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Attachment 1. P2 Database Documents, including screenshots of the database and handouts provided during trainings and other activities.

Attachment 2. MSGP visual stormwater inspection training handout

Attachment 3. Mock inspection form used during site walkthroughs

### **ACRONYMS**

AOC Administrative Order on Consent BMP Best Management Practice (SCM)

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

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 2018 Multi-Sector General Permit for industrial stormwater runoff

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

P2 Team Stormwater Pollution Prevention Team that oversees day-to-day Program activities

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, U.S. Environmental Protection Agency 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:

- i. 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;
- ii. Identify staff and managers responsible for compliance at the facilities;
- iii. Identify and train staff and managers responsible for conducting and tracking self-inspections;
- iv. 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;
- v. Share regulatory requirements for tracking self-inspections and corrective actions; and
- vi. 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 second Program Year, from October 1, 2019, through September 30, 2020. This report is posted on DOEE's website page with the District's MS4 Annual Report (<a href="https://doee.dc.gov/publication/ms4-discharge-monitoring-and-annual-reports">https://doee.dc.gov/publication/ms4-discharge-monitoring-and-annual-reports</a>).

### 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 33 municipal facilities. The inventory tracks the following data for each facility:

- 1. Tier and permit type to prioritize critical source facilities:
  - a. Facilities with industrial activities that need Multi-Sector General Permit (MSGP) coverage;
  - b. 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 supervisor to the team leader; 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 P2 Program facilities, tier, potential sources of pollution, operations, and contact information. It includes 33 facilities, of which 23 are Tier 1 and 10 are Tier 2.

During the reporting period, no new facilities were added to the inventory. Two Critical Source sites were identified as being District-owned and operated during the second Program Year, but because both are inactive storage sites that are implementing corrective action, with the goal of decommissioning them in the future, DOEE regulatory staff determined they should not be added to the inventory. DOEE conducted a site walkthrough and created action plans for both sites on how to manage stormwater until they are decommissioned.

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, the Deputy Mayor for Operations and Infrastructure (DMOI), and the Office of the City Administrator (OCA). In the second Program Year, DOEE shared the inventory and actions quarterly.

### 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 on-site, and shared typical maintenance and self-inspection frequencies with agency staff using information in the current version of the District's Stormwater Management Guidebook and guidance for proprietary measures commonly found at Program facilities. SCMs and their maintenance frequencies were uploaded into the Pollution Prevention (P2 Database) in the second Program Year, allowing for electronic tracking of their locations and maintenance status. One facility installed a new StormFilter proprietary water quality SCM in the second Program Year in order to better manage stormwater pollutants, and DOEE assisted four agencies with identifying and reviewing plans for new SCMs at other Program facilities. The Program helped agencies identify roughly \$4 million in additional funding for these projects.

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, twelve facilities were inspected (63 percent of the Program facilities with SWMPs).

DOEE made a third-party contractor available to assist several agencies with BMP management, including the Department of Public Works (DPW), Department of General Services (DGS), and the Office of the State Superintendent of Education (OSSE), DPW

and OSSE both utilized the contractor to inspect and maintain SCMs. The Fire and Emergency Medical Services Department (FEMS) will utilize the contractor in the third Program Year.

DGS is the landlord agency for 88 percent of Program facilities, and Program agencies rely on DGS to varying degrees to maintain infrastructure, including SCMs, at their facilities. DOEE is collaborating with DGS to fund a dedicated, full-time position at DGS to manage stormwater Pollution Prevention efforts in accordance with Program expectations. DOEE expects this position will coordinate SCM maintenance and manage DGS's stormwater program. 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.

Several other agencies, including DPW, DDOT, and OSSE, assigned staff to manage their stormwater programs. These staff members assist with maintaining SWPPPs, recording implementation efforts, and ensuring self-inspections, employee trainings, and SCM maintenance occur on a regular schedule and as needed.

# 3. STORMWATER POLLUTION PREVENTION PLANS (SWPPPS)

During the first Program Year, DOEE met with all agencies responsible for Program facilities to begin developing, updating, and finalizing SWPPPs. DOEE developed a template SWPPP, held a SWPPP workshop, and developed an internal SWPPP review checklist to provide feedback to facilities on the official inventory. All 33 critical source facilities requiring SWPPPs have certified, up-to-date SWPPPs.

During the second Program Year, on December 10, 2019, DOEE provided a second, four-hour training on how to develop a SWPPP that was attended by 21 people from four agencies. In May of 2020, DOEE created a revised SWPPP checklist that is used by Program facilities to conduct annual SWPPP reviews, which are submitted to DOEE for review. The finalized version of the revised SWPPP checklist has been rolled out in the third Program Year.

DOEE provided site maps for Program facilities upon request. DOEE's contractor mapped 13 sites and developed 16 site maps in the first Program Year. Updates to several maps were made in the second Program Year as additional information and new control measures were added to several sites. New control measures included a new SCM, a StormFilter proprietary practice, and other measures, such as storage sheds and secondary containment, that were installed during the second Program Year. DOEE reviewed the updated maps to ensure that MS4 Permit and, when appropriate, MSGP requirements have been met.

During the second Program Year, DOEE received and reviewed 26 draft SWPPPs and conducted two annual SWPPP reviews using a SWPPP review checklist to ensure all SWPPPs met MS4 Permit and MSGP requirements, where applicable. DOEE shared feedback and comments with the agencies, and a copy of the checklist is kept on file at DOEE.

### 4. SWPPP IMPLEMENTATION

### I. P2 Database

DOEE continues to work with DGS to develop and roll out 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 have access and the necessary training to utilize it. DOEE held 79 P2 Database-related events, including meetings, trainings, and site walkthroughs, which reached 232 people.

DOEE's primary goal during the second Program Year was to finalize the P2 Database and refine its functionality to make it more user-friendly. The DGS database development contractor created user scenarios to beta test for functionality and errors. From October 2019 to January 2020, DOEE worked with three agencies to beta test the P2 Database at three facilities (one facility per agency) by going through the user scenarios and providing feedback to the contractor. After beta testing, DGS connected the P2 Database to their internal Salesforce work order request application and the database was made available to Program facilities in February 2020. For the rest of the second Program Year, DOEE worked with DGS and other Program agencies to collect feedback, functionality issues, and other concerns in order to improve the usability of the P2 Database for tracking SWPPP implementation. DOEE held weekly meetings with both DGS and a DOEE contractor, which was assisting with entering data for 20 facilities, to

identify ways to improve the database and solutions for usability and functionality issues. These issues included the routine self-inspection form, which staff found to be long and hard to complete in the field on mobile devices, the lack of certification language, and an e-signature needed to meet MSGP requirements. Actions to correct these issues are described in section "Paragraph 49.e.ii to iii. Program Deficiencies and Actions to Correct" of this report.

DOEE's second goal during the second Program Year was to support employees at Program facilities in accessing and utilizing the P2 Database for tracking and entering data on SWPPP implementation. DOEE worked with DGS to manage access to the database by developing usernames, passwords, and facility "home pages" for each facility and providing assistance to staff that were having difficulty logging onto the P2 Database for the first time. When it was first launched, each facility's information still needed to be populated with its own SWPPP data, including a list of potential pollutants, contacts, control measures, schedules and procedures, site map, and other crucial information found in its SWPPP. To assist Program agencies with entering SWPPP data into the database, DOEE assigned and supervised the DOEE contractor entering data for 20 facilities. DOEE also supervised University of the District of Columbia (UDC) interns entering data for three facilities, and DOEE staff entered information for five facilities. One facility loaded the SWPPP information into the P2 Database on their own. DOEE worked with the Metropolitan Police Department (MPD) to set up an electronic document sharing system that allows a contractor that manages one of MPD's facilities to share SWPPP implementation efforts with DOEE, which DOEE then enters into the P2 Database. In addition to SWPPP data, DOEE enters employee annual stormwater training data into the P2 Database, including results from the online training module. DOEE held two in-person trainings and a four-part virtual training to familiarize and train staff to use the P2 Database and provided 33 hours of support by phone, virtually, and in-person to facilitate use of the database by staff managing SWPPPs at Program facilities. Attachment 1 includes handouts from the P2 Database trainings.

DOEE procured tablets for each of the 33 Program facilities and for stormwater program managers at Program agencies to allow these personnel to access the P2 Database in the field. DOEE procured 43 tablets in the second Program Year, 21 of which were distributed in the spring of 2020. The other 22 tablets were retained by DOEE due to an acute need for teleworking devices during the COVID-19 pandemic. DOEE anticipates distributing the remaining 22 tablets during the third Program Year as additional teleworking devices are procured and as staff are allowed to return to the office for work.

During the reporting period, each of the 33 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
1. Routine Self-inspections	27	5
2. Quarterly Visual Assessment Inspections	19	2
3. Stormwater BMP Maintenance	6	3
4. Corrective Actions	5	3
5. Employee Training Records	33	8
6. SWPPP Modifications	19	6

## **II. Employee Training**

DOEE's Pollution Prevention (P2) team communicated training requirements and conducted trainings throughout the reporting period. To ensure agencies understood the importance of this training, DOEE Director Wells issued a memo to sister agencies on May 22, 2019, to clarify training requirements and expectations. The memo requested that each agency submit a list of staff required to be trained under the Program, including staff and managers responsible for conducting and tracking self-inspections, and notify DOEE whether or not the agency intended to use DOEE as its trainer. During the second Program Year, DOEE began to track individuals' compliance with the annual stormwater training requirements to ensure all SWPPP Team members received appropriate training. This is now possible because Program facilities have certified SWPPPs that identify team members. The P2

Database allows members to be added and edited easily and quickly to keep up with facilities' staff turnover and adjustments to the team as they manage their stormwater programs. DOEE identified the SWPPP Team members for all 33 facilities currently on the official inventory and works to ensure all SWPPP Team members receive training once every twelve (12) months.

DOEE provided 43 trainings that reached at least 709 people, including stormwater training for facility staff and for snow plow operators. Of these training events, nine were educational site walkthroughs and mock inspections that reached 30 people. The walkthroughs at facilities specifically provided one-on-one training to SWPPP Team members on how to conduct self-inspections, identify issues, and take corrective action. By the end of the second Program Year, 88 percent of facilities were in compliance with annual stormwater P2 training requirements. Of those facilities that needed additional staff training, one facility had all but one SWPPP Team member trained, one facility had half of its team members trained, and two facilities needed to train all staff. DOEE is actively coordinating with sister agencies to achieve full compliance with the training requirements. As of December 2020, all but one employee is current with annual stormwater training requirements.

DOEE developed and launched the Stormwater Pollution Prevention Online Training Module, an online training program for facility staff that includes a 25-minute training video followed by a 10 question quiz with one bonus question. Staff must demonstrate their understanding of the training by scoring an 80 percent or higher on the quiz in order to pass. Quiz questions were carefully chosen to ensure students understand how to correct common stormwater issues found at Program facilities. Scores are tabulated, and the results are typically emailed to staff within one to two businesses days to inform them whether or not they passed and are in compliance with annual stormwater training requirements. DOEE finalized and shared the training with other agencies in February 2020. During the COVID-19 pandemic, DOEE stopped providing in-person trainings and instead encouraged Program facilities to meet annual training requirements by using the online training module. During the second Program Year, 197 employees successfully took and passed the online training module, and in July, all SWPPP Team members at Program facilities were compliant with training requirements. DOEE uploads the results from the training module into the P2 Database quarterly to track compliance.

DOEE topic-specific training provided staff at Program facilities with the knowledge and skills necessary to implement facility SWPPs. Topic-specific training included a two-day training developed in coordination with EPA Region 3 on how to comply with the MSGP. The training, conducted on October 2 and 3, 2019, included classroom and field components in which participants learned how to conduct self-inspections and stormwater monitoring. DOEE provided two trainings on how to conduct visual stormwater monitoring (see Attachment 2), a SWPPP workshop described in section 3, and several training sessions on the P2 Database described in section 4.I. (above).

Training Topic	Training Type	# Events	# District Staff Trained
	In-Person	3	77
1. Compliance with Stormwater Regulations	Virtual*	1	197
	Total	4	274
2. MSGP for industrial stormwater runoff	In-Person	1	40
	In-Person	3	16
3. P2 Database	Virtual	13	63
	Total	16	79
	In-Person	5	117
4. P2 for Snow Operations	Virtual	5	144
	Total	10	261
5. Site Walkthroughs and Mock Inspections**	In-Person	9	30
6. SWPPP Development	In-Person	1	21
7. Visual Stormwater Monitoring	In-Person	2	4
	In-Person	24	305
Total	Virtual	19	404
	Total	43	709

<sup>\*</sup> Virtual compliance training includes the online stormwater training module, which is counted as one event.

### **III. Corrective Action**

During this reporting period, the District continued to clarify expectations for taking corrective and subsequent actions when potential violations are found during self- and regulatory inspections (NPDES compliance and BMP maintenance inspections). With the P2 Database now online, corrective action forms can be immediately and easily created as SWPPP Team members conduct self-inspections. The facility manager is notified immediately when corrective action forms are created in the P2 Database, allowing for a timely response and clear accountability. DOEE provided regulatory inspection reports to Program facilities and offered compliance assistance or initiated enforcement when violations were found.

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. All activities assisted agencies with taking corrective action to prevent stormwater pollution.

### 5. P2 PROGRAM REGULATORY INSPECTION

No program facilities received NPDES compliance inspections in accordance with District and federal stormwater pollution control regulations during the reporting period. NPDES compliance inspections include both District MS4 Permit and MSGP inspections of Critical Sources of stormwater pollution, including at Program facilities. The results of earlier inspections were incorporated into four site-specific training sessions and into SWPPPs to ensure violations are addressed and continue to be addressed in the future.

BMP maintenance inspections were conducted at 12 Program facilities during the second Program Year.

### 6. DISTRICT AGENCY ROLES AND RESPONSIBILITIES

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

<sup>\*\*</sup> Site walkthroughs and mock inspections were only included as trainings in this table if SWPPT members participated in the event.

Type of Outreach	Number of Events	Number of People
Meetings	119	402
Training	34	679
Walkthrough	20	45
Correspondence (substantial phone calls/email)	86	513
Total	259	1,639

To date, DOEE has conducted site walkthroughs at all the Program facilities. In the second Program Year DOEE, conducted 19 site walkthroughs, fewer than expected due to COVID-19 pandemic restrictions. DOEE's contractor conducted an additional 34 site visits. During these walkthroughs, DOEE and the contractor walked the facility with site staff and identified and discussed potential pollutant sources and any corrective actions that were needed. DOEE developed a mock inspection form that was often shared for site walkthroughs (see Attachment 3).

From October 2019 to March 2020, DOEE hired two interns to conduct twice-weekly compliance assistance check-ins at two Program facilities to assist them with SWPPP implementation, conduct self-inspections, and help the facility staff understand what the Program requires. The interns conducted over 20 site visits in which they were able to assist staff with understanding how to change storage and housekeeping practices to meet expectations outlined in the facility SWPPP and address more complex issues at the sites, including elevating a work order request to get a sanitary sewer leak resolved. The interns also helped the facilities finalize and understand how to implement SWPPPs and assisted with entering data into the P2 Database.

DOEE identified staff members responsible for compliance with the Program at all of the Program facilities and tracked this information in the official inventory. In the third Program Year this information will be tracked in the P2 Database. DOEE has also engaged supervisors, agency directors, the City Administrator, and Mayor's Office to build understanding and support for the Program.

The District holds regular interagency stormwater meetings that DOEE utilizes to communicate and coordinate implementation of the Program. DOEE and DGS engaged the Office of the Deputy Mayor of Operations and Infrastructure (DMOI) and the Office of the City Administrator (OCA) to support management-level collaboration among the agencies. DOEE, DGS, DMOI and OCA focused on estimating the budget needs for pollution control measures, as well as developing a coordinated strategy to install and maintain SCMs. Finally, 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 UDC.

DOEE coordinated quarterly internal and District-wide meetings to provide a platform with which 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 discussed topics such as expectations of the Program, BMP maintenance, managing onsite contractors, funding strategies, and managing compliance during the COVID-19 pandemic. This included sharing information about when the 2015 MSGP was set to expire and about the EPA's COVID Temporary Enforcement Policy. Starting in June 2019 and continuing through the second Program Year, DOEE provided each agency with at least quarterly updates summarizing Program progress and identifying actions that would be required of them.

During the reporting period, DOEE developed and executed agreements with sister agencies to fund personnel that will assist with the implementation of the Program. DOEE signed an MOU with UDC on September 11, 2019 to fund stormwater interns to assist with SWPPP development, training, and entering data into the P2 Database. DOEE executed an MOU with DGS on November 13, 2019 to fund a full time stormwater expert that will manage DGS's stormwater program and coordinate BMP maintenance at DGS-managed facilities, but DGS was unsuccessful at filling the position. It is anticipated the position will be filled in the third Program Year. DOEE also made contractor support available to DGS, DPW, and OSSE to maintain control measures, input facility information into the P2 Database, as described in section 4.I, and plans to continue and expand the support to include FEMS in the third Program Year.

# 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. Moving forward, DOEE plans to use the P2 Database to track the official inventory, as it is where agencies update contact information on SWPPP Team members. 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

DOEE continues to work with sister agencies to assure the regular maintenance of structural stormwater BMPs at Program facilities. While maintenance has improved at some Program facilities, others are showing no improvement. Regulatory BMP maintenance inspections were conducted as planned with no deficiencies during the second Program Year.

<u>Causes:</u> DOEE identified three main reasons why some BMPs have not been regularly maintained. One of the main reasons for inadequate maintenance is the lack of knowledge about existing BMPs, including maintenance and self-inspection requirements. There was also confusion over maintenance responsibilities, specifically whether BMP maintenance is the tenant agency's responsibility or the responsibility of the District's land management agency (DGS). Finally, some facilities did not always have the appropriate budget or maintenance contracts in place that meet the recommended maintenance frequency as described by the approved SWMP for the locations. Instead maintenance services often required a new procurement action.

Actions: DOEE took a number of actions to improve frequency of BMP maintenance. First, DOEE notified staff at each facility of the known SCMs that were located on site and the stormwater management plans for those SCMs. When providing SWPPP reviews, DOEE ensured site maps included the correct locations of BMPs and appropriate maintenance and self-inspection schedules and procedures. In addition, DOEE continued to share a list of general recommendations for frequency of self-inspection and maintenance for stormwater BMPs commonly found at Program facilities.

The District anticipates the P2 Database will greatly improve the management of BMPs at Program facilities. SWPPP Team members are now able to use mobile devices to find the location of SCMs on site and track self-inspection and maintenance activities. The P2 Database can be used to identify when a facility has missed SCM routine self-inspections and maintenance activities and to better anticipate when these activities are due. Work order requests for SCM maintenance can automatically be submitted and tracked through the database, making notification of appropriate staff quick and easy. DOEE also anticipates that a new full-time, stormwater position at DGS will help manage maintenance and be able to advocate for the prioritization of work order requests submitted through the P2 Database so Tier 1 facilities can correct issues within timeframes outlined in Section 4.3. of the MSGP.

See section 6.1. below for information on what the District is doing to ensure adequate funding for SCM maintenance.

### 3. SWPPPS

No deficiencies were found for the development and maintenance of Program SWPPPs. All facilities on the official inventory have a certified SWPPP that has been reviewed within the last year. The new annual SWPPP checklist is expected to be rolled out in the third Program Year and will be used to ensure SWPPPs stay current and reflect any changes to personnel, operations, control measures, and other elements. The P2 Database includes a SWPPP modification log that allows updates to be tracked.

### 4. SWPPP IMPLEMENTATION

### I. General Implementation

Some facilities still are still working to fully implement their SWPPPs.

<u>Causes:</u> The District 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. This is in part due to a shift to virtual trainings due to the COVID pandemic. 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 their facility's SWPPP and how to implement it. DOEE anticipates an improvement once in-person trainings and site walkthroughs are able to resume more broadly, 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 noticeable improvements in the third 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.

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 funding has been and will continue to be made available to install the storage infrastructure in the second and third program years. 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 them from coming into contact with stormwater.

### II. P2 Database

The P2 Database is not being fully utilized by every Program facility to conduct regular self-inspections and to record and track maintenance and other P2 efforts.

<u>Causes:</u> In-person P2 Database training had to be delayed after two in-person sessions, and had to be pivoted to virtual training to adhere to COVID-19 restrictions. In addition, several Program partners provided feedback that the routine self-inspection form on the database was not user friendly.

Actions: Despite a delay due to COVID, DOEE was able to pivot training effort to virtual sessions that included a four-part training series in July 2020. DOEE also provided virtual and phone support to staff that resulted in all agencies utilizing the P2 Database in some way during the second Program Year. DOEE also hired and worked closely with a contractor and UDC interns to assist facilities in getting SWPPP data into the P2 Database and find ways to make the database more user-friendly. DOEE provided feedback to DGS to adjust functionality of the database, which included developing a more streamlined routine self-inspection form. Training, virtual and in-person support, along with improvements to the database, led to an overall increase in facility use, and in the third Program Year, DOEE expects all Program agencies will be fully knowledgeable, comfortable with, and able to fully

utilize the P2 Database to conduct regular self-inspections, track maintenance, and other efforts to implement facility SWPPPs. See Attachment 1 for handouts provided during P2 Database support activities.

### **III. Employee Training**

The District is largely in compliance with employee training, but a few Program facilities have allowed SWPPP Team members' compliance to lapse. While all Program facilities were in compliance in July 2020, only 92% of the facilities had SWPPP Team members fully up to date with annual stormwater training by the end of the second Program Year (September 2020).

<u>Causes:</u> DOEE shifted from tracking annual training at each facility to making sure all individual SWPPP Team members are trained annually. This shift occurred for two reasons: i) full lists of SWPPP Team members became available as SWPPPs were finalized, and ii) there was a shift from facility-specific training to the online training module. The shift to the online training module happened due to restrictions on in-person training put in place for COVID-19, and because many DOEE staff members were detailed to the District's COVID response, so unavailable to provide virtual, facility-specific training.

There is also a high turnover among SWPPP Team members. Former members commonly were still listed as part of the SWPPP Team and would not take the required training because they were no longer on the team. This lead DOEE to see the facility as not fully trained, despite all current staff members being in compliance.

Finally, several existing SWPPP Team members failed to receive training within twelve months from the last stormwater training they attended.

<u>Actions:</u> The P2 Database now clearly identifies individuals who are due for training, and allows SWPPP Team member information to be updated easily by the team lead. The online training module also allows members to more easily stay in compliance during COVID when in-person trainings are restricted and when an in-person training is missed. 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.

The P2 Database will make it easier to track an individual's compliance with annual stormwater training requirements as well. DOEE plans to send Program agencies a quarterly report during the third Program Year that will both share a list of employees in need of training and those who are anticipated to need training within the next quarter. This will allow Program managers to anticipate training needs and ensure their staff takes appropriate action to remain in compliance. DOEE will be able to use this information to share information on staff that have missed annual training requirements to their management and agency directors if needed.

DOEE has identified the employees that were in need of annual stormwater training at the end of the second Program Year, and has been working with management and agency directors to ensure all SWPPP Team members at Program facilities are trained by the end of the AOC, by January 3, 2021. DOEE anticipates meeting this deadline by having these employees utilize the online training module.

### IV. Corrective Action

DOEE implemented the proposed corrective action strategy as outlined by the Program document. However, the process through which corrective action forms and work order requests produced by the P2 Database are addressed could be improved. Work order requests are not filled according to a consistent timeline, with some being addressed fairly quickly while others are not being addressed for months or longer.

Industrial Program facilities (Tier 1) with MSGP coverage are expected to take corrective actions when effluent limits are not met or when conditions at the site could lead to the discharge of stormwater pollution from the facility. All facilities are expected to take immediate action to address the issue, and if a permanent solution cannot be put in place immediately, subsequent action must be taken within an expected timeframe, as outlined in Section 4.3 of the 2015 MSGP. The current timeframe with which work orders are addressed are longer than the expected timeframe, and while this is not a deficiency, it could typically take longer than 45 days, which would cause Tier 1 facilities to need to report stormwater issues to EPA.

Additional information on strategy specifics are included in paragraph 49.e.ii. to iii., sections 1-4 (pp. 11-14); and in paragraph 49.e.v. (p. 16).

<u>Causes:</u> Facilities became familiar and proficient at utilizing the P2 Database for self-inspections and to track SWPPP implementation during the second Program Year. By the end of the reporting period, SWPPP Team members using the P2 Database largely could identify and report issues, but the process through which they track and record activities to address corrective actions is still new. The original self-inspection form automatically created corrective action forms when issues were identified, and DOEE found that in many circumstances staff would address the issue immediately, but forget to close out the form resulting in a number of open corrective action forms. In addition, Facility managers automatically receive an email notification every time a corrective action form is created. Some facilities have data issues (e.g. no one identified as the facility manager or a missing or misspelled email address) and other facility managers can get overwhelmed with the sheer number of corrective action emails that are created after self-inspections. Many managers found it difficult to manage and prioritize the number of emails they received from the database.

In addition, work order requests submitted through the P2 Database are not always prioritized so they can be addressed in a manner consistent with MSGP corrective action timeframes. Instead, they are included as part of the District-wide work order request system, which has its own framework for prioritization.

Actions: DOEE anticipates that corrective action forms will be resolved more quickly once staff and managers become more familiar with the P2 Database and how to take corrective action. This will improve as the P2 Team is able to provide more site walkthroughs once COVID-19 restrictions are loosened, and as facility and program managers become familiar with closing them out. DOEE has begun doing this with DDOT using site walkthroughs, and it dramatically improved self-inspections and completing corrective action.

DOEE and DGS are working on improving P2 Database functionality around corrective action forms to help improve their management. DOEE revised the self-inspection forms so that corrective action reports do not have to be automatically generated if the SWPPP Team member addresses the issue immediately. For example, if they discover litter in an area and pick it up during the self-inspection, staff can mark the issue as already being complete instead of recording the issue in the self-inspection form, generating a corrective action form, and then going in and closing out the form to mark it as complete. DOEE anticipates that the new, streamlined self-inspection form will minimize the number of corrective action forms that are generated for issues that have already been addressed and minimize data entry fatigue while in the field. DOEE is also working with DGS to develop biweekly email summaries of corrective action notifications that will be sent to managers to minimize the number of emails they receive from the database. The email summary feature is expected to be completed in the third Program Year. DOEE and DGS also plan to conduct a quality assurance and control audit of the P2 Database to identify data gaps during the third Program Year and ensure corrective action notifications are being sent to the appropriate staff members.

DOEE provided training to facility staff and managers on how to close out and manage corrective actions on October 21, 2020 (in the third Program Year) after recognizing the number of open corrective action forms could become a problem. DOEE also plans to share information on the open corrective action forms in the P2 Database 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.

While the P2 Database connects directly to the District's work order system, the work orders are prioritized alongside all other work order requests for the District. Sometimes the timeline and prioritization for having the work orders addressed does not align with the corrective action timeframes, especially for Tier 1 facilities. DOEE plans to work with DGS to help prioritize requests from the P2 Database and to shepherd the request through the District-wide work order system. Once DGS has hired the stormwater expert that DOEE is funding, DGS will have more capacity to ensure these work orders are addressed in a timely manner.

DOEE continues to advocate for and provide assistance with funding that is needed to maintain and install control measures. During the reporting period DOEE developed action plans and cost estimates to assist with budget development, collaborated with DGS and DPW to develop MOUs, and worked with UDC all in an attempt to identify a funding strategy to install storage and vehicle washing solutions at 32 Program facilities.

### 5. P2 PROGRAM REGULATORY INSPECTION

DOEE was unable to implement its regulatory NPDES compliance inspection program fully during the second Program Year but anticipates resuming inspections in the third Program Year. No deficiencies were found with the BMP maintenance inspection program.

Causes: Due to COVID-19 all non-essential field activities, including NPDES compliance inspections, at Program facilities, were suspended on March 11, 2020.

Actions: DOEE intends to resume virtual and select in-person NPDES compliance inspections at Program facilities and remain in compliance with regulatory obligations in the third Program Year. Although no regulatory compliance inspection may have been conducted during the second Program Year, the Program is in compliance with AOC requirements and regulatory commitments.

### 6. OVERARCHING INFLUENCES

DOEE identified two factors that affected Program implementation across multiple elements; a need for improved budget planning, and for better inter-agency coordination. Below is a description of the actions the District is taking to address these two factors.

## I. Budget Development

The District typically begins budget development two years in advance and finalizes a budget 18 months in advance of the start of a fiscal year. Program funding needs were not fully understood in time for the funding request to be incorporated into the FY 2019 and FY 2020 budgets.

Based on the first Program Year efforts that included site walkthroughs, site mapping, and other activities, the District now has a thorough understanding of the resource needs. DOEE worked closely with other agencies on the development of budgets and a coordinated strategy to manage the Program in FY 2021 and future years.

During the second Program Year, DOEE has made funding and resources available to agencies with Program facilities to assist them with meeting Program requirements. This included an MOU with DGS to fund a full-time employee that is an expert on stormwater permit compliance who can provide oversight and management of agency initiatives on Program implementation, and an MOU with 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 and input data into the P2 Database so that SWPPP Team could begin using it to track SWPPP implementation.

## **II. Inter-Agency Coordination**

Beginning in January 2019, DOEE held quarterly internal and District-wide meetings to share progress on the Program, identify next steps, and build momentum and a sense of urgency among agencies. During the reporting period, DOEE held internal meetings on October 31, 2019, and January 21, April 30, and July 23, 2020. DOEE held meetings with Program facility managers and their supervisors on February 12 and May 14, 2020. The first quarter's meeting with supervisors was skipped due to a two-day MSGP workshop and a four-hour SWPPP workshop that many supervisors also attended, and DOEE felt a third meeting was not necessary. The third quarter meeting was substituted for agency-specific meetings and a series of P2 Database trainings.

### PARAGRAPH 49.E.IV. SUMMARY OF REGULATORY INSPECTIONS

### 1. NPDES COMPLIANCE INSPECTIONS

Since October 1, 2019, DOEE has not performed any regulatory NPDES compliance inspections of municipal facilities. EPA Region 3 inspected one industrial facility on August 11, 2020. The inspection report was not received during the reporting period, but shortly thereafter in early October 2020. At the time of this report, the District had submitted a response to EPA inspectors' observations during the inspection.

Nineteen of the 23 facilities have obtained coverage under the MSGP, and four additional facilities have submitted Endangered Species Criterion C Worksheets and Notices of Intent for MSGP coverage, and are in the process of negotiating coverage with EPA Region 3.

### 2. BMP MAINTENANCE INSPECTIONS

Since October 1, 2019, DOEE has inspected structural BMPs constructed at twelve separate facilities. Of the twelve inspections conducted, two of the inspections found BMPs in good condition, three inspections found BMPs in fair condition, five of the inspections found BMPs to be in poor condition, and during two inspections, BMPs were not located or had been removed.

As described in the following section, DOEE is working with District agencies to correct deficiencies at facilities found to be 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.

DOEE shared the available stormwater management plans with agencies responsible for the Program facilities during the first Program Year. 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 made its third-party contractor available to DPW, 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 practices at several locations, including a new StormFilter proprietary SCM at an industrial facility.

### **CERTIFICATION**

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

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

## **O&M PLAN ANNUAL REPORT ATTACHMENTS**

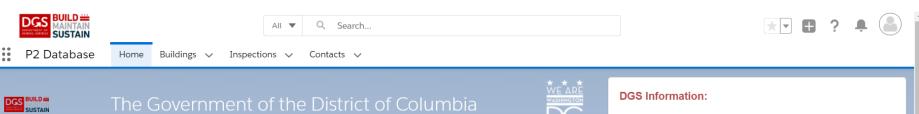
**Attachment 1.** P2 Database Documents, including GIS protocol, areas and structural BMPs, and screen shots of the P2 Database landing page and example facility home page.

Attachment 2. MSGP visual stormwater inspection training handout

Attachment 3. Mock inspection form used during site walkthroughs

### P2 Database Screenshots

### P2 Database Landing Page





### STORMWATER RESOURCES

#### General Resources:

- 1. Find out where stormwater from a specific location goes, the MS4 or CSS and to which water body: Click Here
- 2. District MS4 Permit: Click Here
- 3. Stormwater Regulations: Click Here
- 4. Spill reporting:
  - a. Emergency: 911 immediately if the spill cannot be controlled or goes into the MS4 or directly into a waterway
  - b. Non-Emergency: 202-535-2600 within 5 business days to report all spills and leaks that are able to be contained and cleaned up before they reach a storm drain or leave a facility.
  - c. When to report spills to the federal government: Click Here
    - i. \*Note: DOEE typically will report these spills on behalf of a District Government facility. Coordinate with DOEE prior to reporting by calling 911 or the non-emergency number.
- 5. Useful Publications:
  - a. Soil and Erosion Control Handbook: Click Here
  - b. BMP inspection and maintenance, and professional BMP maintenance service providers: Click Here
  - c. GreenWrench Pollution Prevention Guidebook for Automotive Repair Professionals: Click Here

### Resources for Industrial Facilities in the MS4:

- 1. Industrial Stormwater Permit Website: Click Here
- 2. Reporting websites for industrial facilities:
  - a. Permit application and Annual Report submissions at NeT-MSGP: Click Here
  - b. Discharge Monitoring Reports (lab results) submissions at NetDMR: Click Here
- 3. EPA Stormwater Monitoring Guide for industrial activities: Click Here
- 4. EPA sector-specific fact sheets: Click Here
- 5. Look up threatened and endangered species a facility may impact:
  - a. Aquatic-Dependent species reports from the U.S. Fish and Wildlife Service (FWS): Click Here
  - b. Aquatic species map from the National Marine Fisheries Service (NMFS) Click Here
- 6. Historic Property Look up: Click Here
- 7. EPA Enforcement and Compliance History Online for permit status and compliance history for permitted facilities: Click Here

- For Work Order related issues you can call 202 and leave a voicemail or email @dc.gov
- For any technical issues with the system, you can call 202-

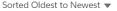


### **DOEE Information:**

- 1. Main desk can route your call: 202-535-2600
- 2. Pollution Prevention (P2) Team provides compliance assistance for the District's municipal facilities

List of current DOFF P2 Team Members with contact Information for each





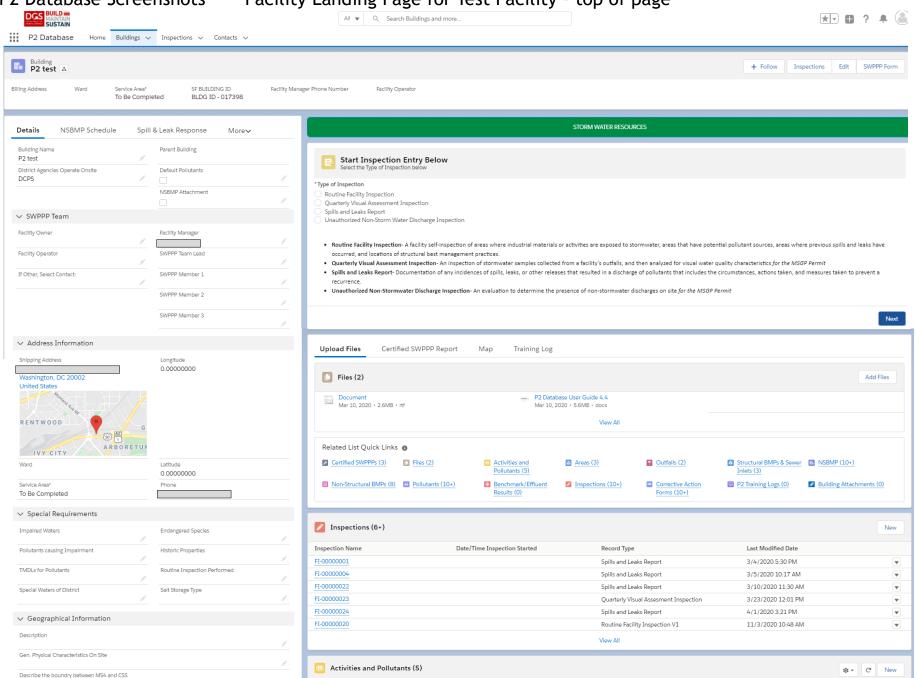
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G



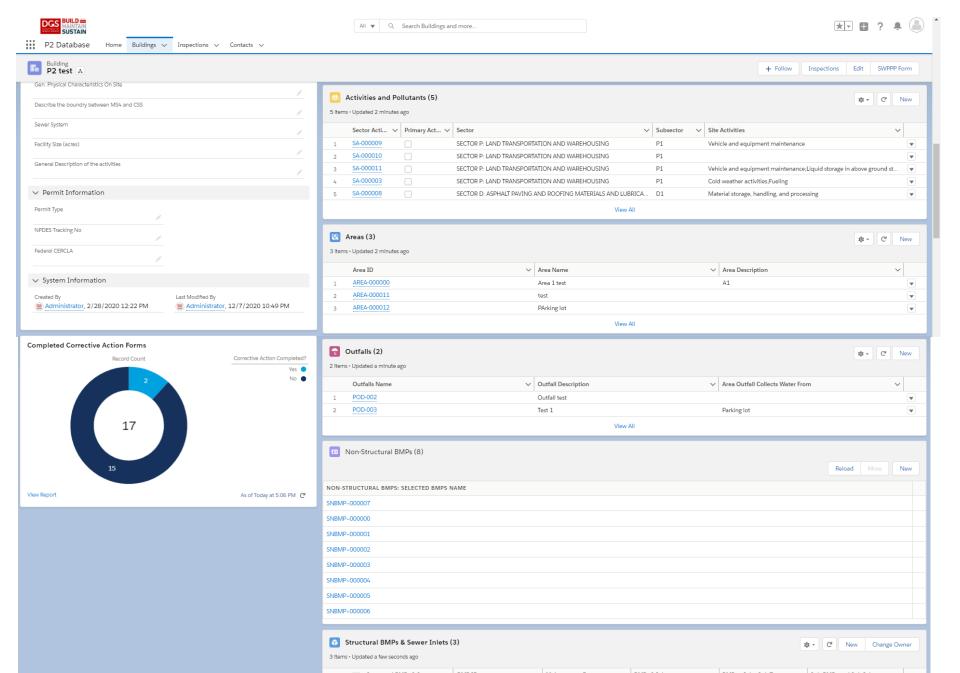


# P2 Database Screenshots Facility Landing Page for Test Facility - top of page

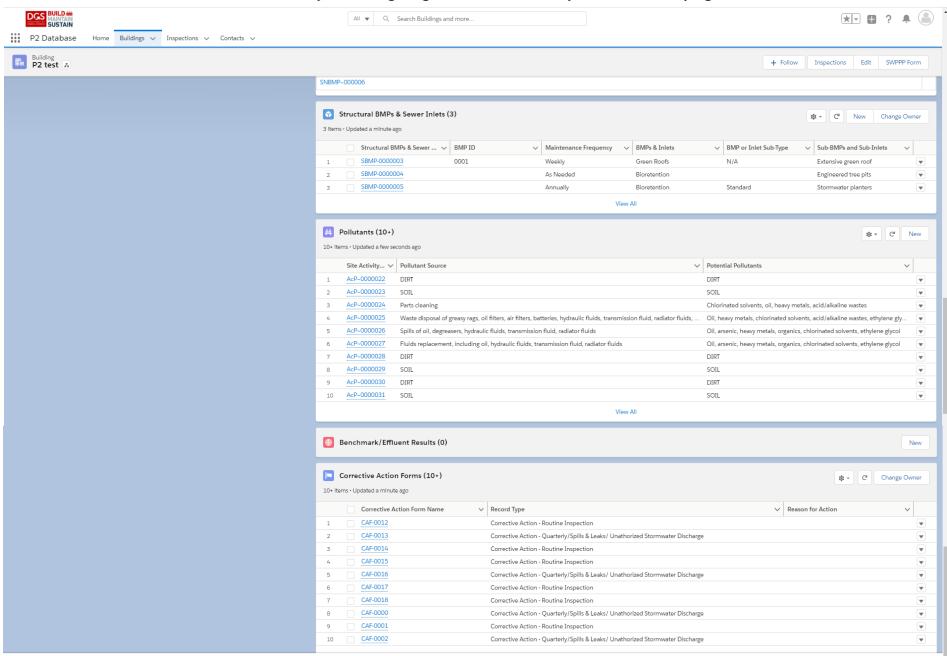


### P2 Database Screenshots

## Facility Landing Page for Test Facility - middle of page

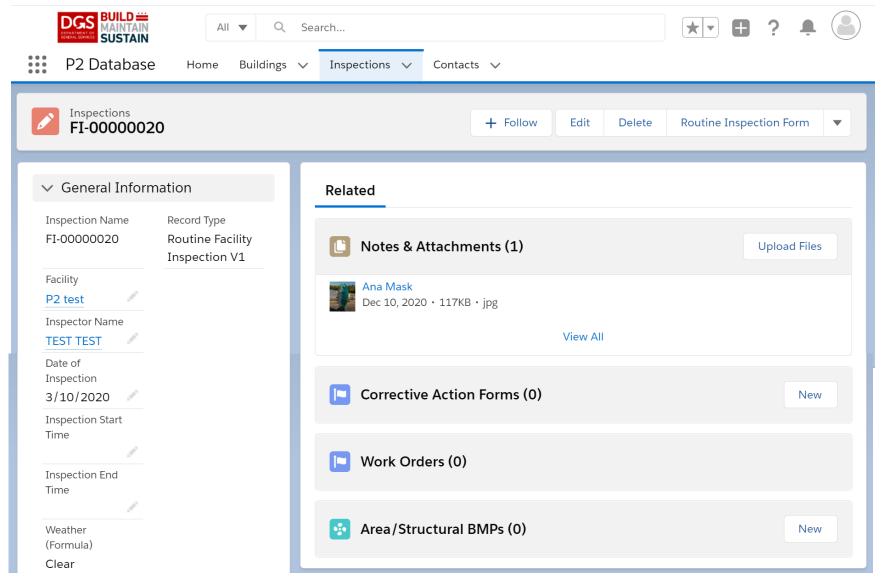


### P2 Database Screenshots Facility Landing Page for Test Facility - bottom of page



### P2 Database Screenshots

### Inspection Report for Test Facility

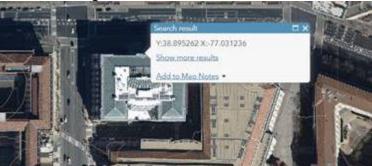


The rest of page provides a report from the inspection of the P2 Test facility that identifies for each area of the facility any spills/leaks, trash, tracking of dirt/sediment, that materials are elevated/covered/labeled, presence of any unauthorized discharges, actions needed/taken, and any notes from the inspection. No corrective Actions or work orders were created from this fake inspection report (the number next to "Corrective Action Forms" and "Work Orders" is zero) and no Structural BMPs were inspected.

### General GIS Data Collection Protocols for the P2 Database

The P2 Database allows users to mark locations on an interactive map to make self-inspections easier by marking the location of control measures, past spills, and other important facility features. Please follow the following suggestions when adding geographic coordinates to the P2 Database.

- 1. Enter GIS data using Decimal Degrees (e.g. 38.895262, -77.031236). Decimal Minutes Seconds should not be used (DMS, e.g. 38° 53' 42.9432" N, 77° 1' 52.4496" W).
  - a. Detailed instructions on how to determine the latitude and longitude of an object or feature using Google Maps can be found at: <a href="http://www.wikihow.com/Find-the-GPS-Coordinates-of-an-Address-Using-Google-Maps">http://www.wikihow.com/Find-the-GPS-Coordinates-of-an-Address-Using-Google-Maps</a>
  - b. The last pages of this handout has a guide for finding coordinates using the District's GIS Viewer for Impervious Areas in the District and Google Maps.
- 2. When manually entering GIS coordinates, *include at least six decimal points* to ensure location accuracy. Otherwise the point may not show up where the feature is located.
  - a. Example: Coordinates, 38.895262, -77.031236, take you to the main entrance of the Wilson Building.



b. If only three decimals (38.895, -77.031) are entered, the point moves southeast to a different location within the Wilson building.



- 3. Place a point as close to the center of each feature as possible.
- 4. Record each observed instance encountered.
- 5. Do no record mobile items, such as vehicles, as permanent features.

- 6. Take at least one representative photo of each feature, ideally a photo that puts the feature into context with prominent site features.
- 7. Provide a clear description of what the point denotes in the description/notes section. Description should include:
  - a. What feature the location marks;
  - b. A brief description of what the feature looks like;
  - c. A brief description of the feature's location relative to prominent site features; and
  - d. Where necessary, a description of the feature's boundaries.
  - e. Example: "Secondary containment berm that runs the length and width of the AST just east of the storage building."

### **HOW FIND COORDINATES**

Method GIS Viewer		eps	Screen	n Sh	ots		
	1.	•			r Impervious Areas in the	District	Modify Map & Sign In
for		ImperviousMap_GIS <sup>1</sup>	Details	Basemap	Share 🖨 Print 🗸	Measure   ▼ Find address	s or place Q
Impervious			€ E		+	Find area, length, or location	
Areas in the	2.	Enter the facility's address	DOEE Best Manag Practices	gement	급 -	Measurement Re	
District		in the search bar in the upper	Rainwater Ha     Tree Planting			Latitude 38.897738	Longitude -76.92666
District		right.	Preservation  Bioretention			0 38.897468	-76.926749
		_	<ul> <li>Proprietary Pr</li> <li>Green Roof</li> </ul>	ractice			
	3.	Click on the measuring tool	<ul> <li>Bayscaping</li> <li>Permeable Pa</li> </ul>	avement	Bu		O (w)
		( )and select the	<ul><li>Infiltration</li><li>Filtering Syst</li></ul>	em	McHC4		
		"Location" tool ( ). Make	Impervious S Disconnectio		C. C. K.		
		sure the measurement is set	Paved Surfaces in	Parcels			
		to "Degrees" (not DMS).	larger than 9 Sq M 2017 Paved Drive	leters			Foote St
		to Degrees (not DWIS).	Help : Trust Center : Contact Ein : Report A	Lagal . Nouse .	0 30 60R		Res (CSI)
	4.	Click on the map to set the	Conscius				// /3 ( )
		coordinates in the table					
		under "Measurement		Eind	area, length, or le	nontion.	×
		Result." The row next to the		rind	area, length, or it	ocation	
		open circle will have the		11111	⇔ 🗐   De	grees 🔻	
		coordinates. The row next to		88			
		the arrow/pointer is where		_	Measure	ement Result	angitudo
		your pointer/curser is located		h-	38.896		ongitude 5.927253
		(i.e. it follows you around).					
		Copy and paste the		0	38.897	468 -76	5.926749
		coordinates into the P2					
		Database.					

<sup>&</sup>lt;sup>1</sup>GIS Viewer for Impervious Areas in the District:

http://dcgis.maps.arcgis.com/home/webmap/viewer.html?webmap=749dadd13b3f4bb39767aad5b4d96731

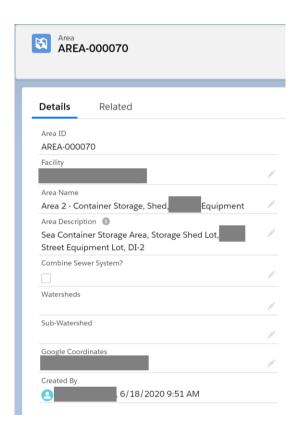
Method	Steps	Screen Shots
Google Maps in Web Browser	<ol> <li>Drop a pin by clicking of tapping on the location that needs a coordinate. The coordinates appear in the white pop-up box.</li> <li>Click on the coordinates (they turn into blue hyperlinked text when the mouse hovers over them).</li> </ol>	Executing Rd ME  Beauting Rd ME  Consents Review 5 from  Accounts of Management of Management of Contract of Contract of Contract of Contract of Management
	3. When you click on the coordinates, they will show up in the search window on the left-hand side of the page written as "latitude, longitude." Copy and paste the coordinates into the P2 Database. Keyboard shortcuts to copy and paste.  Copy = <control> C Paste = <control> V</control></control>	38-55/48.6"N 76-57'47.0"W  38-95625, 76-963053  38-53'48.6"N 76-57'47.0"W  38-95625, 76-963053  O
Google Maps Application (phone or other mobile devise)	<ol> <li>Drop a pin by clicking of tapping on the location that needs a coordinate</li> <li>Drag the grey bar upwards to reveal additional information on the point, including its coordinates. In other words, swipe upwards at the grey bar.</li> </ol>	Dropped pin  Burnham Barrier  Barrier  Benning Rd  Anacostio Ricewalk Trail  Dropped pin  Near Burnham Barrier, Washington, DC  16 min

Method	Steps	Screen Shots
Method Google Maps Application (continued)	3. Double tap to highlight for copying, or write down GPS coordinates and enter into P2 Database (latitude, longitude)	Screen Shots  ✓ Dropped pin   →   DIRECTIONS START SAVE LABEL  Measure distance  ✓ V2WP+PQ Washington, District of Columbia  (38.8968215, -76.9630332)
		Add a missing place

Utilizing P2 database for inspections- Areas and Structural BMPs

### Areas:

- Definition- a defined part/location of a facility to help breakdown inspections and walkthroughs
- Some areas are already called out on a site map and SWPPP
- **Area Name\*** This will be the choice for the inspections, so choose words in this field to that will be a visual help for whoever will be inspecting.
- Area Description- Provide more information about the area and what is included
- Watershed- Can be found in the SWPPP
- Google Coordinates- Pick a middle spot in the area to get coordinates
- Example in P2 database:



### Structural BMPs and Sewer Inlets-

- **Definition-** Structural Best Management Practices- Structural stormwater BMPs are structures that divert, drain, or filter stormwater runoff, such as berms, storm drains, rain gardens, swales, dry or wet ponds, oil/water separators, cisterns, and filtration. Sewer inlets and trench drains while they may not be structural BMP's also need to be inspected and maintained so are included in this dataset.
- Descriptions and Maintenance schedules of structural BMPs are in the SWPPP.
- **BMP ID\*** This will be the choice for the inspections, so choose words in this field to that will be a visual help for whoever will be inspecting.
- Google Coordinates- Pick closest point to the Structural BMP as possible to get coordinates
- Examples in P2 database:



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Details Related Structural BMPs & Sewer Inlets Name SBMP-0000103 Facility BMP ID Sand Filter BMPs & Inlets Filtering System Sub-BMPs and Sub-Inlets Three-chamber underground sand filter BMP or Inlet Sub-Type N/A Installation Date 8/5/1996 Manufacturer Info and Specs From Stormwater Management Plan, sheet S2: Notes: 2) PROVIDE 6" THICK LAYER OF COARSE GRANULAR FILL ON COMPACTED STRUCTURAL FILL BELOW THE BOTTOM OF THE STRUCTURE 5) PRECAST SAND FILTERS, SUCH AS "ROTONDO" ARE ACCEPTABLE Maintenance Frequency Bi-Annually

Structural BMPs & Sewer Inlets Facility Name BMP ID Trench Drain (Facility Entrance) BMPs & Inlets Sewer Inlet to Combined Sewer System Sub-BMPs and Sub-Inlets Trench Drain BMP or Inlet Sub-Type No Inlet Filter required Installation Date 8/5/1996 Manufacturer Info and Specs Maintenance Frequency Daily DOEE approved SWMP No: 69 Notes/Comments Periodic checking of site and storm drains to collect stray debris on-site to prevent blockage of stormwater drains. Area will also be inspected for perimeter cleanliness, oil, fuel, anti-freeze, chemical spills, and litter. Daily inspections and debris pickup. Continuous.

Google Coordinates

# **Quarterly Visual Monitoring for the MSGP Permit**

Once each quarter for the entire MSGP permit term, a stormwater sample from each point of discharge is collected and a visual assessment of each of these samples is then conducted. Due to the District being an area subject to snow, at least one quarterly visual assessment must capture snowmelt discharge.

Q1:January 1 – March 31

**Q2:**April 1 – June 30

Q3:July 1 – September 30

Q4:October 1 - December 31

This visual assessment is conducted:

- Within the first 30 minutes of an actual discharge from a storm event. If a sample cannot be taken in the first 30 minutes, it is collected as soon as practicable after the first 30 minutes and the reason why it was not possible is documented. Snowmelt samples are taken during a period with a measurable discharge from site.
- In a clean, colorless glass or plastic container and is examined in a well-lit area.
- After storm events, or discharges that occur at least 72 hours (three days) from the previous discharge. The 72-hour (three-day) storm interval does not apply if facility documents that less than a 72-hour (three-day) interval is representative for local storm events during the sampling period.
- Using the "Quarterly Visual Assessment Form"

The following water quality characteristics are examined in each sample:

Color	Settled solids			
Odor	Suspended solids			
Clarity	Foam			
Floating solids Oil sheen				
Any obvious indicators of stormwater pollution				

## **Steps to Prep:**

- 1. Check the weather to get ready and to make sure it's been three days since last rain event. https://w1.weather.gov/data/obhistory/KDCA.html
- 2. Gather your supplies.
  - Glass or Clear plastic bottles (labelled with date)
  - Safety equipment (i.e. gloves)
  - Camera to document
- 3. Get access to / Block off area where sampling is going to occur

# **References:**

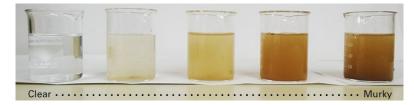
- https://mde.state.md.us/programs/Permits/WaterManagementPermits/Documents/ Marina%20GP/10MA QVMF.pdf
- https://www3.epa.gov/npdes/pubs/msgp monitoring guide.pdf





# **Determining the Characteristics:**

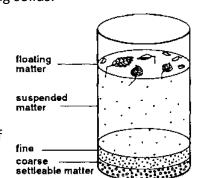
- Color: Record the best description of the sample color. Is it Yellow? Brown? Red? Gray?
- <u>Clarity:</u> This refers to how cloudy the sample is. It is usually an indication of fewer pollutants in the water if the sample is clear or transparent. If the clarity has changed since the last sample, try to identify what might have caused this to happen.
  - Clear Sample doesn't block any light; can be seen through regardless of color.
  - Cloudy Sample blocks some light; objects not clear but can be identified looking through the sample.
  - Very Cloudy Sample blocks most light; objects cannot be identified looking through the sample.
  - Opaque Sample blocks all light; objects cannot be seen when looking through the sample.



Oil Sheen: Record whether or not an oil sheen is present. If a film of iridescent color is noted on the surface of the sample or a rainbow effect appears to be floating on the surface of the water, this usually indicates oil is present.



- Odor: If sample has no odor other than natural rainwater or snowmelt, write "NO" on the visual monitoring form. Note the presence of any of the following odors if detected, such as gasoline, diesel, oil, solvents, garbage, fishy, sweet/sugary, any other unusual odors not normally present in clean runoff from the area sampled.
- **<u>Floating Solids:</u>** A contaminated flow may contain solids or liquids floating on the surface. Identifying floatables can aid in finding the source of the contamination. Examples of floatables are spoiled food products, oils, plant parts, solvents, sawdust, foams and fuel. Give a general description of the type of floating solids present (wood chips, leaf debris, algae, etc) in the general comments section for each sample. Identify amount of floating solids
  - High More than 20% of the surface of the sample is covered with floating solids.
  - Moderate Less than 20% of the surface of the sample is covered with floating solids.
  - **Slight** Only a few floating particles observed on the surface of the sample.
  - None No floating solids present on the surface of the sample.
- Suspended solids: Record whether or not suspended solids are present in the sample. Suspended solids are particles floating inside the column of water, not on top, and may contribute to changes in water color or clarity.
- Settled Solids: After 30 minutes has passed, give a general description of the type of settled solids present (sand, decayed plant matter, rust particles, etc.)
- **Foam:** Shake the bottle gently. Record foam results on the form:
  - None Most bubbles break down within ten seconds of shaking; only a few large bubbles persist longer than ten seconds.
  - Moderate Many small bubbles are present but these bubbles persist for less than two (minutes) after shaking.
  - High Many small bubbles are present and they persist longer than two minutes after shaking.





Detail any concerns, corrective actions taken and any other indicators of pollution present in the sample. This should include the identified source if there are visible indicators present in the sample.

Stormwate	r Pollution	Preve	ntion	Mock-	Inspection Report	
Name and Location of Facility		Date: Attendees	:			
SWPPT						
SWPPT Leader: SWPPT Members:						
Compliance History						
	Date	List of viol	lations reco	orded		Still Present?
Most Recent NPDES Inspection						
Most Recent BMP Maintenance Inspection						
Other violations, such as illicit discharges						
Facility Operations						
Enville Countries Description		Yes	No	N/A	Notes/Comments	
Facility Operations Description						
Does the facility have a NPDES Permit? If yes, MSC	GP or Individual					
Permit number.						
Facility Conditions:		<u> </u>		 		
Odor present		ļ	ļ			
Excessive dust/dirt				 		
Stressed vegetation		 	! ! !	 		
Evidence of spills/leaks			! ! !	I I I		

Structural BMPs	Yes	No	N/A	Notes/Comments
When was the last time the BMPs were maintained?				
Are BMPs Properly Maintained				
Other BMPs	Yes	No	N/A	Notes/Comments
Is Hazardous Waste, Universal Waste, and Used Oil stored properly?				
Are they labeled properly and in sealed containers?				
Does the facility have floor drains that drain to the MS4?				
If so, has the facility taken steps to prevent fluids from entering them?				····
Does the facility dispose of fluids? If so, how?				
Does the facility have a spill and leak response				
plan?				
Is there evidence of chemicals and other fluids in				
sinks or other drains?				
Is there evidence of pollution in runoff or other				
stormwater discharges?				
Is secondary containment provided for materials that can spill?				
Describe housekeeping practices:				

Recordkeeping and Monitoring	Yes	No	N/A	Notes/Comments
SWPPP is available and up-to-date				
Self-inspections are regularly conducted				
Corrective actions are tracked and recorded				
A spill and leak log is maintained				
Employee training records are available are current				
Receipts for hazardous waste disposal, BMP maintenance, and other				
efforts are kept with Facility SWPPP				
MSGP Facilities:				
Facility conducts visual assessment of stormwater discharge				
Facility conducts analytical monitoring (e.g. benchmark and impaired waters)		••••••		
Annual Reporting has been completed				1
Other Documentation				
Final Summation	Good	Fair	Poor	Notes/Comments
Overall condition of the facility				
Overall condition of facility records				
Areas of concerns				
, a cas or concerns				

Mock-Inspection Form			
NOTES:			