Completed. The District's Pet Waste Strategy was developed in early 2009 and was included in the upgraded SWMP dated February 19, 2009. The Pet Waste Strategy included targeted enforcement and the creation of dog parks. DDOE is currently coordinating with the DC Department of Health and the Metropolitan Police Department for targeted enforcement and ticketing. DDOE coordinates with the Department of Parks and Recreation to conduct environmental site assessments for proposed dog parks. Following is the list of dog parks that are operating or under construction:

  - S and T Streets NW 2 triangle parks (operating)
  - Walter Pierce Park (under construction)
  - Newark and 49th Street NW (under construction)
  - Western Avenue NW (design phase)

  These dog park areas will receive strong focus for waste pick up and management outreach. In addition, each park will display prominent signage to tell residents that pet waste pickup is a DC Law, and must be practiced in all public spaces, especially dog parks and recreation facilities. DDOE's outreach campaign will ramp up throughout 2010.

ILLEGAL DUMPING

- Submit the number of catch basins and structural components of the MS4 conveyance system to be retrofitted as part of the Watts Branch restoration project.

  Status Update: Completed. The plans for the Watts Branch Restoration project have been completed. As part of the project, WASA has repaired two sewer crossings and will complete the remaining sewer line repair work in early 2011. The specific locations are detailed in the plans included in Attachment G.

- Begin the Watts Branch project which will include stream restoration, catch basin retrofits, and storm drain stenciling in the Watts Branch watershed. Storm drain stenciling will begin by April 30, 2008. Report progress in the 2008 Annual Report. (319*)

  Status Update: In Progress. The Watts Branch Restoration project has been initiated. Storm drain stenciling was started in the Watts Branch subwatershed in April 2008. Pre-solicitation notices have been issued by NRCS for bids on the stream restoration work. Awards will be made in the fall.

- Establish an Enforcement Office to advance and standardize enforcement procedures in DDOE.

Status Update: Completed. The Office of Enforcement and Environmental Justice was established within DDOE. The mission of DDOE's Office of Enforcement and Environmental Justice (OEEJ) is to conserve and protect the air, land, water, and natural resources of the District of Columbia and to ensure a safe and healthy environment by developing and implementing effective enforcement practices, supporting DDOE's environmental enforcement programs, implementing DDOE's Environmental Justice Program, and serving as the agency contact for enforcement matters involving U.S. EPA Region III.

- Continue to enhance the current DPW illegal dumping programs.

  Status Update: Completed. The Solid Waste Education and Enforcement Program (SWEEP) within DPW is responsible for sanitation education and enforcement. SWEEP inspectors patrol their assigned areas daily on the lookout for sanitation violations, such as illegal dumping. District residents can call the Mayor's Citywide Call Center (311) and provide information the following information:

  - The location (street, alley, vacant lot, etc. with an address, if possible) of the dumping.
  - Make, model and license tag number of the vehicle used to carry the item(s) to the site.
  - Time and date when the dumping occurred.
  - Type of materials that were dumped.

  A DPW SWEEP inspector will investigate the dumping and make arrangements for clean-up.

- Work with members of the Metropolitan Police Department to enhance illegal dumping enforcement.

  Status Update: In Progress. DPW, in partnership with the Metropolitan Police Department, offers a reward of up to $500 for information leading to the arrest and conviction of each illegal dumper.

- Work with DPW to install camera(s) to record illegal dumping activities and assist enforcement actions. The camera(s) will be installed in a rotating basis throughout the MS4 area. The installation will begin by August 19, 2009.

  Status Update: In Progress. The illegal dumping surveillance camera project was advertised through an RFA process in 2009. Washington Parks and People submitted a successful application and was selected as a grant partner. DDOE and Washington Parks and People are currently in the process of finalizing the Grant Agreement for the project. Work on the project is anticipated to begin later in 2010.

ILLICIT DISCHARGE PROGRAM

- Continue to enhance the District's illicit discharge program by targeting potential discharge sources (e.g. Laundromats, dry cleaners, auto repair shops).

Status Update: In Progress. An Illicit Discharge Detection and Elimination (IDDE) strategy for proactive inspection and enforcement program was developed in January 2008. A copy of the strategy was sent to the Office of NPDES Permits and Enforcement in 2008. The DDOE's WQD has been implementing the strategy since April 2007.

- By January 31, 2008, the City shall complete a strategy for proactive inspection and enforcement of illicit discharges of pollutants to storm sewers and drains. The program will target each item listed in the chart on p. 5 of the District's Sept. 24, 2007 proposal.

  Status Update: Completed. The IDDE enhanced strategy was completed and submitted to EPA on schedule. The IDDE strategy targets the following sources: sanitary wastewater, auto repair, car wash, laundromats, household hazardous waste, grass clippings, leaf litter, discharge of floatables and animal waste. A copy of the strategy is included in Attachment H.

- Annually target 20 percent of the MS4 area to achieve 100 percent coverage in the permitting cycle.

  Status Update: On-going. The District is meeting the 20% target to achieve 100% coverage in the permitting cycle.

INSTALL STORM DRAIN MARKERS

- Install 1,000 storm drain markers per year starting in April 2008. (319*)

  Status Update: On-going. At least 1,000 storm drain markers are installed yearly.

PROMOTE PROPER PET WASTE DISPOSAL

- Distribute "scoop your pet's poop" educational materials to all veterinarian clinics and pet shops in the District by March 2008. (319*)

  Status Update: Completed. Flyers were distributed to all veterinarian clinics and pet shops in the District, including the CSO area.

PUBLICIZE ILLICIT DISCHARGE PROGRAM ELEMENTS

- Enhance program to prevent illicit discharges by increasing publicity of the need to prevent illicit discharges. Enhancements to be identified in the upgraded Storm Water Management Plan

Status Update: Completed. The enhancements were identified in the SWMP dated February 19, 2009.

Appendix H

Street Sweeping by District Department of Public Works in the MS4 Area

Current streets swept by District Department of Public Works in the MS4 area