

Annual Program Report

Program year 4

(October 1, 2021 - September 30, 2022)

Government of the District of Columbia

Department of Energy and Environment

District of Columbia Municipal Separate Storm Sewer System (MS4)

Administrative Order on Consent

★ ★ ★ DEPARTMENT
OF ENERGY &
ENVIRONMENT

WE ARE
DISTRICT OF COLUMBIA
DC MURIEL BOWSER, MAYOR

TABLE OF CONTENTS

INTRODUCTION	4
PARAGRAPH 49.E.I. PROGRAM IMPLEMENTATION	5
1. Prioritization of District Facilities	5
2. Structural Stormwater BMPs	5
3. Stormwater Pollution Prevention Plans (SWPPPs)	6
4. SWPPP Implementation	6
I. P2 Database	6
II. Employee Training	7
III. Corrective Action	8
5. Regulatory Inspections	9
6. District Agency Roles and Responsibilities	9
PARAGRAPH 49.E.II TO III. PROGRAM DEFICIENCIES AND ACTIONS TO CORRECT	11
1. Prioritization of District Facilities	11
2. Structural Stormwater Controls	11
3. SWPPPs	12
4. SWPPP Implementation	12
I. General Implementation	12
II. P2 Database	13
III. Employee Training	14
IV. Corrective Action	14
5. P2 Program Regulatory Inspection	15
6. Overarching Influences	16
I. Agency Budgeting for BMP Maintenance	16
II. Behavior Change	16
PARAGRAPH 49.E.IV. SUMMARY OF REGULATORY INSPECTIONS	17
1. NPDES Compliance Evaluation Inspections	17
2. BMP Maintenance Inspections	17
PARAGRAPH 49.E.V. RECURRING MAINTENANCE AND HOUSEKEEPING ISSUES	18
CERTIFICATION	19
ATTACHMENTS:	
A. MSGP coverage sign	
B. Spill and leak response QR Code	

ACRONYMS

AIM	Additional Implementation Measure (2021 MSGP Section 5.2)
AOC	Administrative Order on Consent
BMP	Best Management Practice (SCM)
CAF	Corrective Action Forms produced by the P2 Database
CEI	Compliance evaluation inspections
CMD	Construction and Maintenance Division
COVID	Coronavirus pandemic caused by the 2019 SARS-CoV-2 virus
Critical Source	Critical Source as defined in Section 3.4 of the 2018 District MS4 Permit
CWC	Clean Water Construction Grant Program
DDOT	District of Columbia Department of Transportation
DGS	District Department of General Services
DMOI	District Deputy Mayor for Operations and Infrastructure
DOEE	District Department of Energy and Environment
DPW	District Department of Public Works
EPA	United States Environmental Protection Agency
FEMS	District Fire and Emergency Medical Services
MOU	Memorandum of Understanding
MPD	District Metropolitan Police Department
MS4	Municipal Separate Storm Sewer System
MS4 Permit	2018 District MS4 Permit (NPDES Permit number DC0000221)
MSGP	EPA Multi-Sector General Permit for industrial stormwater runoff
NON	Notice of Noncompliance
NOTN	Notice of Potential Noncompliance
NPDES	National Pollutant Discharge Elimination System
OCA	District Office of the City Administrator
OSSE	District Office of the State Superintendent of Education
P2	Stormwater Pollution Prevention
P2 Database	Stormwater Pollution Prevention Database
Program	Operations and maintenance program established by the AOC
SGS	Surface and Groundwater System
SCM	Structural Control Measure (BMP)
SWMP	Stormwater Management Plan
SWPPP	Stormwater Pollution Prevention Plan
Tier 1	Facilities in the Program that require MSGP coverage due to industrial activities
Tier 2	Facilities in the Program that are Critical Sources and do not conduct industrial activities
UDC	University of the District of Columbia

INTRODUCTION

The District of Columbia Government, through the Department of Energy and Environment (DOEE), submits this report as required by the Corrected Administrative Order on Consent (AOC), U.S. Environmental Protection Agency (EPA) Region III Docket No. CWA-03-2018- 0019DN (AOC). The AOC was effective on July 3, 2018 to resolve alleged violations of the District's Municipal Separate Storm Sewer System (MS4) discharge permit. The MS4 Permit is issued by EPA pursuant to the Clean Water Act and authorizes the District to discharge stormwater from the MS4 into waters of the United States.

Pursuant to Paragraph 49 of the AOC, the District is required to implement an operations and maintenance program (Program) for municipal facilities in the MS4 permit area. The Program is required to:

- Address operations, maintenance and good housekeeping practices, self-inspection, regulatory inspection (National Pollutant Discharge Elimination System (NPDES) compliance and Best Management Practice (BMP) maintenance inspections), and corrective actions;
- Identify staff and managers responsible for compliance at the facilities;
- Identify and train staff and managers responsible for conducting and tracking self-inspections;
- Specify frequencies for self-inspection of facilities and Stormwater Control Measures (SCMs), also known as BMPs, and for their regular maintenance to ensure stormwater pollution is prevented and good housekeeping is being practiced;
- Share regulatory requirements for tracking self-inspections and corrective actions; and
- Set timelines for completion and implementation of Stormwater Pollution Prevention Plans (SWPPPs) at specified types of municipal facilities in the permit area.

The Program is described in detail in Appendix A of the AOC.

This report is submitted in compliance with paragraph 49.e. of the AOC, which requires the District to submit a periodic Program report to EPA that:

- i. Documents implementation of the Program in the preceding Program Year, which runs from October 1 to September 30;
- ii. Identifies each Program implementation result that was found to be deficient and for each such result briefly addresses causes;
- iii. Describes each action that the District determined to take in order to address each deficiency;
- iv. Includes a summary of the findings of the reporting period's regulatory inspections conducted in the facilities, as required by the Permit;
- v. Includes a summary of recurring maintenance and good housekeeping issues, and how the District's agencies are addressing these recurring issues; and
- vi. Is concurrently posted on the District's website page where the MS4 Annual Reports are posted.

For ease of reference, this report is organized by reference to the requirements of paragraph 49.e. The report addresses the fourth Program Year, from October 1, 2021, through September 30, O&M Plan Annual Program Report – Year 4 December 2022 2022. This report is posted on DOEE's website page with the District's MS4 Annual Report (doee.dc.gov/publication/ms4-discharge-monitoring-and-annual-reports).

PARAGRAPH 49.E.I. PROGRAM IMPLEMENTATION

The Program, as described in Appendix A of the AOC, includes developing an inventory of municipal facilities in the MS4 permit area that are critical sources of stormwater pollution; providing guidance on maintenance of BMPs; creating or updating SWPPPs for each Program facility; developing a strategy for SWPPP implementation through a Pollution Prevention (P2) Database, training, and inspections; and defining agency roles and responsibilities to improve coordination and collaboration. The District's progress on each element is described in greater detail below.

1. Prioritization of District Facilities

DOEE developed and maintains an official inventory for the Program that identifies and prioritizes 35 municipal facilities. The inventory tracks the following data for each facility:

1. Tier and permit type to prioritize critical source facilities:
 - a. Tier 1: Facilities with industrial activities that need Multi-Sector General Permit (MSGP) coverage and their NPDES permit numbers;
 - b. Tier 2: Critical source facilities that do not fall into Tier 1;
2. Potential sources of pollution and site operations;
3. Stormwater Management Plans and SCMs;
4. Contacts: address, Stormwater Pollution Prevention Plan (SWPPP) team leader and members' names and contact information; and
5. Facilities removed from the inventory with justification for why each was removed.

DOEE conducted site walkthroughs at all the Program facilities in the first Program Year to gather information with which to complete the inventory. The official inventory is regularly updated to reflect changes in Pollution Prevention (P2) Program facilities, tier, potential sources of pollution, operations, and contact information. During the fourth Program Year, no new facilities were added to the inventory. The inventory includes 35 facilities, of which 25 are Tier 1 and 10 are Tier 2.

DOEE regularly shares the inventory along with actions necessary at each facility to implement the Program both internally with appropriate Program staff in DOEE and with other District agencies affected by the AOC (Program agencies), the Deputy Mayor for Operations and Infrastructure (DMOI), and the Office of the City Administrator (OCA).

2. Structural Stormwater BMPs

DOEE encourages self-inspection of structural stormwater BMPs at Program facilities. In the first Program Year, DOEE evaluated all Program facilities to identify SCMs onsite, and shared typical maintenance and self-inspection frequencies with agency staff. The P2 Database allowed for electronic tracking of their locations and maintenance status starting in the second Program Year, and in the third Program Year all facilities with SCMs began tracking maintenance in the P2 Database. The database was revised to allow for easier and more accurate tracking of SCM maintenance and inspection. DOEE helped agencies identify over \$10.4 million in additional funding for projects to install new SCMs at Program facilities for storage and vehicle washing infrastructure. DOEE continued to seek additional funding, applying for an additional \$4.2 million project to construct stormwater management and filtration systems.

DOEE connected Program agencies to resources to help them better understand and manage SCMs that are at their facilities. These included sharing engineering plans, coordinating meetings with SCM manufacturers, and connecting Program agencies to DOEE SCM inspectors to discuss disparities between plans and reality. DOEE also provided lists of maintenance contractors in the District, template contract language, and justification for maintenance, and connected Program agencies to other agencies with maintenance contracts to leverage existing resources to improve the frequency of SCM maintenance.

Program facilities with post-construction Stormwater Management Plans (SWMPs) received regulatory preventative maintenance inspections (BMP maintenance inspections), which, according to the Program schedule, are required once every five years. During the reporting period, one facility was inspected.

DOEE is funding a dedicated, full-time position at the District Department of General Services (DGS) to manage Stormwater Pollution Prevention efforts in accordance with Program expectations. This position was filled during the third Program Year and coordinated SCM inspection and maintenance and manages DGS' stormwater program. DGS is the landlord agency for 89% of Program facilities, and Program agencies rely on DGS in varying degrees to maintain infrastructure, including SCMs, at their facilities. Additional information on the Memorandum of Understanding (MOU) between DOEE and DGS to establish this position can be found in Section 8, District Agency Roles and Responsibilities.

3. Stormwater Pollution Prevention Plans (SWPPPs)

DOEE has consistently met with all agencies responsible for Program facilities since the first Program Year to regularly develop, update, and finalize SWPPPs. During the fourth Program Year, DOEE updated the Program's Template SWPPP to comply with the 2021 MSGP that came into effect March 1, 2021, (*See* attachment A) and held a workshop on how to utilize the SWPPP review checklist to ensure SWPPPs stay up-to-date and relevant to current facility operations. The P2 Database was updated to allow new SWPPPs to be automatically completed using data in the database and certified online. Of the 35 total critical source facilities requiring SWPPPs, all 35 have certified, up-to-date SWPPPs.

During the fourth Program Year, 11 new SWPPPs were developed using the template SWPPP in the P2 Database. DOEE conducted 35 annual SWPPP document reviews using a SWPPP review checklist to ensure the SWPPPs met MS4 Permit and MSGP requirements, where applicable, and released an updated SWPPP review checklist to include the 2021 MSGP requirements. The 2021 annual SWPPP review checklist has been utilized by 35 critical source facilities.

DOEE made a third-party contractor available to assist several agencies with SWPPP updates required by the 2021 MSGP, including the Department of Public Works (DPW) and the District Department of Transportation (DDOT). These efforts included investigating discharge points, updating facility maps, tracking SCMs, and drafting new SWPPPs. Throughout the process, DOEE provided guidance and feedback on SWPPP elements.

4. SWPPP Implementation

I. P2 Database

DOEE continues to work with DGS to maintain and improve a P2 Database for Program agencies to track SWPPPs, housekeeping, and self-inspections. DOEE focuses efforts on both developing and refining the P2 Database, and ensuring necessary staff has access and the training to utilize it. DOEE held 44 P2 Database-related events, including meetings, trainings, and site walkthroughs, which reached 160 people.

DOEE's primary goal during the fourth Program Year was to ensure all Program facilities were utilizing the P2 Database to track SWPPP implementation and to make the application more user-friendly. Specific improvements to achieve this goal included:

1. Electronic signature function for self-inspections, SWPPP modification log, and corrective action forms that are legally the same as a pen-and-ink signatures;
2. Fields and features to track new 2021 MSGP requirements not already in the P2 Database, including indicator and impaired monitoring, Additional Implementation Measures (AIM) levels, and major storm event control measures;
3. Aging field for corrective action forms that count the number of days each has been open with a trigger for automatic email notifications at 14 and 45 calendar days. The notifications are sent to the SWPPP team leader and include step-by-step instructions on what actions and reporting are required for Tier 1 and Tier 2 facilities;
4. Ability for corrective action forms to be created from and be associated with inspection and monitoring reports, and for new corrective action forms to be linked to existing forms so duplicative forms are minimized;

5. New SCM maintenance log to track and develop reports for maintenance activities, and new “inspection frequency” field associated with SCMs to track inspection needs;
6. Developed scope to connect P2 Database with DOEE Surface and Groundwater System (SGS) to allow for easy access to SCM details and inspection reports with expected completion during the fifth Program Year;
7. Unauthorized Non-stormwater Discharge Inspection form;
8. Automation of SWPPP Attachment Flow, which auto populates a revised SWPPP Template using data stored in the P2 Database and allows for electronic certification; and
9. Development of compliance dashboards to be utilized by SWPPP team managers to track compliance and anticipate upcoming deficiencies.

DOEE’s second goal during the fourth Program Year was to support employees at Program facilities in accessing and utilizing the P2 Database for tracking and entering data on SWPPP implementation. During the fourth Program Year, DOEE ensured the data was correctly entered, and set up agency dashboards to assist leaders in identifying agency-wide needs. DOEE enters employee annual stormwater training data into the P2 Database, including results from the online training module. DOEE held five trainings to familiarize and train staff to use the P2 Database and provided support by phone, virtually, and in-person to facilitate use of the database by staff managing SWPPPs at Program facilities.

DOEE procured 43 tablets in the second Program Year and has distributed a majority of them to sister agencies to allow stormwater program managers to access the P2 Database in the field. These tablets remain a resource for the Program, with additional tablets available to support new SWPPP team members and DOEE staff.

During the reporting period, all 35 critical source facilities utilized the P2 Database to track SWPPP implementation in some way.

P2 Database Utilization Type	Number of Facilities Utilizing	Number of Agencies Utilizing	Number of Entries in FY2021
1. Routine Self-inspections	35	8	569
2. Quarterly Visual Assessment Inspections	25	4	142
3. Analytical Monitoring	23	4	109
4. Stormwater BMP Maintenance	26	7	78
5. Corrective Actions	32	8	449
6. Employee Training Records	35	8	223
7. SWPPP Modifications	35	8	173

II. Employee Training

In the first three Program Years, DOEE communicated training requirements, developed a Stormwater Pollution Prevention Online Training Module and other training materials, conducted trainings, and tracked training-related compliance of all SWPPP team members. DOEE tracks SWPPP team members that need training in the P2 Database and with the online training module.

In the fourth Program Year, DOEE provided 50 trainings that reached at least 505 people, including stormwater training for facility staff and snowplow operators. Of these training events, 26 were educational site walkthroughs and mock inspections that reached 77 people. The walkthroughs at facilities specifically provided one-on-one training to SWPPP team members on how to conduct self-inspections, identify issues, take corrective action, and use the P2 Database. DOEE continued to encourage SWPPP team members to utilize the online training module. The Stormwater Pollution Prevention Online Training Module is a 25-minute video that is followed by a 10-question quiz with one bonus question that is designed to satisfy the O&M Plan yearly training requirements. In total, 191 employees successfully took and passed the online training module with a passing score of at least 80%. DOEE uploads the results from the training module into the P2 Database quarterly to track that all SWPPP team members have

met annual training requirements. An updated Stormwater Pollution Prevention Online Training Module was developed to include additional information on pollution prevention practices, increasing the length of the training from 25 minutes to 55 minutes. This extended training module replaced the previous version on September 30, 2022, followed by a 10-question quiz with one bonus question for use beginning October 1, 2022.

By the end of the fourth Program Year, 88% of facilities had met all annual stormwater P2 training requirements for their staff. Of those facilities that need additional staff training, seven facilities have all but one SWPPP team member trained, and one facility has all but two SWPPP team members trained. DOEE is actively coordinating with Program agencies to achieve full compliance with the training requirements. As of September 2022, all but nine SWPPP team members District-wide are current with annual stormwater training requirements.

DOEE provided topic-specific training to staff at Program facilities in order to impart the knowledge and skills necessary to implement facility SWPPPs. Topic-specific training included good housekeeping measures, spill and leak response, how to complete the SWPPP review checklist, monitoring requirements of the 2021 MSGP, AIM level triggers and responses, and identifying when non-routine maintenance is needed for SBMPs.

During the fifth Program Year, DOEE plans to continue to update training resources, an effort that occurred in the third and fourth Program Years. This effort includes publishing a P2 Database Training Module, creation of an online resource library, and development of reference guides and fact sheets for training topics that have been requested on multiple occasions.

Training Topic	Number of Events	Number of District Staff Trained
1. Compliance with Stormwater Regulations	5	32
2. MSGP for industrial stormwater runoff	1	10
3. P2 Database	4	51
4. P2 for Snow Operations	13	331
5. Compliance assistance walkthroughs and mock inspections	26	77
Total	49	501

III. Corrective Action

During this reporting period, DOEE continued to clarify expectations for taking corrective actions when potential violations are identified during regulatory inspections (for NPDES compliance) and self-inspections (for BMP maintenance). With the P2 Database now online, corrective action forms are immediately and easily created as SWPPP team members conduct self-inspections and enter monitoring data. The P2 Database was updated to include an aging field for each corrective action form to allow staff to understand how many days old it is, and an automatic email notification feature was added that sends clear instructions on recordkeeping and reporting requirements on day 14 and on day 45 if a corrective action form remains open, which signifies the issues have not yet been resolved.

DOEE provided regulatory inspection reports to Program facilities and offered compliance assistance or initiated enforcement when violations were found. DOEE coordinated with DGS to post signs visible from the public right-of-way at 33 Tier 1 facilities. The signs have information on SWPPP availability and how to report non-compliance to EPA, as required by the 2021 MSGP. DOEE also designed and purchased 30 signs to post at water spigots at Program facilities reminding staff that no outdoor washing is allowed of vehicles and equipment, and providing contact information for staff that can provide guidance on alternatives.

DOEE made its contractor available to three agencies to assist with managing stormwater programs, including implementing corrective actions. Activities included improving SWPPP implementation practices, such as good housekeeping and BMP maintenance, and a source tracking project to identify sources for benchmark exceedances. Larger projects included a study to

identify sources of benchmark exceedances at five Program facilities, assisting with the design and installation of structural controls, MSGP monitoring, and temporary controls for two sites that were added to the inventory. A QR Code was developed to assist in the timely reporting of spills and leaks and was affixed to spill kits at two agencies that manage 24 facilities. (See Attachment B). All activities assisted agencies with taking corrective action to prevent stormwater pollution.

The Program provided expertise for acute compliance assistance needs. During the fourth Program Year, the team assisted all agencies with preparation for the EPA MS4 audit, including training on how to share documents from the P2 Database, spill and leak response, and good housekeeping practices. The Program also helped agencies with how to respond to and report five instances of illicit discharge and two fires at or in the immediate vicinity of program facilities. In addition, the Program clarified requirements for reporting, anticipated and current non-compliance, and taking corrective action if monitoring identified pollution in facility discharges.

5. Regulatory Inspections

During the reporting period, DOEE conducted 12 regulatory compliance monitoring inspections of program facilities. Facilities subject to regulatory compliance monitoring inspections include facilities in the MS4 critical source inventory and facilities covered by the NPDES Multi-Sector General Permit (MSGP) for Stormwater Discharges Associated with Industrial Activity.

6. District Agency Roles and Responsibilities

DOEE established a P2 Team to oversee Program implementation. The team consists of three members, two of which are primarily dedicated to the Program and one of which splits their time with other programs. Together, they coordinate Program efforts, provide individual and personalized compliance assistance to Program agencies and their staff, and track Program implementation. The P2 Team meets bi-weekly to discuss implementation and strategies for success to best meet Program goals. Every Program facility is assigned a P2 Team member as their main point of contact for the Program to simplify communication, to identify training, funding, and other needs, and to provide compliance assistance for local and federal stormwater regulations.

DOEE worked closely with other Program agencies to ensure facilities have the resources and information needed to implement the Program during the fourth Program Year. Efforts include the following:

Type of Outreach	Number of Events	Number of People
Meetings (in-person and virtual)	212	1,182
Training*	24	428
Walkthrough	26	77
Total	262	1,697

* Training total does not include the number of walkthroughs.

To date, DOEE has conducted site walkthroughs at all the Program facilities. In the fourth Program Year, DOEE conducted 26 site walkthroughs. During these walkthroughs, DOEE walked the facility with site staff and identified and discussed potential pollutant sources and any corrective actions that were needed.

The Program tracked staff members responsible for compliance with the Program at all Program facilities in the P2 Database. DOEE met at least monthly with two of the eight agencies responsible for 24 of the Program facilities (67%). DOEE met with the remaining six agencies at least quarterly.

DOEE coordinated quarterly internal and District-wide meetings to track progress, discuss possible deficiencies, and identify ways to leverage resources and efforts to be successful in implementing the Program. District-wide meetings included facility managers and their supervisors, and topics such as expectations of the Program, BMP maintenance, managing onsite

contractors, and funding strategies were discussed. Information about the 2021 MSGP was also shared. Starting in June 2019 and continuing through the fourth Program Year, DOEE provided each agency with at least quarterly updates summarizing Program progress and identifying actions that would be required of them.

The Program also engaged supervisors, agency directors, the City Administrator, and the Mayor's Office to build understanding and support for the Program. The DOEE Director regularly included P2 requirements, action items, and updates in his quarterly meetings with DGS, DPW, and DDOT Directors, and in his monthly meetings with the President of the University of the District of Columbia (UDC). DOEE successfully recruited additional members associated with the Program from DGS, DPW, and DDOT to attend the monthly MS4 Permit Technical Working Group, which is an interagency group that collaborates on the implementation of the District MS4 Permit.

During the reporting period, DOEE executed an agreement with DGS to continue funding one full-time staff person that assists with the implementation of the Program. DOEE first executed an MOU with DGS on November 13, 2019 to fund a full-time stormwater expert to manage DGS's stormwater program and coordinate SCM maintenance at DGS-managed facilities. The MOU was extended into the fourth Program Year. DOEE also made contractor support available to DGS, DPW, District Fire and Emergency Medical Services (FEMS), and District Office of the State Superintendent of Education (OSSE) to maintain control measures, input facility information into the P2 Database, and navigate the 2021 MSGP Notice of Intent (NOI) application process. DOEE established and revised MOUs with DPW and DGS to fund construction projects that will install much-needed stormwater infrastructure at Program facilities, and DOEE purchased equipment and spill kits for UDC to allow for proper outdoor storage and spill and leak response.

PARAGRAPH 49.E.II TO III. PROGRAM DEFICIENCIES AND ACTIONS TO CORRECT

This section identifies each Program implementation result that was found to be deficient, briefly addresses the causes, and describes each action that the District took in order to address each deficiency.

1. Prioritization of District Facilities

No deficiencies were found for the prioritization of District facilities. All Program facilities have been visited and prioritized in the official inventory. The official inventory is updated whenever new information becomes available and is reviewed at least once a year to ensure it is up-to-date. DOEE is using the P2 Database to track the official inventory, including updating contact information on SWPPP team members, along with a separate spreadsheet with information on facilities removed from the inventory. DOEE will continue to review the inventory at least once a year to ensure facilities information is up-to-date and to determine if there is a need to add or remove facilities from the list.

2. Structural Stormwater Controls

Required maintenance of structural stormwater BMPs installed at Program facilities is improving; however, the completion of routine maintenance according to the approved SWMP's schedule is an ongoing challenge. During the latest reporting period, the compliance monitoring inspection performed found some BMPs in poor condition and requiring maintenance.

Causes: DOEE identified several reasons why some SCMs are not regularly maintained.

1. During the latest reporting period, DGS assumed responsibility for procuring maintenance contracts and developing a schedule of maintenance for all DGS-managed facilities. Contract procurement took longer than anticipated, resulting in missed routine maintenance. Agencies did not have sufficient funding or maintenance contracts in place to address the delayed maintenance as defined by the approved SWMP.
2. The P2 Database has improved DOEE's and sister agencies' ability to track maintenance needs and maintenance efforts. The improved tracking of maintenance by the P2 Database resulted in an improved ability to detect deficiencies.

Actions: DOEE continues to work with Program agencies to improve structural stormwater control maintenance by clarifying expectations and necessary actions. The Program has notified each facility of the known SCMs located on site, any stormwater management plans associated with the SCM, and required maintenance frequency and costs. DOEE has cross-referenced the SWMPs with the SCMs entered into the P2 Database to ensure all SCMs are tracked and included in SWPPP implementation measures. The District updated the P2 Database to improve SCM management, including: i) adding an inspection frequency field to each SCM; ii) **developing a** prioritization system for Program work orders; iii) **adding a** new maintenance log; and iv) exploring how to connect it to the Surface and Groundwater System (SGS). In addition, DOEE ensured facility site maps included the correct locations of SCMs and appropriate maintenance and self-inspection schedules and procedures when providing SWPPP reviews. In addition, DOEE routinely shared a list of general recommendations for frequency of self-inspection and maintenance for stormwater SCMs commonly found at Program facilities.

DGS has procured maintenance contracts for DGS-managed facilities and has developed a schedule of regular maintenance based on the requirements defined by the associated SWMPs. DGS has also prioritized maintenance at DGS-managed O&M Plan facilities over other DGS-managed non-critical source facilities. With the prioritization of O&M facilities and maintenance contracts in place, delayed maintenance should not be a continuing concern in future Program Years.

DOEE continues to clarify the requirements of SWMPs at Program facilities. Many facilities do not have access to their engineering plans or the final as-built plans for their sites, so DOEE continued to provide any plans that are available through the SGS. When necessary, DOEE connected the facilities to the Construction and Maintenance Branch (CMB) that inspects SCMs to clarify what is installed. DOEE also advocated for the regular maintenance of SWMP elements, including inlet filters and street trees, that were not being recognized as part of the facility's plan.

The P2 Database is improving the management of SCMs at Program facilities. SWPPP team members used mobile devices to find the location of SCMs on site and track self-inspection and maintenance activities. The P2 Database was used to identify a facility that missed SCM routine self-inspections and maintenance activities and better anticipate when these activities are due. Program agencies received quarterly reports with known maintenance needs and anticipated needs for the upcoming quarter. Work order requests for SCM maintenance were automatically submitted, prioritized, and tracked through the database, making notification of appropriate staff quick and easy.

See section 6.I. below for information on what the District is doing to ensure adequate funding for SCM maintenance.

3. SWPPPs

There has been a great improvement in the number of facilities that have SWPPPs since the start of the Program, but deficiencies remain around SWPPP reviews, especially among Tier 2 facilities. Tier 1 facilities did not have the same deficiencies because of the 2021 MSGP, which required SWPPP updates to be completed prior to submitting a notice of intent for coverage. All facilities on the official inventory have a certified SWPPP, but some Tier 2 facilities must be reminded to review and update their SWPPP when there are changes to SWPPP team members or changes to the site layout. Despite this, their SWPPPs continue to be largely up to date thanks to the P2 Database, which is being used to track SWPPP updates. The annual SWPPP checklist is working as expected when it is used. It was updated in the beginning of the fourth Program Year to incorporate new 2021 MSGP SWPPP requirements as well as requirements for Tier 2 facilities.

Causes: Tier 2 facilities are not consistently conducting annual SWPPP reviews within 12 months of their SWPPP being last reviewed or certified. This is due to a lack of prioritization, staffing shortages, and high turnover at the sites. Many facilities are understaffed, so in addition to turnover in SWPPP team leaders, remaining staff have decreased capacity to dedicate to SWPPP reviews.

Actions: DOEE provided quarterly reports that identified when each Program facility's annual review was due along with a link to online resources to help them complete the District's annual SWPPP review checklist. The Program also emailed facility and agency stormwater leads at least a month prior to the annual review being due and once the deadline was missed. The Program developed a guide on how to complete the SWPPP review checklist, which was made available online.

The Program worked to elevate SWPPP review requirements by raising them during other Program-related meetings with Program agencies. In some cases, DOEE set up an in-person meeting to review SWPPPs together and reviewed SWPPPs for non-responsive agencies.

The P2 Database allows the Program to track staff turnover, and DOEE reaches out to any new SWPPP team leader about annual review requirements and protocols.

4. SWPPP Implementation

I. General Implementation

Some facilities are still working to fully implement their SWPPPs.

Causes: The Program continues to build knowledge and proficiency among facility staff on stormwater P2, including expectations and responsibilities of SWPPP team members. While there has been general improvement in understanding, it has

not always translated into action on the ground. Some facilities are still working to purchase the tools and materials needed to implement their SWPPP, such as secondary containment and storage containers. During the reporting period, there has been a high turnover of personnel at affected agencies and facilities.

Actions: DOEE expects housekeeping and storage practices to improve as personnel become more familiar with implementation of their facility's SWPPP and procurement of additional non- structural BMPs. DOEE anticipates continued improvement due to in-person trainings and site walkthroughs resuming, as they provide the opportunity for staff to have first-hand experience translating what they learned during annual stormwater training into action. With these efforts, DOEE expects to see continued improvements in the fifth Program Year.

The P2 Database is making it easier to track SWPPP implementation. Facility and program managers can now track SWPPP implementation remotely, respond to corrective actions, and better manage competing needs across an agency's Program facilities. SWPPP teams can now submit work order requests in the field and more easily record efforts to inspect and maintain control measures through self-inspections and maintenance reports. These reports build in transparency and personal responsibility that will allow facilities to more effectively implement SWPPPs and understand any deficiencies that are present. Managers are automatically notified by email when corrective action forms are created. In the fourth Program Year, DOEE developed a P2 Database compliance dashboard for each agency, which included a report that lists the dates of SWPPP updates, making it easier to track compliance.

DOEE is also providing contractor support to four agencies to assist them with updating information in the P2 Database, maintaining BMPs, general SWPPP management, and good housekeeping. These efforts include a source tracking project to identify the causes of benchmark monitoring exceedances at five sites, assistance with permit coverage and reporting, and onsite SWPPP team training on self-inspections and good housekeeping.

In the spring of 2018, DOEE applied for Clean Water Construction (CWC) Grant funding to address storage and vehicle washing needs at Program facilities. The project has now begun, and over \$10.4 million in funding is available to install the storage infrastructure. DOEE anticipates these improvements will assist Program facilities with general SWPPP implementation by providing the infrastructure needed to store potential pollutants in a way that prevents contact with stormwater. During the third Program Year, DOEE applied for an additional \$4.2 million from CWC for stormwater management, including stormwater conveyance and treatment systems, in anticipation of the new AIM requirements of the 2021 MSGP. During the fourth Program Year, various containment systems and coverings were purchased to assist with the implementation of the SWPPPs, such as tarps, dumpster covers, hazardous materials containment sheds, and spill pallets.

II. P2 Database

Several elements in the P2 Database make tracking of SCM and monitoring data at Program facilities difficult. New SWPPP team members must undertake a significant level of training in order to effectively utilize the P2 Database.

Causes: New requirements in the P2 Database and increased usage of the P2 Database of SCM maintenance made it apparent that the SCM maintenance and the analytical monitoring data entry functions needed improvement. Originally this information was captured by uploading documents and updating the "Notes" field.

Actions: DOEE worked with DGS to set up a new SCM maintenance inspection form, in August 2021, to allow maintenance information to be more easily tracked. The new form auto-populates the features entered in the P2 Database for the facility and includes a separate field for the date of maintenance, allowing reports to be easily run and shared with Program agencies and SWPPP teams.

DOEE is also working with DGS to improve the tracking of analytical monitoring in the P2 Database. Prior to the new 2021 MSGP, only five facilities needed to track benchmark monitoring. The new permit now requires indicator monitoring and a new level of impaired waters monitoring for Project facilities with MSGP coverage. DOEE and DGS updated the database to reflect these changes and drafted a process flow through which monitoring results can more easily be entered and tracked. In the

fourth Program Year, DOEE developed a P2 Database compliance dashboard for each agency, which included a report that lists the dates and any exceedances detected in analytical monitoring dates, making it easier to track compliance. Analytical monitoring data entry flow is expected to be updated in the fifth Program Year.

DOEE and their contractor are developing a self-guided, online P2 Database training module set to assist with training staff on how to utilize the application. There will be 10 modules, each of which will be geared towards a different subset of actions in the database. For example, one module will be on how to successfully complete a self-inspection using the P2 Database whereas another module will be on how to enter SCM maintenance data. Work on the module set began during the end of the third Program Year and was completed during the fourth Program Year. The module is expected to be published and available for use early in the fifth Program Year.

III. Employee Training

The District is largely in compliance with the employee training requirement, but a few Program facilities have allowed SWPPP team members' compliance to lapse. Eleven existing SWPPP team members did not receive training within 12 months after the last stormwater training session they attended. 88% of the facilities had SWPPP team members fully up to date with annual stormwater training by the end of the fourth Program Year (September 2022).

Causes: Program facilities struggled to keep up with training requirements primarily due to personnel turnover. Turnover included both Facility Managers and SWPPP team members. With staff turnover, the Program noticed some Program facility SWPPP teams failed to update the P2 Database of staff changes and thus were not captured by the Program as needing to be trained.

Actions: The online training module allows members to more easily stay in compliance. New SWPPP team members can also utilize the training module when they are added to the team so that they can take the training as soon as possible after being assigned to the team. DOEE has asked new SWPPP team members to complete the training module within 90 days (one quarter) of being added to the team, to better clarify what needs to be done when new members are added.

DOEE sent Program agencies quarterly reports during the fourth Program Year that listed employees who needed training and those anticipated to need training during the next quarter. This allowed Program managers to anticipate training needs and ensure their staff takes appropriate action to remain in compliance. In the fourth Program Year, DOEE developed P2 Database a compliance dashboard for each agency, which included a report that lists the dates of annual training for SWPPP team members, making it easier to track compliance.

Program facilities were reminded to update the P2 Database to reflect changes to their SWPPP team whenever a quarterly training evaluation suggested members needed training. DOEE has also recommended for each agency to have all SWPPP team members take the training within a set timeframe so that annual training deadlines will be the same for all staff, thus reducing the likelihood of noncompliance.

IV. Corrective Action

DOEE implemented the proposed corrective action strategy as outlined by the Program document. SWPPP team members became much more proficient at identifying and reporting issues in the P2 Database and addressing corrective actions. There was also a marked improvement on the timeframe within which issues were corrected. However, District procurement processes and scarcity of funding led to many corrective actions remaining unaddressed for over 45 calendar days.

Additional information on strategy specifics are included in paragraph 49.e.i., section 4.III (p. 9); in paragraph 49.e. ii to iii., sections 1-4 (pp. 11 – 16); and in paragraph 49.e.v. (p. 18).

Causes: The tracking of corrective actions increased dramatically as facilities became familiar with, and proficient at, utilizing the P2 Database for self-inspections, spill and leak reports, and other aspects of SWPPP implementation. This was due to staff

more easily identifying when a corrective action was needed, and to corrective action forms being automatically created when issues were identified.

During the reporting period many corrective action forms were created but not closed out within 14 calendar days or within 45 calendar days. District procurement processes and lack of funding dedicated to stormwater maintenance led to many corrective actions taking months to address. For the fifth Program Year, DOEE has advised that additional funding be included in the DGS- managed maintenance contract to account for non-routine maintenance of stormwater infrastructure. As procurement of on-call maintenance contracts is not feasible for all agencies, it is anticipated that having non-routine maintenance built into the existing contract will reduce the number of overdue CAFs in the upcoming Program Year.

Actions: This issue improved throughout the fourth Program Year as staff and managers became more familiar with the P2 Database and how to take corrective action. In the third Program Year, DOEE and DGS worked on improving P2 Database functionality around corrective action forms and their management. This led to a marked decrease in the number of repetitive corrective action forms. In the fourth Program Year, DOEE developed a P2 Database compliance dashboard for each agency, which included a report that lists all corrective action forms created during the previous quarter and all open corrective actions with an aging field, making it easier to track compliance.

DOEE provided training to facility staff and managers on how to close out and manage corrective actions on May 10, 2022, after recognizing the number of open corrective action forms could become a problem. This was followed by several agency-specific meetings to go over how to manage CAFs and additional information shared during monthly P2 Database trainings. DOEE also shared information on the number of open corrective action forms in the P2 Database and the average aging period (i.e. length of time corrective action forms remained open) with agency stormwater leads and managers on a quarterly basis so agencies can better track progress, advocate for additional support to take corrective action, and to better identify efficiencies across Program facilities. The Program also worked closely with Tier 1 facilities to clarify and remind them of MSGP reporting requirements, and to provide feedback and encouragement when corrective actions had to be reported to EPA Region 3.

Work orders sent from the P2 Database were at first not being prioritized, but once DGS hired the stormwater expert that DOEE funded, work orders associated with Program facilities were prioritized to help ensure they were met within an appropriate timeframe.

The Program encouraged facilities to establish a routine budget to cover stormwater-related costs, including equipment, SCM maintenance, and spill and leak response material. DOEE provided equipment to Program facilities, including secondary containment pallets, sheds, tarps, and cabinets, to help address ongoing outdoor storage needs. This was done both through direct procurement and through MOUs with Program agencies. DOEE also applied for funding to manage stormwater, including conveyance, diversion, and filtering infrastructure, to allow Program facilities to take corrective action more quickly and within an appropriate timeframe, especially for Tier 1 facilities that may need to meet the 2021 MSGP AIM Level 3 deadlines. DOEE provided draft contract and procurement materials and justifications to support approval of expenditures needed to address corrective actions, including relocation of dumpsters uphill from storm drains and prioritization of installing canopies to reduce exposure to stormwater.

5. P2 Program Regulatory Inspection

DOEE conducted 12 regulatory compliance monitoring inspections during the fourth Program Year. Of the 12 inspections conducted, deficiencies were identified at 10 facilities.

Causes: Deficiencies documented during regulatory compliance monitoring inspections were the result of a failure by facility staff to consistently employ proper house-keeping procedures, implement corrective actions or complete the SWPPP review and revision process required when effluent limits are not met.

Actions: DOEE conducts closing conferences at the end of each inspection. During the closing conference, DOEE presents the observed and documented deficiencies, provides suggestions for improvement, and issues required corrective actions.

Required corrective actions are documented in DOEE Inspection and Corrective Action forms and/or detailed in emails to facility representatives. Facility representatives are reminded at quarterly intervals, at minimum, that although the results of indicator monitoring do not trigger AIM levels, any exceedance still requires a corrective action.

6. Overarching Influences

DOEE identified two factors that affected Program implementation: 1) a need for improved budget planning and 2) behavior change among facility staff. Below is a description of the actions the District is taking to address these two factors.

I. Agency Budgeting for BMP Maintenance

In the first three Program Years, DOEE supported other agencies to identify resource needs through site walkthroughs, site mapping, and other activities. DOEE helped develop maintenance budgets and proposed a budget enhancement for these efforts through the Office of the City Administrator, the Deputy Mayor for Operations and Infrastructure (DMOI), and the Executive Office of the Mayor. DOEE also coordinated with other Program agencies on submitting budget requests. Due to the COVID-19 public health emergency, the budget enhancement and individual agency funding requests were not funded **due to shifted priorities**. However, DOEE was able to support other agencies through other sources of funding including the CWC and the Stormwater Enterprise Fund. This included support to DGS to fund a full-time employee that is an expert on stormwater permit compliance and to UDC to fund interns to assist with developing SWPPPs and to coordinate annual stormwater training at the three UDC Program facilities. In addition, DOEE made a contractor available to DPW, DGS, and OSSE to assist with implementing agency stormwater programs.

During the third and fourth Program Years, DOEE made funding and resources available to agencies with Program facilities to assist them with meeting Program requirements. This included continuation of the DGS MOU to fund a full-time stormwater employee and critical updates to the P2 Database, as well as provided funding to maintain green infrastructure. Finally, DOEE awarded a CWC grant called Pollution Solutions to support P2 implementation at several Program agencies.

II. Behavior Change

Modifying employee behavior to prioritize good housekeeping is a challenge that requires on-going and consistent effort from the P2 team. Through the implementation of the Program, DOEE supports agencies to improve performance by conducting on-going trainings on good housekeeping best practices and how to use the P2 Database, by conducting site walk-throughs and mock inspections, and by holding meetings to discuss progress and financial support. In the fourth Program Year, DOEE developed an award system to help boost morale and improve performance of SWPPP team members. During the quarterly meetings with agency management and team leads, DOEE recognized a SWPPP team member as the Quarterly Stormwater Hero for outstanding performance and commitment to excellence of SWPPP implementation at their facility. The recipient received a framed certificate highlighting their achievements and recognition from their agency's management. During the first quarterly meeting of this fourth program year, DOEE also recognized a facility with notable achievements or stellar performance with a Facility of the Year Award. The facility received a plaque and recognition from their agency's management. The creation of these awards aims to incentivize SWPPP team members to emphasize the importance of good housekeeping and help to shift behavior.

PARAGRAPH 49.E.IV. SUMMARY OF REGULATORY INSPECTIONS

1. NPDES Compliance Evaluation Inspections

Since October 1, 2021, DOEE performed seven regulatory NPDES compliance evaluation inspections (CEIs) of municipal facilities. Of the seven inspections conducted, all were found in good or fair condition. Inspectors observed and documented deficiencies with five facilities not consistently meeting effluent limits.

2. BMP Maintenance Inspections

Since October 1, 2021, DOEE conducted compliance monitoring inspections of structural BMPs installed at one program facility. Inspectors observed and documented BMPs in good condition, and poor condition due to overdue maintenance.

As described in the following section, DOEE is working with Program agencies to correct deficiencies documented at the facility found in poor condition.

PARAGRAPH 49.E.V. RECURRING MAINTENANCE AND HOUSEKEEPING ISSUES

DOEE has observed an overall improvement in housekeeping practices; however, further improvements are needed, including the implementation of new control measures and procurement of storage and other solutions. As noted below, DOEE continues to collaborate with sister agencies to fund and implement needed improvements.

DOEE shared the available stormwater management plans with agencies responsible for Program facilities during the first Program Year and continues to share them as requested. These plans include the relevant engineering plans, maintenance requirements, and maintenance schedules. To further assist these agencies with BMP maintenance, DOEE provided standard self-inspection and maintenance schedules for common BMPs installed at Program facilities and provided standard and agency-specific language for maintenance contracts to assure compliance with District and federal regulations. Maintenance schedules for SCMs have been incorporated into the P2 Database for easy reference and to more easily track and record maintenance activities. DOEE has cross-referenced P2 Database entries with known SCMs included in plan sets and identified additional changes that are needed. These changes are needed due in part to a lack of understanding of the stormwater management plans, missing as-built engineering plans, and other factors.

DOEE made its third-party contractor available to DPW, DDOT, OSSE, and FEMS to assist with maintaining BMPs on site and removing legacy pollutants that had built up in inlets and other locations. DOEE has also provided funding to DPW to install new SCMs at several locations and is in the process of procuring practices for five other agencies in collaboration with DGS as part of a \$10.4 million capital project funded by the CWC. These efforts include leveraging funding from DOEE's Energy Administration to install solar canopies to protect large trucks.

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for knowingly submitting false information, including the possibility of fines and imprisonment for knowing violations.

A handwritten signature in cursive script, appearing to read "Jeffrey Seltzer", is written over a horizontal line.

Jeffrey Seltzer, PE
Deputy Director
Natural Resources Administration
Department of Energy & Environment

O&M PLAN ANNUAL REPORT ATTACHMENTS

A. MSGP coverage sign

B. Spill and leak response QR Code

[Facility Name]
is permitted for industrial
stormwater discharges under
the U.S. EPA's Multi-Sector
General Permit (MSGP)

NPDES ID# DCR05J00X

To obtain the Stormwater Pollution
Prevention Plan (SWPPP) for this
facility visit:

www.agencywebsite.gov/SWPPP

To report observed indicators of
stormwater pollution, contact the
[Agency] at (202) 555-5555 or
EPA Region 3 at (215) 814-2788

REPORTING SPILLS AND LEAKS



Use your phone to scan the QR Code to report spills and leaks at DDOT facilities and the immediate cleanup actions taken.

FOR EMERGENCIES, CALL 911

and refer to spill and leak procedure flowchart



District Department of Transportation