



Water & Sewerage Department

STORMWATER MANAGEMENT PLAN

April 2023 (V2 – revisions dated March, 28 2024)

Detroit Water and Sewerage Department
STORMWATER MANAGEMENT GROUP
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Table of Contents

1.0	INTRODUCTION.....	1
1.1	Purpose.....	1
1.2	Regulatory Requirements.....	1
1.3	Affected City Departments	1
2.0	DETROIT’S EXISTING STORMWATER CONVEYANCE SYSTEM	2
2.1	Stormwater Conveyed through Combined Sewers	2
2.2	Municipally Owned Separate Storm Sewers	2
3.0	STORMWATER MANAGEMENT PLAN	5
3.1	Implementation Efforts	5
3.1.1	BMP No. 1: Public Participation/Involvement Program (PPP).....	5
3.1.2	BMP No. 2: Public Education Program (PEP)	6
3.1.3	BMP No. 3: Illicit Discharge Elimination Program (IDEP).....	7
3.1.4	BMP No. 4: Construction Stormwater Runoff Control	9
3.1.5	BMP No. 5: Post-Construction Stormwater Runoff Control.....	9
3.1.6	BMP No. 6: Pollution Prevention/Good Housekeeping Program	11
3.1.7	Total Maximum Daily Load (TMDL) Implementation Plan.....	13
4.0	IMPLEMENTATION EFFORTS FOR THE UPCOMING PERMIT CYCLE....	20
4.1.1	Record Keeping/Schedule/Frequency/Responsible Agency.....	20
5.0	SUMMARY.....	25

Appendices

- A. DWSD Enforcement Response Procedure
- B. MS4 Catch Basin Spreadsheet

1.0 INTRODUCTION

1.1 Purpose

This Stormwater Management Plan (SWMP) has been prepared to fulfill the requirements of the National Pollutant Discharge Elimination System (NPDES) permit issued to the City of Detroit for the stormwater discharged from the Municipal Separate Storm Sewer System (MS4).

1.2 Regulatory Requirements

The City of Detroit's MS4 stormwater discharges are currently regulated by permit NO. MI0060223. This permit is set to expire on October 1, 2023. The SWMP has been revised for the April 2023 permit renewal application. There are no nested jurisdictions in the City of Detroit.

The permit specifies that permittees are to develop, implement, and enforce a SWMP to reduce the discharge of pollutants from the drainage system to the Maximum Extent Practicable (MEP). The MEP requirement must be met by implementing Best Management Practices (BMPs) to address the six "minimum measures" including:

1. Public Involvement/Participation Program (PPP)
2. Public Education Program (PEP)
3. Illicit Discharge Elimination Program (IDEP)
4. Construction Stormwater Runoff Control
5. Post-Construction Stormwater Runoff Program
6. Pollution Prevention and Good Housekeeping Program

1.3 Affected City Departments

Discharges from municipally-owned storm sewers within the City of Detroit are not the responsibility of a single municipal department or agency. Rather, several City departments have been actively involved in the development and implementation of the SWMP, with the Detroit Water and Sewerage Department serving as the lead agency with the responsibility of coordinating the efforts to be undertaken to comply with the NPDES permit. Other participating city agencies include the General Services Department (GSD); the Planning and Development Department; the Department of Public Works (DPW); the Buildings, Safety Engineering and Environmental Department (BSEED); the Greater Detroit Resource Recovery Authority; and the Law Department.

2.0 DETROIT'S EXISTING STORMWATER CONVEYANCE SYSTEM

2.1 Stormwater Conveyed through Combined Sewers

The vast majority of stormwater runoff within the City of Detroit is conveyed through the City's combined sewer system which uses a single pipe to convey sanitary waste from residences, industries and businesses, along with stormwater drainage. The combined sewer system services nearly the entire population of the City of Detroit, with a service area estimated at 139 square miles. The combined sewers convey all dry weather flow, and a large portion of the wet weather flow to the wastewater treatment plant at 9300 W. Jefferson in accordance with NPDES permit MI0022802.

Within the combined sewer system service area, there are several small tracts where storm sewers have been constructed and are utilized to convey stormwater. However, these storm sewers reconnect to the combined sewer system at a downstream point and do not discharge directly to receiving waters. As such, they are an integral part of the City's combined sewer system and the resulting discharges of combined sewage through the permitted CSO outfalls are authorized by NPDES Permit MI0022802.

2.2 Municipally Owned Separate Storm Sewers

Detroit's MS4 has a very limited service area consisting primarily of parkland with river frontage, and a small amount of roadway drainage from city streets adjacent to the Rouge River or from bridges over river crossings. Sixty-five (65) residential homes are included in the MS4 area.

A comprehensive investigation was conducted prior to the current permit cycle, as documented in the October 2019 SWMP, to identify all municipally-owned storm sewer outfalls. Since the last permit cycle, four new municipally-owned storm sewer outfalls were identified. In total, there are thirty-eight storm sewer outfalls that have been identified as part of the City's MS4 inventory. All known storm sewer discharges are shown in Table 1.

The location of all MS4 storm sewer outfalls are displayed on Figure 1. As shown, these storm sewers serve an area which includes portions of Belle Isle and the roads around the island, portions of Rouge Park and the city streets which traverse that area, portions of Eliza Howell Park, portions of Riverside Park, and a few roadways adjacent to the Rouge River and Detroit River.

Table 1: CITY OF DETROIT MS4 OUTFALL INDEX

Outfall ID	Receiving Water	Location	Type	Land Use	Estimated Surface Drainage Area (Acres)
Detroit River and Tributaries					
D1	Detroit River	Lakewood East Park (3308) Bridge at Riverside Dr.	Outfall	roadway	0.4
D2	Detroit River	Belle Isle Storm Pump Station No. 7	Outfall	roadway/park	1.59
D4	Detroit River	Behind athletic building, Lotier Way - Pump Station	Outfall	athletic field	3.0
D5	Detroit River	Lotier Way behind former zoo	Outfall	lawn	0.08
D7	Detroit River	DRD service yard	Outfall	service yard	0.3
D8	Detroit River	Strand St/Picnic Way, east of bridge	Outfall	roadway	0.59
D16	Detroit River	Lake Tacoma off Strand, west of sign	Outfall	roadway	0.0
D17	Detroit River	Strand St. behind casino	Outfall	roadway	0.21
D22	Detroit River	Mt. Elliott Park (#3)	Outfall	park; lawn	3.4
D new-1	Detroit River	Belle Isle, north side of Strand, south side of Lake Tacoma	Outfall	roadway	0.26
D new-2	Detroit River	Belle Isle - north side of the Strand, 150 ft east of bridge to Casino	Outfall	roadway	0.3
D new-3	Detroit River	Belle Isle - north side of the Strand, east of bridge to Casino	Outfall	roadway	0.26
D new-4	Detroit River	Belle Isle - north side of the Strand, 525 ft east of the bridge to Casino	Outfall	roadway	0.2
D new-5	Detroit River	Belle Isle - north side of the Strand, approx. 530 ft east of bridge	Outfall	roadway	0.27
D new-6	Detroit River	Belle Isle - north side of the Strand, approx. 830ft east of bridge to casino	Outfall	roadway	0.3
D new-7	Detroit River	Belle Isle - north side of the Strand, ~990 ft east of bridge to Casino	Outfall	roadway	0.21
D new-8	Detroit River	Belle Isle - north side of the Strand, ~1140 ft east of bridge to casino	Outfall	roadway	0.2
D new-9	Detroit River	Belle Isle - north side of the Strand, ~870 ft west of Picnic Way	Outfall	roadway	0.23
D new-10	Detroit River	Belle Isle - north side of the Strand, ~720 ft west of Picnic Way	Outfall	roadway	0.3
D new-11	Detroit River	Belle Isle - north side of the Strand, ~590 ft west of Picnic Way	Outfall	roadway	0.21
D new-12	Detroit River	Belle Isle - north side of the Strand, ~450 ft west of Picnic Way	Outfall	roadway	0.3
D new-13	Detroit River	Belle Isle - north side of the Strand, ~300 ft west of picnic way	Outfall	roadway	0.76
D new-14*	Detroit River	Riverside Park - West Side	Outfall	park	4.1
D new-15*	Detroit River	Riverside Park - East Side	Outfall	park	5.40
D23*	Detroit River	Ambassador Bridge and West Grand Boulevard	Outfall	parking	1.6
Rouge River and Tributaries					
R1	Rouge River	Glenhurst Ave. at Grayfield Ave.	Outfall	roadway	3.0
R10A-new	Rouge River	Located at the south end of Circle drive in Eliza Howell Park	Outfall	park; lawn; roadway	16.25
R14	Rouge River	Immediately north of Spinoza Dr. on west bank	Outfall	roadway	0.2
R14A	Rouge River	Immediately south of Spinoza Dr. on west bank	Outfall	roadway	0.27
R16	Rouge River	Immediately north of Joy, on east bank	Outfall	roadway	8.9
R17	Rouge River	Parkland Ave @ Constance Rd. south of Joy Rd.	Outfall	roadway	11.01
R18	Rouge River	Tireman Ave at Spinoza, south of Joy Rd.	Outfall	roadway	1.5
R18A-New	Rouge River	New construction on Tireman Bridge	Outfall	park; lawn; roadway	3.20
R22	Rouge River	Rouge Park - Spinoza Ave near Tireman	Outfall	roadway	6.4
R23	Rouge River	Rouge Park - Spinoza Ave near Tireman	Outfall	park; lawn	2.38
R29	Rouge River	North end of Lahser Rd. - south bank of river	Outfall	parking lot	3.5
R35	Rouge River	Ridge Road south of McNichols Road (new)	Outfall	road; residential lots	0.63
R36*	Rouge River	North end of Lahser Rd. - south bank of river	Outfall	parking	4.8
R37*	Rouge River	Ridge Road south of McNichols Road (new)	Outfall	parking	7.18
R38*	Rouge River	Rouge Park Golf Course	Outfall	residential	5.7

*Outfalls identified and acknowledged during previous permit period. DWSD notified EGLE of outfalls via MiEnviro, "MS4 Outfall or Point of Discharge Identified, Constructed, or Installed After Permit Issuance" forms.

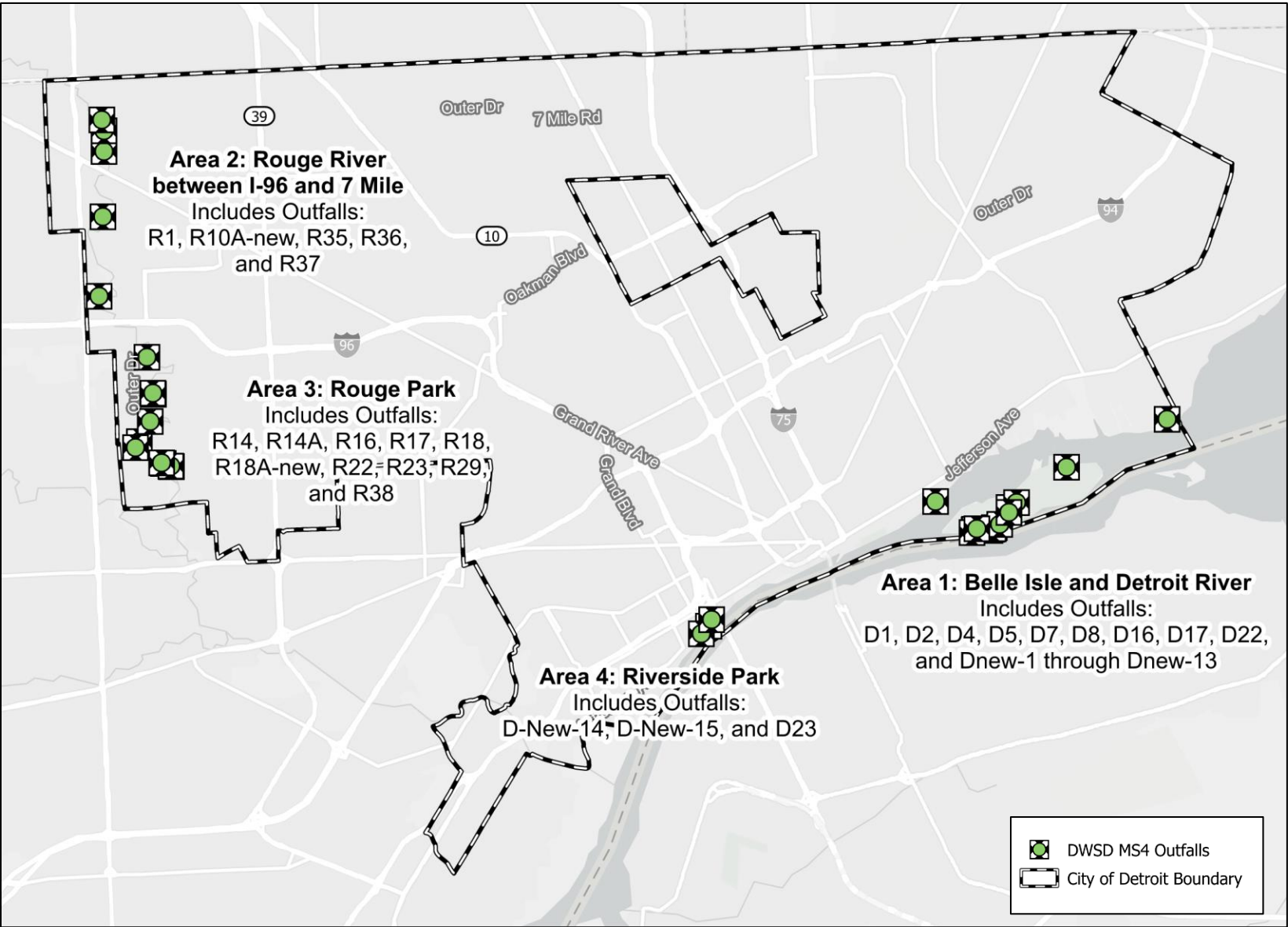


Figure 1: INDEX MAP OF KNOWN MS4 OUTFALLS

3.0 STORMWATER MANAGEMENT PLAN

The City of Detroit has developed and is implementing a SWMP which is designed to reduce the discharge of pollutants from the drainage area tributary to the City's MS4 to the maximum extent practicable. The program includes the development and implementation of BMPs to address the measures set forth in the general stormwater NPDES discharge permit. The program includes measurable goals for the BMP and establishes a schedule for implementation if the BMP is not already implemented.

After January 2016, the City of Detroit, with DWSD as the lead Department, assumed responsibility for managing the MS4 permit, including preparation of the Biennial MS4 Progress Report. DWSD is also the lead department for managing the Green Stormwater Infrastructure (GSI) Program required under NPDES Permit MI-0022802, providing coordination between these two programs.

The BMPs established for the SWMP reflect the specific conditions within the City of Detroit tributary to the MS4 system. A total of 40 storm sewer outfalls have been identified as part of the City's MS4 inventory, including 25 discharges to the Detroit River and its tributaries, and 15 discharges to the Rouge River. A majority of the storm sewer outfalls and tributary drainage systems are found within the City's owned parks including Belle Isle which is leased to the State of Michigan. Only 65 residential parcels are included in the MS4 area and there are no industrial properties. Of the City's total acreage of over 90,000 acres, approximately 99 acres make up the MS4 area.

Based on these land uses and the fact that the drainage area tributary to separated storm sewer discharges is extremely small, a limited number of stormwater BMPs are being implemented. A variety of stormwater management programs are implemented as part of the City's Long Term CSO Control Program, pursuant to Permit No. MI0022802, including the installation of GSI and implementation of a Post-Construction Stormwater Management Ordinance (Ordinance No. 2020-43). DWSD also implements a drainage charge program which includes an incentive for implementing GSI to reduce drainage charges.

3.1 Implementation Efforts

3.1.1 BMP No. 1: Public Participation/Involvement Program (PPP)

Due to the very small drainage area tributary to the City's storm sewer system and the fact that this property is mostly park areas, the SWMP did not include the creation of new organizations or forums for purposes of public involvement/participation. However, upon finalizing, DWSD will update the website with the SWMP and will allow for public comment.

The City of Detroit has plans to complete the following activities associated with public involvement:

1. Make SWMP available on DWSD's website for public viewing and public comment.

2. Prepare a public notice to inform the public of the new SWMP and provide a link to DWSD's website.
3. Continue to implement the drainage charge credit program so the public can participate in GSI projects within their parcel to receive credit.
4. Continue to work with SEMCOG staff to assist with public involvement/participation efforts on a variety of issues affecting Detroit including stormwater management and GSI.
5. Continuing to cooperate with and participate in the ongoing work and special events coordinated by Friends of the Rouge, Friends of Rouge Park, Friends of Belle Isle Park; Friends of the Detroit River and various Neighborhood Organizations. This effort includes communication on topics such as DWSD's ongoing GSI.

DWSD will log all comments made by the public in regards to the SWMP and will consider these comments for incorporation into an update. In addition, DWSD will track all properties with drainage charge credits for stormwater practices as a metric for evaluating the effectiveness of the PPP. The PPP contact information where the public can submit comments is the Stormwater Management Group (SMG), 6425 Huber Street, Detroit, MI 48211.

3.1.2 BMP No. 2: Public Education Program (PEP)

Due to the small area of the MS4 and limited activities within the MS4, the PEP will be completed via links on the website to educate the small number of residential homes in the City's MS4 area as there are no industrial properties in the MS4 area. It should also be noted that there are no septic tanks in the MS4 area.

DWSD will review the website periodically and update accordingly. Topics such as pet waste, car washing, lawn care, hazardous waste will all be topics on DWSD's website to educate and help minimize the potential for illicit discharges.

Under the PEP component, the City of Detroit has undertaken several BMPs including:

1. Encouraging reporting (e.g. illegal dumping or clogged drains) via the City web site and through a mobile application 'Improve Detroit' for reporting. People reporting issues are offered drop down menus and are asked to provide location, information that describes the concern, identify the license plate number of vehicles suspected of illegal dumping, and even upload photos to assist with follow up investigations. The same reporting can be done on Detroit's SeeClickFix website.
2. Distributing a flyer to all homes in the MS4 area every permit cycle to educate the residents on stormwater management within the MS4 area.
3. Conducting a survey every permit cycle to gauge the effectiveness of the PEP and other BMPs implemented as part of the SWMP. To determine effectiveness, questions will be asked that indicate behavior change or increased awareness to stormwater management.
4. Continuing the City's household hazardous waste collection program for proper disposal of pesticides, herbicides, fertilizers, motor vehicle fluids, batteries, cleaners and other potentially hazardous materials. This program is managed by the Greater Detroit Resources Recovery Authority and DPW. The service is free to City of Detroit residents.
5. Continuing the household compostable waste program with the regular trash and recycling

curbside collection service. Collectable yard wastes include leaves, grass clippings and twigs which are picked up on a biweekly basis.

6. Continued stenciling of new storm drain catch basins in the MS4 area in order to discourage dumping of wastes into drains which go directly to the river with no treatment.
7. Educating the general public regarding responsibilities and stewardship in their watershed and providing overviews of programs and initiatives to support stormwater management. DWSD website currently has information on the benefits of green infrastructure and Low Impact Development including information of the GSI practices that have been constructed in the City. More information is included in the Post Construction Stormwater Management Regulation and Stormwater Management Design Manual. DWSD also provides the annual progress report for DWSD's GSI Program.

Due to the small size and limited activities in the City's MS4 area, metrics for effectiveness of the PEP will include tracking and logging reports of illegal discharges into storm sewers and catch basins, and logging survey responses and maintaining a record of responses once received.

3.1.3 BMP No. 3: Illicit Discharge Elimination Program (IDEP)

The IDEP focuses on the development and implementation of measures to identify and effectively eliminate illicit discharges to the City-owned separate storm sewer system. The policy to establish DWSD's Enforcement Response Procedure (ERP) as it pertains to addressing illicit discharges and discharges from construction activities and/or post construction runoff control is included in **Appendix A**.

All known MS4 outfalls have been inspected using outside contractors to provide field investigation support to the City. Field observations were conducted during dry weather periods to determine whether any supplemental investigation, such as sampling and inspection is needed. The City's ordinance does not specifically address discharges or flows from firefighting activities and other non-stormwater discharges and/or flows. The City would like to request the time during the new permit cycle to revise the City's ordinance to include the exclusions of acceptable non-stormwater discharges as outlined in NPDES regulation.

The previous field investigation work has confirmed that the City owned storm sewers are not located in areas where drainage from septic tanks needs to be considered. The potential for a physical connection from a sanitary sewer to the storm sewer is also quite limited recognizing that most of the area tributary to the storm sewers is open land with no nearby combined or sanitary sewers. Very few of the 38 storm sewers are located within 100 feet of a combined/sanitary sewer. Given the very small probability of seepage infiltrating into the storm drainage system from a sanitary sewer or on-site sewage disposal system, Detroit has determined that establishing a new program to limit infiltration of seepage is not warranted or cost effective.

The activities associated with the IDEP BMP include the following:

1. Maintaining inventory of the MS4 City-owned storm sewers and drainage system. Updated maps of the confirmed MS4 outfalls will be stored at the DWSD SMG office at 6425 Huber, Detroit, Michigan, 48211. Maps will be updated as necessary once per permit cycle

- to incorporate new or newly discovered storm sewers.
2. Conducting training for City staff for activities such as the identification of illicit discharges and related efforts such as sampling, source detection and elimination in the event that this activity is performed by City staff.
 3. Conducting dry weather field observation through visual inspection of outfalls once every permit cycle. If flow is observed at an outfall or point of discharge, DWSD will conduct field screening for indicator parameters. Due to the small size of the MS4, outfalls will not be prioritized. The IDEP investigation will be documented and stored at the DWSD SMG office.
 4. If an illegal discharge or the presence of suspicious indicators (i.e. oil, odors, sewage) is observed during dry weather field observation, samples will be collected and analyzed for indicator parameters within 48-72 hours of flow discovery. Where appropriate, source investigation will be conducted of the upstream drainage area to look for possible cross-connections, sanitary sewer seepage, or other illicit connection sources.
 5. For procedures responding to illegal dumping or spills, once DWSD's SMG is notified, SMG will respond to the complaint within 48 hours and initiate field observations, follow-up screening and source investigations as appropriate. The schedule will be accelerated based on the complaint and/or threat to stormwater and receiving waters.
 6. The Improve Detroit app can be used to report releases of any polluting materials from the MS4. The public can also report releases by calling the Public Affairs at the number posted on the DWSD website, (313) 880-2812. The EGLE Warren District office (586-753-3700) will also be added to the website for calls during office hours.
 7. Taking corrective measures as appropriate to eliminate illicit connection sources. Due to the small area of the MS4 and that no illicit discharges have been found, the procedure will be to document and identify a root cause and corrective action. Depending on the root cause, corrective actions may include one or any of the following: re-sampling, source investigation, increased inspections, and/or increased training.
 8. DWSD personnel that conduct maintenance operations will receive IDEP training. A training module will be used that has been created by Wayne County. Training will be conducted for identified personnel once per permit cycle and within first year of hire for new staff. Because much of the MS4 area includes parks, the training module will be supplied to park personnel outside of DWSD.
 9. DWSD SMG personnel as well as DWSD catch basin inspectors and applicable GSD personnel will participate in a SEMCOG IDEP training so that they can be aware of potential illicit discharges.

DWSD will log all reports of illegal discharges and maintain records of completed Spill Notification & Complaint Reporting Forms. Results from the dry weather field screening and sampling are included in the Biennial MS4 Progress Report.

DWSD is currently working with the City's legal team to update the ordinance to include language which excludes prohibiting certain non-stormwater discharges. This language defines the non-stormwater discharges that are exempt from prohibition. Once the ordinance has been updated with this language, and no later than the next Biennial Report submittal (April 2026), DWSD will notify EGLE to confirm that the language has been adopted with reference to the specific Section(s).

3.1.4 BMP No. 4: Construction Stormwater Runoff Control

Construction projects disturbing one acre or more within areas tributary to the City-owned storm sewers are addressed through the City's BSEED site plan review process. The site plan review process also addresses projects less than one acre that are part of a larger common project that will disturb one acre or more. In addition, Wayne County continues to enforce its stormwater management program to any new and re-development projects within its jurisdiction of Detroit's storm sewer area. Wayne County is the current enforcing agency for Part 91 permits within the City of Detroit.

The supporting documentation for the Post-Construction Stormwater Management Plan Application requests a copy of all applicable state and federal permits related to erosion, water resource and stormwater management of the regulated project and therefore, if these permits are required by the landowner or recorded easement holder, they will be identified during the site plan review process and included along with other deficiencies in the correspondence with the applicant.

In addition, it should be noted that the Stormwater Management Design Manual, directs applicants to Wayne County's Soil Erosion and Sedimentation Control Program (SESC) program and well as the EGLE's Permit-by -Rule requirements.

The BMPs for construction site stormwater runoff control include:

1. Continue existing site plan review process which ensures that site plans adequately allow for soil erosion and sedimentation controls, as applicable.
2. Immediately notify the local SESC agency when soil and sediment are discharged to the MS4 from construction activity in violation of a soil erosion and sedimentation control permit. Refer to ERP. Notifications of observed discharge from construction projects can be submitted via the Improve Detroit application/website or by contacting the City's Public Affairs office at 313-880-2812.
3. Immediately notify the EGLE PEAS Hotline (1-800-292-4706) when soil, sediment, and other pollutants such as pesticides, petroleum derivatives, construction chemicals, and solid wastes are discharged into the MS4 area in a quantity that could negatively impact surface waters of the state.

DWSD will track and report on any SESC permits that are obtained for developments that are within the MS4 area or adjacent to the MS4 area such that construction could impact the MS4 tributary area. DWSD will also track all soil erosion complaints and follow-up actions taken for construction activities tributary to the MS4 area.

3.1.5 BMP No. 5: Post-Construction Stormwater Runoff Control

In November 2018, the City of Detroit adopted a post-construction stormwater management regulation citywide referred to as the Stormwater Management Regulations. These regulations

apply to any new or redevelopment which creates or replaces 0.5 acres (21,780 square feet) or more of impervious surface. The applicant may apply for alternative compliance if they demonstrate and quantify the presence of extraordinarily difficult site conditions. Extraordinarily difficult site conditions consist of: 1) sub-surface conditions limiting the infiltration (soil contamination or high groundwater); 2) Unique conditions that would require substantial re-grading; 3) Potential for off-site basement flooding; 4) conditions that require pumping of stormwater; and 4) other-department judgement. Options for alternative compliance include off-site migration and in-lieu fee. DWSD's Stormwater Management Regulation and Stormwater Management Design Manual is posted and maintained on DWSD's website.

The Stormwater Management Design Manual serves as a resource for applicants to ensure compliance with the stormwater management regulation and addresses the permit requirements (Part I.A.15.d.9) pertaining to stormwater controls for projects requiring a Part 91 construction permit issued by EGLE. In addition to general GSI design guidance, the manual provides information on the following:

- Applicability of the requirements for new development, redevelopment, and municipal projects including roadway improvements.
- Provides precipitation data, as well as acceptable methods for calculating runoff volumes and peak discharge rates.
- Design criteria for site drainage, roadway and parking lots, and flow conveyance of sewers, culverts, and open channels that will address water quantity and quality considerations. Design standards for both the combined sewered areas and the direct discharge areas.
- Overview of drainage design methodologies and acceptable practices.
- Stormwater control measure design considerations for systems such as green roofs, water harvesting, bioretention, tree plantings, porous pavements, and detention and retention basins.

As part of the City's permitting process for this regulation, DWSD permitting staff reviews development/redevelopment projects and has the authority to require site conditions for the management of stormwater. With the addition of the DWSD SMG, these projects are also now routed to DWSD's SMG and reviewed by this group specifically to address any stormwater concerns and to make sure stormwater management practices meet design criteria as outlined in the Stormwater Management Design Manual.

The BMPs for the post-construction stormwater management program for new development and re-development projects include the following:

1. As part of the site plan review and approval process, ensure that appropriate post-construction stormwater management practices are incorporated into any new or redevelopment project located in the MS4 area. This includes the requirement that a long-term maintenance plan be prepared and approved for any required stormwater controls.
2. At the completion of construction of all new and re-development projects for which post-construction stormwater runoff controls are required, Detroit reviews the project to determine whether it conforms to the terms and conditions of the approved site plan and

maintenance plan, including proper maintenance of any structural stormwater controls, if applicable.

To date, there have been no new or re-development projects initiated in the MS4 tributary area. DWSD will track all new or re-development projects within the MS4 tributary area and maintain record of all long-term maintenance plans.

3.1.6 BMP No. 6: Pollution Prevention/Good Housekeeping Program

The pollution prevention/good housekeeping efforts focus on minimizing the discharge of pollutants through the City's MS4 which are attributable to municipal operations. As required by the permit, the municipal properties which include one or more MS4 outfalls are listed below. The only structural stormwater controls at these properties are catch basins. As such, these facilities are prioritized all the same and given a low priority as low due to limited operations and activities.

- Rouge Park
- Belle Isle Park
- Mt. Elliott Park
- Lakewood East Park
- Charles Wright Academy of Arts and Science
- Riverside Park
- Portions of several roadways

Some permit requirements are not applicable or have limited applicability as follows:

- The maintenance of structural controls is limited to catch basins and 2 bioretention basins since no other structural controls exist in the storm sewer area. There are 118 catch basins in the City's MS4 area. The catch basins for each outfall within the regulated area are listed in **Appendix B**. The 2 bioretention basins are located along the Rouge River near the Charles Wright Academy of Arts and Science (at Outfall R36 and R37). Catch basin and bioretention locations are in DWSD's GIS system are stored at the DWSD SMG office at 6425 Huber, Detroit, Michigan, 48211. Inventory and maps will be updated every permit cycle.
- The plan does not address the storage, handling and use of pesticides as none are stored or applied in the park's areas.
- There are no vehicle maintenance facilities in the City's MS4 storm sewer area. There is a service yard on Belle Isle, which is operated by the State of Michigan via the lease agreement in 2013. Since the 2013 lease agreement, MDOT is responsible for all road maintenance on Belle Isle (including street sweeping and salting).

Detroit's Pollution Prevention/Good Housekeeping Measures for Municipal Operations include the following BMPs to control sediments, the main pollutant of concern:

1. Perform routine maintenance of all structural stormwater controls in the MS4 area which consists of catch basins as well as two bioretention basins located in the MS4 portion of

the municipal properties listed above. The catch basins and bioretention basins are the only structural controls currently in place on Detroit's MS4 system.

- a. The bioretention basins will include semi-annual cleaning of the mechanical separators and overflow structures. On an annual basis, DWSD will perform the following: mulching; inspect for invasive species and dead vegetation and remove as needed; and inspect the overflow weir and outflow pipe for erosion and repair as needed. Once per permit cycle, DWSD will remove and replace the bioretention mulch layers. The schedule for replacing mulch will be revisited if determined necessary during the inspections.
 - b. Catch basins within the MS4 area will be inspected at least once every three years and cleaned when no more than 50% full. DWSD will be using their Cityworks maintenance program to schedule inspections. The cleaning crew inspects each catch basin to determine if more than 50% full and answers assessment questions. If more than 50% full, maintenance crews use vector trucks for the catch basin cleaning. If additional maintenance is needed, an additional work order is added for the maintenance crew. Any sediment and sludge collected is emptied into the pits at DWSD's Central Services Facility. The pits are dewatered and dried out and stockpiled until taken to a landfill. The catch basin inspection and cleaning program is felt to be adequate to assess the parks and residential homes in the MS4 area.
 - i. The catch basins were inspected in 2020 and 2023 during the prior permit cycle. The next catch basin inspection will occur in 2026. If any of the catch basins are found to be more than 50% full, the inspection frequency will be re-evaluated as well as the rating for the Park in which they are located.
2. Perform street sweeping and application in the MS4 area. DPW conducts street sweeping on an 11-week cycle which starts approximately April 1. The goal is to do three cycles each year and includes all streets within the City, including the MS4 areas. Belle Isle is not swept as this is the responsibility of the State. The street sweeping schedule is maintained on the City's website. Proper sweeping methods include operating sweeping equipment in accordance with the manufacturer's operating instructions and to protect water quality. Disposal of the material collected through street sweeping is done through an outside contractor who charges the City based on weight of disposed material. DPW is an approved authorized public agency (APA), therefore, any earth change activities or road improvement activities are done in accordance with the approved SESC procedures. The SESC procedures are intended to reduce pollutant runoff during street, parking lot, sidewalk, and bridge improvement projects.
 3. Perform application of salt/deicing materials in the MS4 area during winter months in selected streets within the MS4 area. Residential roads are never salted and the City does no salting or plowing at Belle Isle as that is the responsibility of the State. Salt is used on some of the roads in the MS4 area. There are no bulk salt or brine storage areas within the MS4.
 4. Perform routine grass mowing in the parks. Buffer zones exist between the grass areas and the waterways to minimize impact on these waterways. The parks are not used for the purpose of snow stockpiling during winter. DWSD will conduct training to City park personnel that conduct maintenance operations. Training will be part of the IDEP training. Training will be conducted for identified personnel once per permit cycle and within first

year of hire for new staff. At this time, DWSD is not aware of any contractors conducting activities in the MS4 area. DWSD will review the boiler plate language for contractors working for DWSD, to ensure that it addresses stormwater management. Belle Isle is under long term contract with the State of Michigan and the State conducts the lawn mowing at Belle Isle.

5. For Right-of-Way activities other than catch basin cleaning or street sweeping, such as road repairs, catch basins are typically blocked off to minimize the potential for sediments and millings discharging to the catch basins and SESC controls are implemented as outlined in BMP #4 – Construction Stormwater Runoff Control.

3.1.7 Total Maximum Daily Load (TMDL) Implementation Plan

This section establishes the plan to comply with the Total Maximum Daily Load (TMDL) elements of the NPDES MS4 permit application. These requirements are as follows:

- Provide a procedure for identifying and prioritizing BMPs to reduce the TMDL pollutants,
- Provide a list of BMPs that will be implemented to reduce the TMDL pollutants, and
- Provide a monitoring plan to assess the effectiveness of the BMPs.

Applicable TMDLs

The U.S. Environmental Protection Agency has approved the following TMDL assessments that are applicable to the City of Detroit:

- Statewide *E. coli* TMDL (July 2019). This TMDL applies to the Rouge River.
- *E. coli* TMDL for the Detroit River (August 2008).
- Biota (sediment) TMDL for the Rouge River (August 2007).

Table 2 summarizes the water quality targets identified in the TMDL assessment documents.

Table 2: TMDL Targets

Parameter	Target
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<i>E. coli</i>	<ul style="list-style-type: none"> • 130 <i>E. coli</i> per 100 mL as a 30-day geometric mean and 300 <i>E. coli</i> per 100 mL as a daily maximum to protect the total body contact use from May 1 through October 31, and • 1,000 <i>E. coli</i> per 100 mL as a daily maximum year-round to protect the partial body contact use
Biota (sediment)	<ul style="list-style-type: none"> • Primary numeric target is based on the Procedure 51 biological community assessment protocol. The target is Procedure 51 results in a consistent “acceptable” or “excellent” rating. • Secondary target is a mean annual in-stream Total Suspended Solids (TSS) concentration of 80 mg/L for wet weather events. Achievement of the biological target will override this secondary target.

Pollutant Sources

The suspected sources and causes associated with each of the TMDL parameters are provided in Table 3. Only those sources regulated under the MS4 permit and applicable to the City of Detroit are included in these tables.

Table 3: Potential Pollutant Sources and Causes

Parameter	Potential Sources	Potential Causes
<i>E. coli</i>	Illicit sanitary connections to the MS4	<ul style="list-style-type: none"> • Undetected or uncorrected illicit discharges
	Contaminated runoff during storm events carrying waste from pets, feral animals and nuisance wildlife	<ul style="list-style-type: none"> • Lack of knowledge or caring about the importance of pet/animal waste management. • Loss of pervious areas thru urban development.
	Contaminated runoff during storm events carrying waste from improper garbage disposal	<ul style="list-style-type: none"> • Lack of knowledge or caring about the importance of proper garbage disposal.
Sediment	Municipal infrastructure (e.g. roads)	<ul style="list-style-type: none"> • Loss of pervious areas from urban development. • Insufficient stormwater infrastructure maintenance.
	Flashy hydrology from large development projects contributing to in-stream erosion.	<ul style="list-style-type: none"> • Insufficient stormwater management of large development projects.

BMP Prioritization

Suitable BMPs are identified and prioritized based on the following criteria:

- *Multiple parameters.* BMPs that can impact multiple TMDL requirements are weighted higher than those impacting a single parameter.
- *Human health.* The ability of the BMP to affect human health impacts caused by direct contact with the river.
- *Pollutant concentration.* The ability of the BMP to impact the concentration of the pollutants (*E. coli* and sediment) in the receiving stream or reduce the runoff flashiness (peak flow).
- *Impact and cost.* The anticipated level of impact of the BMP compared to the added cost to implement.
- *Prerequisites.* BMPs that have prerequisite projects that must be completed before the BMP can be implemented are ranked lower than BMPs without prerequisite projects.

Only BMPs that the City has the legal authority to implement are considered. The prioritization procedures may be reviewed and updated if needed by the City.

BMP Selection

BMPs that were identified for consideration are listed in Table 4 along with their associated ranking. The prioritization criteria were ranked using a high, moderate and low score. High scores were assigned a numeric value of 2, moderate a value of 1 and low scores were assigned a value of zero. The resultant score for the BMP is the sum of the assigned numeric values

assigned to each of the identified criteria. The last column identifies the BMPs selected for implementation at this time.

Table 4: BMPs Considered

BMP Description	Multiple Parameters	Human Health	Pollutant Concentration	Impact and cost	Prerequisites	Score	Implement
Illicit discharge source identification and abatement	2	2	2	2	2	10	✓
Implementation of the new stormwater regulation	2	2	2	2	2	10	✓
PEP: Train municipal O&M staff	2	1	1	1	2	7	✓
Good Housekeeping: Catch basin maintenance and street sweeping	1	1	1	1	2	6	✓
PEP: Education on IDEP complaint line	2	1	1	1	1	6	✓
Good Housekeeping: Riparian corridor/buffer strip to Parks staff	1	1	1	1	1	5	✓
PEP: Education on the impact of pet waste	0	1	1	1	1	4	✓
Implement additional stormwater control measures on public infrastructure improvement projects	1	1	1	0	0	3	(1)

(1) When municipal capital improvement projects are planned for municipal infrastructure in the MS4 areas, implementation of additional stormwater control measures will be considered and evaluated.

Evaluating Effectiveness

Various metrics will be tracked for evaluating the effectiveness of the BMPs implemented. Individual program metrics for illicit discharge source identification, public education and good housekeeping practices are discussed with information specific to those programs. In-stream monitoring of *E. coli* and sediment are not planned for either the Rouge River or the Detroit River since the City of Detroit MS4 area represents an insignificant fraction of the watershed areas for each of the rivers. That is to say that implementation of the BMPs by the City is not expected to have a measurable impact on the receiving streams by itself. It will take much more change within the river’s watersheds in order to see a net change in the river. In-stream monitoring in the Rouge River is periodically conducted by the Alliance of Rouge Communities and the State of Michigan. Publicly available in-stream monitoring results will be used to help guide the implementation plan when appropriate.

Dry Weather

For *E. coli*, monitoring the effectiveness is planned to utilize the dry weather monitoring efforts of the illicit discharge detection program. As a part of this program, the outfalls will be physically assessed and dry weather flow monitored for flow rate, *E. coli* concentration and other water quality parameters at least once every five years. Measured *E. coli* concentrations will be compared against the target levels identified in Table 2.

Wet Weather

DWSD will conduct wet weather sampling at the outfall locations specified in Table 5-6 during the 5-year permit cycle. Outfalls located in close proximity and with minimal variation in drainage areas or potential illicit connections have been grouped together so only one representative sample is required. This results in a minimum of 24 representative outfall samples during the permit cycle, or approximately 4-5 samples per year per permit cycle.

An effort will be made to sample water quality parameters during a representative (i.e. >0.25” and <1.5”) wet-weather event. Sampling will occur at the beginning of a storm event to capture the “first flush”. *E. coli* sampling will occur at the outfalls on the Detroit River and Rouge River (Table 5-6). TSS sampling will occur at the outfalls on the Rouge River (Table 6).

Event 1 sampling will occur once per permit cycle. Results from the Event 1 sampling will be compared to the targets listed in Table 2. Any outfalls with results that exceed the listed TMDL targets will be sampled again during a second event. Event 2 sampling results will be used to evaluate the efficacy of the BMPs implemented during the permit cycle. Results will also be used to update the TMDL implementation plan as appropriate and plan for any treatment practices.

Table 5 - Outfall Sampling Locations for Wet Weather Sampling on the Detroit River

Outfall ID	Receiving Water	Location	Number of Samples	TMDL
Detroit River and Tributaries				
D1	Detroit River	Lakewood East Park (3308) Bridge at Riverside Dr.	1	E. coli
D2	Lake Muskoday	Belle Isle Storm Pump Station No. 7	1	E. coli
D4	Nashua Creek	Behind athletic building, Lotier Way - Pump Station	1	E. coli
D5	Nashua Creek	Lotier Way behind former zoo	1	E. coli
D7	Nashua Creek	DRD service yard	1	E. coli
D8	Lake Tacoma	Strand St/Picnic Way, east of bridge	1	E. coli
D16	Lake Tacoma	Lake Tacoma off Strand, west of sign	1-2	E. coli
D new-1	Detroit River	Belle Isle, north side of Strand, south side of Lake Tacoma		
D new-2	Detroit River	Belle Isle - north side of the Strand, 150 ft east of bridge to Casino		
D new-3	Detroit River	Belle Isle - north side of the Strand, east of bridge to Casino		
D new-4	Detroit River	Belle Isle - north side of the Strand, 525 ft east of the bridge to Casino		
D new-5	Detroit River	Belle Isle - north side of the Strand, approx. 530 ft east of bridge		
D new-6	Detroit River	Belle Isle - north side of the Strand, approx. 830ft east of bridge to casino		
D new-7	Detroit River	Belle Isle - north side of the Strand, ~990 ft east of bridge to Casino		
D new-8	Detroit River	Belle Isle - north side of the Strand, ~1140 ft east of bridge to casino		
D new-9	Detroit River	Belle Isle - north side of the Strand, ~870 ft west of Picnic Way		
D new-10	Detroit River	Belle Isle - north side of the Strand, ~720 ft west of Picnic Way		
D new-11	Detroit River	Belle Isle - north side of the Strand, ~590 ft west of Picnic Way		
D new-12	Detroit River	Belle Isle - north side of the Strand, ~450 ft west of Picnic Way		
D new-13	Detroit River	Belle Isle - north side of the Strand, ~300 ft west of picnic way		
D new-14	Detroit River	Riverside Park - West Side	1	E. coli
D new-15	Detroit River	Riverside Park - East Side	1	E. coli
D17	Detroit River	Strand St. behind casino	1	E. coli
D22	Detroit River	Mt. Elliott Park (#3)	1	E. coli
D23	Detroit River	Ambassador Bridge and West Grand Boulevard	1	E. coli

Table 6 - Outfall Sampling Locations for Wet Weather Sampling on the Rouge River

Outfall ID	Receiving Water	Location	Number of Samples	TMDL
Rouge River				
R1	Rouge River	Glenhurst Ave. at Grayfield Ave.	1	E. coli and Biota (sediment)
R14A	Rouge River	Immediately south of Spinoza Dr. on west bank	1	E. coli and Biota (sediment)
R16	Rouge River	Immediately north of Joy, on east bank	1	E. coli and Biota (sediment)
R17	Rouge River	Parkland Ave @ Constance Rd. south of Joy Rd.	1	E. coli and Biota (sediment)
R29	Rouge River	North end of Lahser Rd. - south bank of river	1	E. coli and Biota (sediment)
R35	Rouge River	Ridge Road south of McNichols Road (new)	1	E. coli and Biota (sediment)
R36	Rouge River	North end of Lahser Rd. - south bank of river	1	E. coli and Biota (sediment)
R37	Rouge River	Ridge Road south of McNichols Road (new)	1	E. coli and Biota (sediment)
R38	Rouge River	Rouge Park Golf Course	1	E. coli and Biota (sediment)
R10A-new	Rouge River	Located at the south end of Circle drive in Eliza Howell Park	1	E. coli and Biota (sediment)
R14	Rouge River	Immediately north of Spinoza Dr. on west bank		
R18	Rouge River	Tireman Ave at Spinoza, south of Joy Rd.	1	E. coli and Biota (sediment)
R18A-New	Rouge River	New construction on Tireman Bridge		
R22	Rouge River	Rouge Park - Spinoza Ave near Tireman	1	E. coli and Biota (sediment)
R23	Rouge River	Rouge Park - Spinoza Ave near Tireman		

Sediment (biota)

Development projects must comply with the Post-Construction Stormwater Management Ordinance which includes provision for managing the peak flow, volume and sediment from the site. The City will continue implementing stormwater controls as outlined in the Stormwater Management Design Manual to manage sediment. The City will determine whether additional calculations are necessary to show sediment reduction at development projects on a case-by-case basis. As an additional metric for managing the sediment, the number and area of development projects in the MS4 area complying with the stormwater ordinance will be reported.

4.0 IMPLEMENTATION EFFORTS FOR THE UPCOMING PERMIT CYCLE**4.1.1 Record Keeping/Schedule/Frequency/Responsible Agency**

The following tables list the individual BMPs for each respective measure. These tables also show the anticipated schedule for implementation of the BMPs, the measurable goals, and the method for evaluating effectiveness. In some cases, activities are listed to be undertaken on an “as needed” basis. For example, the investigation of storm sewer outfalls for potential suspicious or illicit connections will be necessary only if the initial field observation indicates that there is dry weather flow present, or there is some other evidence of an illicit or suspicious connection.

Table 7: BMP #1: PUBLIC PARTICIPATION/INVOLVEMENT PROGRAM (PPP)

BMP Activity	Method of Implementation	Schedule	Measurable Goal	Recordkeeping/Method to Evaluate Effectiveness	Responsible Party
Make SWMP Available for Public to View and Comment	Update City website with new SWMP and allow for public to view and make comments. Prepare public notice of new SWMP.	Ongoing	Maintain website with up to date SWMP.	Track comments received from the public on SWMP and summarize comments that are incorporated in a SWMP update.	DWSD
Drainage Charge Program	Continue drainage charge program for customers.	Ongoing	Drainage charge credits for stormwater practices.	Track properties within MS4 area with drainage credits.	DWSD

Table 8: BMP #2: PUBLIC EDUCATION PROGRAM (PEP)

BMP Activity	Method of Implementation	Schedule	Measurable Goal	Recordkeeping/Method to Evaluate Effectiveness	Responsible Party
Encourage Public Reporting	Maintain Improve Detroit app so public has the capability to report illegal discharges specifically into storm sewers and clogged catch basins.	Ongoing	Reporting of illegal discharges into storm sewers and clogged catch basins.	Maintain a log of reports.	DWSD
MS4 Public Flyer	Distribute flyer to all homes in MS4 area.	Once per permit cycle	Flyer distribution.	Flyer.	DWSD
MS4 Public Survey	Survey homes in MS4 area.	Once per permit cycle.	Participation in survey.	Maintain a log of survey responses and track results.	DWSD
Signage at MS4 Catch Basins	Signage/stenciling to discourage dumping of wastes.	Once per permit cycle	All MS4 catch basin signage.	Photographs of signs at all MS4 catch basins.	DWSD
Provide Green Infrastructure (GI) Information to the Public	Maintain DWSD website with information regarding benefits of GSI.	Ongoing	Maintain website with up to date educational information.	Information available on DWSD's website.	DWSD

Table 9: BMP #3: ILLICIT DISCHARGE ELIMINATION PROGRAM (IDEP)

BMP Activity	Method of Implementation	Schedule	Measurable Goal	Recordkeeping/Method to Evaluate Effectiveness	Responsible Party
Drainage System Inventory	Maintain inventory and mapping of the MS4 City-owned storm sewers and drainage system.	Once per permit cycle	All drainage structures inventoried, and mapping maintained.	Updated maps.	DWSD
IDEP Training	Training will be conducted for identified City staff once per permit cycle and within first year of hire for new staff.	Ongoing	Training	Record of training.	DWSD
Outfall Inspections	Conduct dry weather outfall inspections.	Once per permit cycle	Identify the number of illicit discharges discovered through dry weather observations and screening and strive for 100% removal of illicit discharge sources as soon as practicable.	Inspection report and number of illicit discharges eliminated.	DWSD
Report Illegal Discharges to the Storm Sewers	ERP	As reported throughout permit cycle	Established mechanism for reporting.	ERP Spill Notification and Report form.	DWSD

Table 10: BMP #4: CONSTRUCTION STORMWATER RUNOFF CONTROL PROGRAM

BMP Activity	Method of Implementation	Schedule	Measurable Goal	Recordkeeping/Method to Evaluate Effectiveness	Responsible Party
Report discharges to MS4 from construction activity	ERP	As reported throughout permit cycle	Established mechanism for reporting	ERP Spill Notification and Report form.	DWSD
Part 91 Permit	Ensure that construction activity one acre or greater with the potential to discharge to the MS4 obtains a Part 91 permit.	Ongoing	Site plan reviews	Track all sites with potential to discharge to MS4 and maintain record of Part 91 permits.	DWSD

Table 11: BMP #5: POST CONSTRUCTION STORMWATER RUNOFF PROGRAM

BMP Activity	Method of Implementation	Schedule	Measurable Goal	Recordkeeping/Method to Evaluate Effectiveness	Responsible Party
Preliminary Site Plan Reviews and Approval	Implement stormwater ordinance through site plan reviews of any new or redevelopment projects located in the MS4 area.	Ongoing	Number of site plan reviews and applicable permits within MS4 area that are approved.	Log of all site plans approved for stormwater management.	DWSD

Table 12: BMP #6: POLLUTION PREVENTION AND GOOD HOUSEKEEPING PROGRAM

BMP Activity	Method of Implementation	Schedule	Measurable Goal	Recordkeeping/Method to Evaluate Effectiveness	Responsible Party
Catch Basin Cleaning Program	Perform catch basin cleaning on a regular basis (at a minimum, once every 3 years). Catch basins found with more than 50% sediment will be cleaned more frequently.	2020, 2023, 2026, etc.	Every catch basin in MS4 area inspected & cleaned, if necessary, at a minimum every 3 years.	Log of number of catch basins cleaned	DWSD
Bioretention Maintenance	Maintain and inspect the bioretention basins.	Semi-Annually (vacator mechanical separators and inspect and clean overflow structures) Annually (inspect mulch, overflow weir, and outflow pipe)	Continued maintenance of bioretention and functionality as designed	Maintain record of inspections	DWSD
Street Sweeping and Material Disposal	Continue current practices for street sweeping and material disposal in the MS4 areas.	Continue following DPW's current street sweeping schedule; request extra sweeping as needed throughout permit cycle	Periodical street sweeping with material disposal by an outside contractor	Maintain log of street sweeping and material disposal	GSD/DPW
Lawn Mowing	Continue current practices for lawn mowing in the MS4 areas with buffer zones between the lawns and water bodies.	Ongoing	Periodic lawn mowing, as needed	Records of training DWSD personnel to GSD personnel who conduct lawn mowing	GSD/DPW
Right of Way Maintenance	Catch basin cleaning and street sweeping. Catch basin blocked off during road repair.	Ongoing	Catch basin cleaning and inspection program	DWSD GIS log of number of catch basins cleaned	DWSD/DPW

5.0 SUMMARY

The City of Detroit's SWMP has been developed through a coordinated multi-agency effort by representatives from several City Departments. Since stormwater is not the sole responsibility of any one Department, the SWMP activities involve many entities including DWSD, GSD, the Planning and Development Department, DPW, BSEED, the Greater Detroit Resource Recovery Authority, and the Law Department.

Management and control of stormwater discharges will be achieved in a manner consistent with the efforts already underway by the City of Detroit to control wet weather discharges from its combined sewer system. However, due to the small size of the MS4, it is expected that the Long Term CSO Control Plan will have the most impact on the wet weather and stormwater runoff on the Detroit River and the Rouge River.

APPENDIX A

DWSD MUNICIPAL SEPARATE STORM SEWER SYSTEM ENFORCEMENT RESPONSE PROCEDURE

Appendix A DWSD

I. POLICY:

This policy is to establish the DWSD's Enforcement Response Procedure for the MS4 area.

II. BACKGROUND:

The MDEQ NPDES Phase II Stormwater Discharge Permit Application for the City's MS4 area requires a procedure for Enforcement Response to address illicit discharges, discharges from construction activities and/or post construction stormwater runoff control.

III. PROCEDURE:

For the Post Construction Stormwater Runoff Control, the Enforcement Response Procedure is outlined under Section 48-2-115 Notice, 48-2-116 Civil Penalty, and 48-2-117 Fines.

For Illicit Discharges and Connections and Construction Stormwater Runoff Control Enforcement, the process for notification of observed illicit connections or discharges or discharge from construction project will be carried out by an inspector or observer. The City will use the following enforcement policy, escalating the response when a discharger fails to respond in a timely manner.

1. When a routine inspection of the drainage system identifies an illegal connection/discharge to the City's MS4 system, the inspector, City worker, or observer will contact the DWSD SMG Group at (313) 880-2812.
2. Once DWSD's SMG is notified, SMG will respond to the complaint within 48 hours and initiate field inspections, follow-up screening and source investigations as appropriate. The schedule will be accelerated based on the complaint and/or potential threat to stormwater and receiving waters.
3. DWSD-SMG Group will document the discharge on the Spill Notification & Complaint Reporting Form.
4. Serious discharges or an imminent threat of discharge on a project may require an immediate escalation to a higher level of enforcement. The level of enforcement response will depend upon several factors:
 - a. Severity of the violation: the duration, quality, and quantity of pollutants, and effect on public safety and the environment
 - b. The violator's knowledge (either negligent or intentional) of the regulations being violated
 - c. A history of violations and /or enforcement actions individual or contractor
 - d. The potential deterrent value of the enforcement action

Tracking of instances of noncompliance occurrences will include the following information (identified in the Spill Notification/Complaint Reporting Form – see attached):

- Name
- Date
- Location of Violation (address, cross streets, etc.,)
- Business/Agency/Organization (as appropriate)

- Description of Violation
- Description of Enforcement Response
- Schedule for Returning to Compliance
- Date Violation was Resolved.

IV. OTHER:

Any questions on this policy and procedure should be directed to DWSD's Stormwater Management Group (SMG), 6425 Huber Street, Detroit, MI 48211.

**MUNICIPAL SEPARATE STORM SEWER SYSTEM ENFORCEMENT
RESPONSE PROCEDURE**

Appendix C

DWSD

V. PROCESS FOR UPDATING/REVISING THIS PROCEDURE

This procedure shall be reviewed on an annual basis by DWSD's SMG for any updates to streamline the requirements.

**Spill Notification & Complaint Reporting Form
Illicit Discharge Elimination Program
City of Detroit**

Complaint made by: _____

Phone #: _____

Date: _____ Time: _____

Location of Discharge: _____ Offending Party (if known)

Nature of Problem (i.e. paper waste, odor, color, etc.): _____

Is this an Emergency?

Yes (Then Phone 911) No

Nature of Emergency: _____

Initial Contact made to:

- 911
- Fire Dept. _____
- Police Dept. _____
- DWSD Customer Care (313) 267-8000
- DWSD SMG Group (313) 699-1808
- DWSD Hotline (313) 880-2812
- PEAS Hotline (State) 1-800-292-4706

Additional Comments:

Site Investigation

Date of Observation:

Investigating Agency:

Location of Discharge:

- Initial Investigation
- Follow-up Investigation

Crew Members:

Investigation Location:

Observations (odor, color, volume, etc.):

Actions Taken:

Danger to health and/or environment:

Yes No

Were photos taken: Yes* No

Date Corrected: _____

* Please attach copies

If necessary:

Agency Referred to: _____

Agency Contact: _____

Method of Communication:

E-mail Letter/memo Phone

Content of Communication:

Spill Notification & Complaint Reporting Form
Illicit Discharge Elimination Program
City of Detroit

Compliance Information & Schedule: <hr/> <hr/> <hr/>
Date Violation Was Resolved:

1. Take down complaint information.
2. Fill out the Spill Notification and Complaint Report form.
3. Inform the caller that the problem will be further investigated and thank him/her for calling in.
4. If the problems are related to sanitary please contact DWSD Customer Care at (313) 267-8000.
5. If the problem is related to the discharge of oil or other illicit discharge, please call DWSD SMG Group at: (313) 880-2812.
6. If the problem is related to a construction site and there is sediment leaving that site, please call DWSD SMG Group at: (313) 699-1808.
7. Please fax/email completed form to:
 - (i) Lisa Wallick
(313) 300-7510
swgroup@detroitmi.gov

APPENDIX B

Catch Basins in MS4 Drainage Areas

Catch Basin ID	Outfall ID	Location Description	Receiving Water
D new-1-2	D new-1	On The Strand Road, Belle Isle.	Lake Tacoma
D new-10-2	D new-10	On The Strand Road, Belle Isle.	Lake Tacoma
D new-11-2	D new-11	On The Strand Road, Belle Isle.	Lake Tacoma
D new-12-2	D new-12	On The Strand Road, Belle Isle.	Lake Tacoma
D new-13-2	D new-13	On The Strand Road, Belle Isle.	Lake Tacoma
D new-2-2	D new-2	On The Strand Road, Belle Isle.	Lake Tacoma
D new-3-2	D new-3	On The Strand Road, Belle Isle.	Lake Tacoma
D new-4-2	D new-4	On The Strand Road, Belle Isle.	Lake Tacoma
D new-5-2	D new-5	On The Strand Road, Belle Isle.	Lake Tacoma
D new-6-2	D new-6	On The Strand Road, Belle Isle.	Lake Tacoma
D new-7-2	D new-7	On The Strand Road, Belle Isle.	Lake Tacoma
D new-8-2	D new-8	On The Strand Road, Belle Isle.	Lake Tacoma
D new-9-2	D new-9	On The Strand Road, Belle Isle.	Lake Tacoma
D17-2	D17	Catch Basin on south side of The Strand Rd curb.	Detroit River
D2-7	D2	On The Strand Road curb.	Lake Muskoday
D2-5	D2	In the parking lot of the Belle Isle Nature Center.	Lake Muskoday
D2-8	D2	In the parking lot of the Belle Isle Nature Center.	Lake Muskoday
D2-9	D2	In the parking lot of the Belle Isle Nature Center.	Lake Muskoday
D22-13	D22	Catch Basin in Mt. Elliott Park.	Detroit River
D22-14	D22	Catch Basin in Mt. Elliott Park.	Detroit River
D22-15	D22	Catch Basin in Mt. Elliott Park.	Detroit River
D22-12	D22	Catch Basin in Mt. Elliott Park.	Detroit River
D4-3	D4	Near catch basin D4-5	Nashua Creek
D4-5	D4	In sidewalk behind athletic building.	Nashua Creek
D4-4	D4	In grass by side walk on east side of building.	Nashua Creek
D4-1	D4	Just behind parking lot of athletic building in grass.	Nashua Creek
D4-6	D4	In the grass behind tennis courts.	Nashua Creek
D4-8	D4	Located in the grass behind Belle Isle tennis courts.	Nashua Creek
D4-7	D4	Located in the grass behind Belle Isle tennis courts.	Nashua Creek
D5	D5	East side of Loiter Way just NE of brick wall.	Nashua Creek
unk-7	D7	DNR Maintenance Yard	Nashua Creek
D8-1	D8	North curb of Strand Rd.	Lake Tacoma
D new-14-1	D new-14	Located at Riverside Park	Detroit River
D new-14-2	D new-14	Located at Riverside Park	Detroit River
D new-14-3	D new-14	Located at Riverside Park	Detroit River
D new-14-4	D new-14	Located at Riverside Park	Detroit River
D new-14-5	D new-14	Located at Riverside Park	Detroit River
D new-15-1	D new-15	Located at Riverside Park	Detroit River
D new-15-2	D new-15	Located at Riverside Park	Detroit River
D new-15-3	D new-15	Located at Riverside Park	Detroit River
D new-15-4	D new-15	Located at Riverside Park	Detroit River
D new-15-5	D new-15	Located at Riverside Park	Detroit River
D new-15-6	D new-15	Located at Riverside Park	Detroit River
D new-15-7	D new-15	Located at Riverside Park	Detroit River
D new-15-8	D new-15	Located at Riverside Park	Detroit River
D new-15-9	D new-15	Located at Riverside Park	Detroit River
D new-15-10	D new-15	Located at Riverside Park	Detroit River
D23-1	D23	Located at Riverside Park Boat Launch	Detroit River
D23-2	D23	Located at Riverside Park Boat Launch	Detroit River
D23-3	D23	Located at Riverside Park Boat Launch	Detroit River
R1-1	R1	Located across from 18661 Grayfield.	Rouge River
R1-2	R1	Located across from 18661 Grayfield.	Rouge River
R10A-new-6	R10A-new	In the south curb of Eliza Howell Park roadway.	Rouge River
R10A-new-3	R10A-new	In the road of Eliza Howell Park.	Rouge River
R10A-new-8	R10A-new	In the road of Eliza Howell Park.	Rouge River
R10A-new-5	R10A-new	On the North curb, in the southern portion of park	Rouge River
R10A-new-9	R10A-new	South curb of Park roadway, SE of Catch basin R10A-	Rouge River
R14-3	R14	On the SW corner of Spinoza Dr. near Rouge River.	Rouge River
R14-1	R14	On the NW corner of Spinoza Dr. near Rouge River.	Rouge River
R14A-2	R14A	On the curb on the south side of Spinoza Dr.	Rouge River
R16-4	R16	In the grass on the North side of Joy Rd.	Rouge River
R16-10	R16	On the NW corner of Lahser and Joy Intersection at the	Rouge River
R16-12	R16	In the greenbelt NE quadrant of Joy Rd and Lahser Rd.	Rouge River
R16-2	R16	NE quadrant of Rouge River and Joy Rd at curb.	Rouge River
R16-3	R16	Catch basin in grass North side of Joy Rd.	Rouge River

Catch Basins in MS4 Drainage Areas

Catch Basin ID	Outfall ID	Location Description	Receiving Water
R16-4	R16	In grass on the North side of Joy Rd.	Rouge River
R16-6	R16	In grass on the North side of Joy Rd.	Rouge River
R16-7	R16	In grass on the North side of Joy Rd.	Rouge River
R16-8	R16	On the curb of Joy Rd adjacent to catch basin R16-7	Rouge River
R16-9	R16	On the curb, North side of Joy Rd.	Rouge River
R16-11	R16	On the curb at Joy Rd and Lasher Rd, NE quadrant.	Rouge River
R16-13	R16	On the curb, just East of Lasher Rd on Joy Rd.	Rouge River
R17-22	R17	At the curb on Beaverland.	Rouge River
R17-23	R17	Located in front of 8306 Beaverland Rd.	Rouge River
R17--3	R17	Located in front 8359 Parkland Rd.	Rouge River
R17-7	R17	Located in front of 8435 Parkland Rd.	Rouge River
R17-9	R17	East side of Constance Rd.	Rouge River
R17-10	R17	On the West side of Constance Rd.	Rouge River
R17-12	R17	Located in front of house 8281 Bramell Rd.	Rouge River
R17-14	R17	Located in front of 8230 Bramell Rd.	Rouge River
R17-16	R17	Located in front of 22636 Constance Rd.	Rouge River
R17-17	R17	Located across from 22363 Constance Rd.	Rouge River
R17-18	R17	Located in front of 8415 Beaverland Rd.	Rouge River
R17-24	R17	Located in front of 8305 Beaverland Rd.	Rouge River
R17-2	R17	Located in front of 8359 Beaverland Rd.	Rouge River
R17-4	R17	Located at the north side Parkland Rd.	Rouge River
R17-6	R17	Located across the street from 8435 Parkland rd	Rouge River
R18-1	R18	South side of Tireman, West of Spinoza Dr.	Rouge River
R18A-1	R18A-New-1	North side of Tireman, West of Spinoza at Rouge River	Rouge River
R23-1	R23	Catch basin at curb on South side of Spinoza Dr. SE of	Rouge River
R23-2	R23	North side of Spinoza Dr. SE of Tireman.	Rouge River
R29-2	R29	In the parking lot on the East side of Lasher Rd.	Rouge River
R29-3	R29	On the West side of parking lot on Lahser Rd.	Rouge River
R29-4	R29	West side of Lahser Rd.	Rouge River
R29-5	R29	Lahser Rd in East parking area.	Rouge River
R29-7	R29	Catch basin on the East side of Lasher Rd in Rouge	Rouge River
R29-6	R29	Catch basin on the West side of Lasher Rd in Rouge	Rouge River
R35-1	R35	Catch basin in front of 16930 Ridge Rd.	Rouge River
R36-1	R36	Located near Charles Wright Academy of Arts and	Rouge River
R36-2	R36	Located near Charles Wright Academy of Arts and	Rouge River
R36-3	R36	Located near Charles Wright Academy of Arts and	Rouge River
R36-4	R36	Located near Charles Wright Academy of Arts and	Rouge River
R36-5	R36	Located near Charles Wright Academy of Arts and	Rouge River
R37-1	R37	Located near Charles Wright Academy of Arts and	Rouge River
R37-2	R37	Located near Charles Wright Academy of Arts and	Rouge River
R37-3	R37	Located near Charles Wright Academy of Arts and	Rouge River
R37-4	R37	Located near Charles Wright Academy of Arts and	Rouge River
R37-5	R37	Located near Charles Wright Academy of Arts and	Rouge River
R38-1	R38	Located on Outer Drive near Rouge Park Drive	Rouge River
R38-2	R38	Located on Outer Drive near Rouge Park Drive	Rouge River
R38-3	R38	Located on Outer Drive near Rouge Park Drive	Rouge River
R38-4	R38	Located on Outer Drive near Rouge Park Drive	Rouge River
R38-5	R38	Located on Outer Drive near Rouge Park Drive	Rouge River
R38-6	R38	Located on Outer Drive near Rouge Park Drive	Rouge River
R38-7	R38	Located on Outer Drive near Rouge Park Drive	Rouge River
R38-8	R38	Located on Outer Drive near Rouge Park Drive	Rouge River
R38-9	R38	Located on Outer Drive near Rouge Park Drive	Rouge River
R38-10	R38	Located on Outer Drive near Rouge Park Drive	Rouge River