City of Portland Stormwater Management Plan (SWMP)

City of Portland Stormwater Program

TNS-088358

PUBLIC WORKS DEPARTMENT
100 S. RUSSELL STREET
PORTLAND, TN 37148
PHONE (615) 325-6776

FEBRUARY 2022

City of Portland Stormwater Management Plan (SWMP)

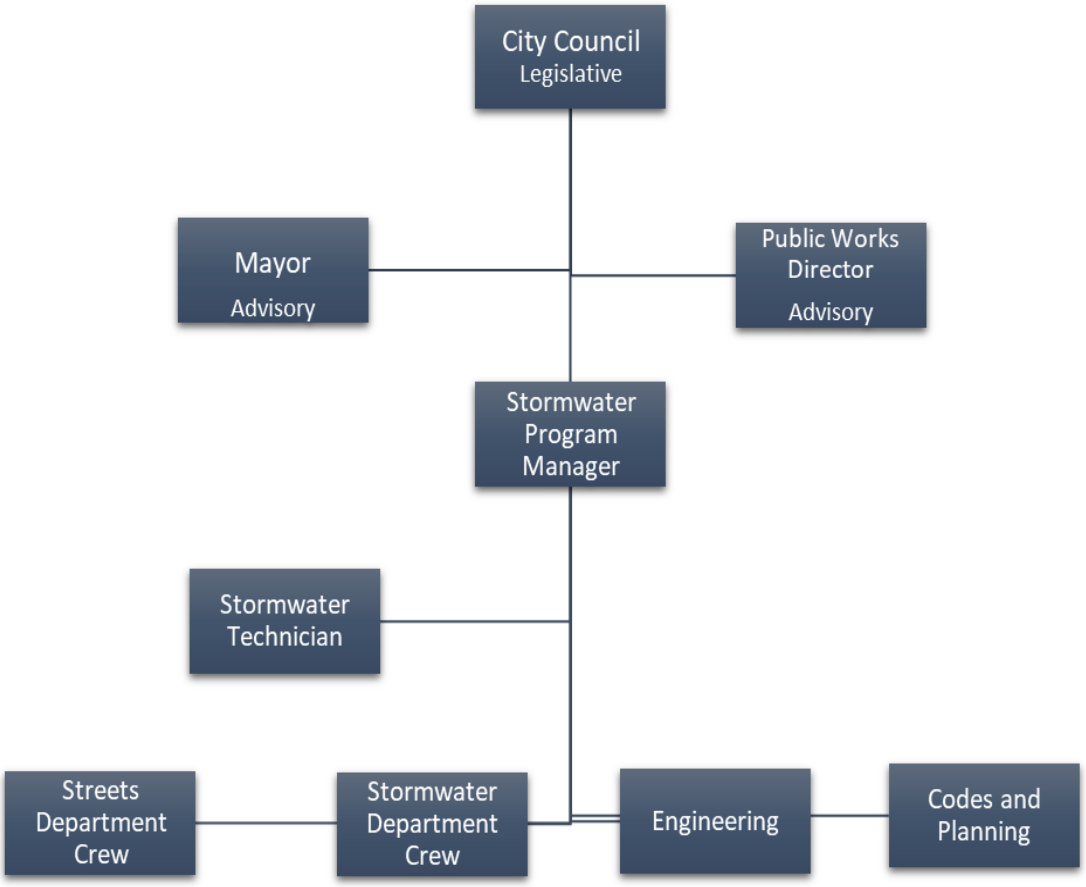
Introduction

This Stormwater Management Plan (SWMP) is required under U.S. Environmental Protection Agency (U.S. EPA) Phase II stormwater regulations, promulgated under the Federal Clean Water Act (CWA). These regulations require the City of Portland to obtain coverage under a National Pollutant Discharge Elimination System (NPDES) permit. The permit covers stormwater discharges associated with the municipality's separate storm sewer system (MS4) and requires the city to report annually on its progress. The latest stormwater permit issued by TDEC is valid from February 8, 2017 through September 30, 2021.

U.S. EPA's Stormwater Phase II Final Rule establishes that an MS4 stormwater management program is intended to improve the quality of the nation's waterways. Common stormwater pollutants include oil and grease from roadways and parking lots, pesticides, herbicides and fertilizers from lawns, sediment from construction sites and trash. Pollutants are deposited into waterways, impacting beneficial uses of the resources, and interfering with the habitat for fish, aquatic organisms, and wildlife.

The purpose of the SWMP is to identify pollutant sources potentially affecting the quality and quantity of stormwater discharges, to provide Best Management Practices (BMPs) for municipal and development activities, and to provide measurable goals to assess the effectiveness of implemented BMPs.

City of Portland MS4 Data Flow and Staffing Chart



Potential Sources of Pollution

Activity/Source	Pollutant(s) of Concern
Animal/pet waste	e. Coli
Construction Activities	Sediment, concrete, paint, chemicals, debris
Erosion	Sediment, organic matter
Food Service Operations	Wash water, oil, grease, food residue
Grounds Maintenance/Irrigation Operation	Herbicides, pesticides, fertilizers, animal waste
Impervious Areas	Increased flows and pollutant loading, oil, grease, litter, heavy metals
Outdoor Storage of Uncovered and Improperly Stored Materials	Litter, debris, sand, asphalt, soil, pesticides, herbicides, fertilizer, paint, solvents, fuel
Sewer Line Leaks	Raw sewage, e.Coli
Vehicle, Equipment and Materials Washing	Cleaning products, oil, grease, vehicle chemicals and fluids

Minimum Control Measures

Minimum Control Measures are aimed at achieving improved water quality. The city implements BMPs for the following six minimum control measures to remain in compliance with stormwater program requirements:

1. Public Education and Outreach
2. Public Involvement and Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Stormwater Runoff
5. Permanent Stormwater Management with New and Re-Development
6. Pollution Prevention/Good Housekeeping for Municipal Operations

1. Public Education and Outreach

Person Responsible: Stormwater Program Manager

The City of Portland's public information and education plan is comprised of various components (printed materials distributed at information tables and events; PSAs, City events, and the City's website; social media utilized for Facebook,

texting, and emails) with the goal of educating citizens on the effects of preventative actions for stormwater pollution and water quality.

The City of Portland targets all age groups at school visits and our annual Strawberry Festival Booth. Topics covered include stormwater, water quality, environmental education, ordinances, pollution prevention, etc. The public is notified through local newspapers, flyer/announcement distribution to public information tables, and website postings.

Table 1-1

BMP Implementation: Public Education and Outreach

Permit Year(s) and Timeline	BMP	Implementation Details	Measurable Goal(s)	Person(s)/ Department(s) Responsible
1 through 5, continuously	Educate general public about stormwater	Continue development and distribution of materials through information tables, website, workshops, etc.	Number of items created and distributed	Stormwater Manager
1 through 5, as scheduled	Classroom Education	Provide teacher in-service workshops on environmental education that correlates to the State's current educational standards. Provide information on the City's website. Engagements/ workshops with classrooms/school groups/ homeschool and Scouts. Work alongside other local MS4s, Cumberland River Compact, Project WET, and local schools and universities. We will continue to work alongside other MS4's through Stormwater Meetings.	Begin teacher in-service workshops and look at possible new workshops to offer, classroom speaking engagements, Scout badge programs, and participation in outreach events. Work alongside schools to offer environmental education opportunities.	Cumberland River Compact, Stormwater Manager, Stormwater Technician
1 through 5, continuously	Department Phone Line	The City has a department number available with voicemail ((615) 323-9293). When an incident is received, it is logged into files to track and appropriate personnel are notified. Also have reporting capabilities set up on City's website which are emailed to select personnel when submitted.	Provide a phone line with voicemail capabilities and a computerized tracking system to receive stormwater-related inquiries. Continue with existing hotline, website, email, and database reporting capabilities.	Stormwater Manager, Public Works Admin Assit., City Hall Receptionist

2. Public Involvement and Participation

Person Responsible: Stormwater Manager/ Stormwater Technician

One of the main goals of the City's stormwater program is to not only educate the public, but to also get them involved in helping improve local water quality. This can be completed by attending workshops and taking the information and applying it at home or simply participating in stream clean-up.

Participation by citizens ensures the program reflects community values and priorities and thus has the highest potential for success.

Table 2-1

BMP Implementation: Public Involvement and Participation

Permit Year(s) and Timeline	BMP	Implementation Details	Measurable Goal(s)	Person(s)/ Department(s) Responsible
1 through 5, as scheduled	Outreach Events	Stream clean-ups, Walk Across Sumner events	Number of participants, materials created and distributed, etc.	Stormwater Manager, non-profits and MS4s.
1 through 5, quarterly and as scheduled	TNSA Regional and other Stormwater Meetings	Coordinate routine stormwater meetings with other MS4s and the general public.	Number of people in attendance	Stormwater Manager, Stormwater Technician
1 through 5, monthly starting June 2022	Citizen Stormwater Committee	Re-establish the citizen stormwater committee through flyers and letters to gauge interest.	Number of citizens interested in being on the committee and attendance for meetings	Stormwater Manager

Note, the website is utilized to send emails, texts, and houses static information on public outreach involvement opportunities.

3. Illicit Discharge Detection and Elimination

Persons Responsible: Stormwater Manager/ Stormwater Technician

The goal of this minimum control measure is to reduce pollutants in stormwater runoff to receiving waters. It requires the development and implementation of a system to identify and eliminate sources of illicit discharge and illegal dumping.

The permit requires the City of Portland to develop, implement, and enforce a program that detects and eliminates illicit discharges as defined in 40 CFR §122.26(b)(2). The City must develop a storm sewer system map showing the location of all outfalls as well as the names and locations of all waters receiving discharges from the indicated outfalls and develop a program addressing non-stormwater discharges, including illegal dumping, hot spot/priority areas, and illegal discharges into the local water bodies.

Table 3-1

BMP Implementation: Illicit Discharge Detection and Elimination

Permit Year(s) and Timeline	BMP	Implementation Details	Measurable Goal(s)	Person(s)/ Department(s) Responsible
1 through 5, as needed	Outfall Inventory, Stream Assessments, and Dry Weather Screenings	Update mapping and continue monitoring plan already in place.	Implement photos into GIS system.	Stormwater Manager
1 through 5, continuously	Department Phone Line, Website, Email	The City has an office number available with voicemail ((615) 323-9293). When an incident is received, it is logged files in order to track and appropriate personnel are notified. Also have reporting capabilities set up on City's website which are emailed to select personnel when submitted.	Track the number of stormwater-related inquiries and what source they were reported.	Stormwater Manager, Public Works Admin. Assist.
1 through 5, Per permit cycle	Employee Training	Continue with permit cycle employee training or within 6 months of hire	Number of personnel attending meetings	Stormwater Manager, MTAS
2 through 5,	TMDL Monitoring per TDEC's Protocols	Collect and process water samples on 303(d) e.coli impaired streams per the TDEC-approved City's TMDL Monitoring Plan. Streams impaired for siltation and/or	Number and quality of samples collected and processed by State-certified laboratory.	Stormwater Manager, Consultants

		habitat alterations biological stream sampling is performed utilizing the SQSH method.		
1 through 5	Ordinance	Review IDDE section within current stormwater ordinance.	Review ERP with Citizen Stormwater Committee and advise on perceived changes.	Stormwater Manager
2, as needed	Ordinance	Update stormwater ordinance to enhance IDDE	Continue enforcement of IDDE as outlined within the stormwater ordinance. Number of NOVs issued and number of complaints received and addressed by staff.	Stormwater Manager, Stormwater Technician
1 through 5, quarterly and as needed	Hot Spot/Priority Area Identification, Inspection, and Implementation	Continue to look for established areas that may fall underneath this category. If a business is deemed a hot spot/priority area, then it will become part of the City's monitoring program. Suggested water-quality BMPs are provided to these areas.	Number of areas identified as Hot Spots or Priority Areas.	Stormwater Technician
1 through 5, final by end of 2022	Hot Spot list/map	Compile known hot spot areas onto a map for tracking purposes; update as necessary	New hot spots added annually	Stormwater Technician
1 through 5, monthly and as needed	Routine Stormwater Meetings/Workshops	Coordinate monthly stormwater meetings with other MS4s and the general public	Number of people in attendance	Stormwater Manager

		and Citizen Stormwater Committee.		
1 through 5, as needed	Rain Event Storm Drain Cleaning	The Stormwater crew cleans out storm drains in preparations for rain events.	Reports provided from staff on number of storm drains and culverts cleaned out. Type of debris blocking drainage.	Stormwater Crew, Stormwater Technician

4. Construction Site Runoff Control

Person Responsible: Stormwater Technician

The goal of this is to prevent sediment and waste generated at active construction sites from entering the stormwater conveyance system. The stormwater ordinance requires erosion and sediment control BMPs be in place prior to, during, and following development or re-development. Construction site operators are required to properly manage waste on the site such as discarded building materials, concrete truck washouts, chemicals, litter, sanitary waste, etc. as these items can adversely affect water quality if they encounter it.

Construction site operators are required to develop, implement, and maintain a Stormwater Pollution Prevention Plan (SWPPP) for projects that have a Construction General Permit which is to be kept on site and accessible. Construction sites are also to have in place a Level 1 certified inspector who self-inspects the site twice weekly and maintains accurate reports. The City also has staff which oversees stormwater controls on the site and helps the developer to remain in compliance with Local, State and Federal stormwater regulations. These employees are, at minimum, Level 1 certified. The State's minimum inspection requirements by the City are once a month. However, the City will begin to inspect priority sites on a bi-monthly basis, or as needed after rainfall events or complaint investigation. The City has defined priority construction activity to include, at a minimum, those construction activities discharging directly into, or immediately upstream of, water the state recognized as having unavailable parameters (for siltation and habitat alteration), Exceptional Tennessee Waters (ETW) or sites with a Construction General Permit.

Plans review procedures consist of construction site plan review and approval, including EPSCs and specific technical standards found in the current Construction General Permit (CGP).

The City has established procedures for priority construction sites. The procedures to establish priority construction activity shall include at minimum:

 Pre-construction meetings with construction site operators for priority construction activities.

 Inspection by the City of priority construction sites at least once per month.

 Documentation of procedures, including related meetings and inspections.

Table 4-1

BMP Implementation: Construction Site Runoff Control

Permit Year(s) and Timeline	BMP	Implementation Details	Measurable Goal(s)	Person(s)/ Department(s) Responsible
1 through 5, as needed	Ordinance	Review ordinance as required to comply with NPDES	Meeting agenda, sign-in sheet, etc. passage of ordinance	Stormwater Manager, Public Works Director, Consultant if necessary
1 through 5, updated as needed	Inventory of Active Construction Sites	Creation and maintenance of current permitted construction sites within City	Inspection data sheets, NOVs issued, etc.	Stormwater Technician
1 through 5, continuously	Erosion Prevention and Sediment Control Handbook	TDEC Level 1 and Level 2 training for employees	Attendance at Level 1 or 2 classes	Stormwater Manager, Stormwater Technician
1 through 5, continuously	Site Plan Review	Perform site plan reviews as needed	Number of reviews performed.	Engineering, Planning, Public Works, Codes, Utilities, Stormwater Manager
1 through 5, continuously	Site Inspection	Continue construction site inspections, preparation of active site inventory list and evaluation plan. Ensure developer is conducting routine inspections, updating the SWPPP they prepared, etc.	Number of inspections performed, NOVs issued, Land Disturbance Permits issues, and meetings held.	Stormwater Technician
1 through 5, monthly	Routine Stormwater Meetings/Workshops	Coordinate monthly stormwater	Number of people in attendance	Stormwater Manager

		meetings with other MS4s and the general public.		
1 through 5, as needed	Pre-Construction Meetings	Host pre-construction meetings to review stormwater controls	Number of pre-con meetings held.	Stormwater Manager, Stormwater Technician
1 through 5, as needed	SWPPP	Development of SWPPP by developer for review by Engineering staff and Inspector	SWPPP documents reviewed	Stormwater Manager, Engineer, Public Works Director

5. Permanent Stormwater Management for New and Re-Development

Persons Responsible: Stormwater Technician, Stormwater Manager

The goal is to reduce the generation of non-point source pollution from urban runoff through planning and design prior to development or re-development. Post-construction runoff control focuses on site and design considerations, which are most effective when addressed in the planning and design stages of project development. Effective long-term management and maintenance are critical, so the best design opportunities are those needing the least amount of maintenance. The goal of the program is to integrate basic and practical stormwater management techniques into new development to protect water quality.

Post-construction stormwater management controls include permanent structural and non-structural BMPs (e.g., conservation of natural and permeable areas, permeable pavers, rooftop runoff infiltration, mechanical storm drain filters, rain gardens, green infrastructure, etc.) that remain in place following project completion.

Table 5-1

BMP Implementation: Post-Construction Stormwater Management for New and Re-Development

Permit Year(s) and Timeline	BMP	Implementation Details	Measurable Goal(s)	Person(s)/ Department(s) Responsible
1 through 5, as needed and annually	Post-construction runoff controls	Review and approval of post-construction runoff controls as part of site plan review and issuance of permits. Begin tracking of BMPs	Post-construction BMP tracking and updates.	Stormwater Manager
1 through 5, continuously	Post-Construction for Stormwater Quality Manual (TDEC)	Continue with TDEC's manual of BMPs for post-construction stormwater quality	BMPs are being adhered to upon inspection	Stormwater Manager
1 through 5, annually	Reporting	Receipt of annual reports from post-construction sites.	Number of reports received.	Stormwater Manager, Stormwater Technician
1 through 5, as needed	Long-term Maintenance Plan (Inspection and Maintenance Agreement)	Require submittal of recorded document stating long-term maintenance plans for each project requiring permanent stormwater control measures.	Number of long-term maintenance agreements received.	Stormwater Manager

6. Pollution Prevention/Good Housekeeping for Municipalities

Person responsible: Stormwater Technician

The goal is to assure that facility and maintenance operations City-wide occur in a manner which is protective of stormwater quality. Several employees move throughout the City daily and are the eyes and ears "on the ground" to observe water quality related issues. Employees are also responsible for the safety of their workplace and know their actions can directly affect the quality of our waterways. Employees take pride in their jobs and are trained on a regular basis on water quality related issues.

Table 6-1

BMP Implementation: Pollution Prevention/Good Housekeeping for Municipalities

Permit Year(s) and Timeline	BMP	Implementation Details	Measurable Goal(s)	Person(s)/ Department(s) Responsible
1 through 5, as needed	Employee Training	Continue City-wide departmental good housekeeping training to help improve pollutant control efforts and water quality	Number of people in attendance.	Stormwater Manager, assistance from MTAS
1 through 5, annually and as needed	Standard Operating Procedures	Maintain standard operating procedures and review. Contains BMPs for municipal-operated facilities. Review and update as needed.	SOP documentation, SOP listed in facilities	Stormwater Manager, Other Department Supervisors
1 through 5, monthly	Departmental Inspection	Each department inspects for stormwater quality within their area and reports monthly.	Number of reports received, noted items addressed and reconciled.	All Department Supervisors, Stormwater Technician
1 through 5,	Employee Training (Level 1 and 2, TNSA meetings)	Employees who are involved with stormwater on a regular basis (more so than departmental inspectors) attend various stormwater meetings on monthly/quarterly/regular basis to stay current on stormwater-related events.	Number of meetings attended.	Stormwater Manager, Stormwater Technician
As needed	EPSC Training	Ensure each employee involved with stormwater has received at least TDEC's Level 1 training and remain current with program. Add Level 2 when necessary.	Number of employees trained.	Stormwater Manager
1 through 5 continuously	Stormwater Infrastructure Maintenance	Provide daily Maintenance and upgrades to our city drainage infrastructure.	Track man hours, work orders, addresses and completion dates. Total products invested.	Stormwater Crew Supervisor
1 through 5	Department Phone Number	Employees can report illicit discharges and water quality concerns	Number of reports received.	All Departments

		via the Department's number ((615) 323-9293), by reporting it to their departmental stormwater contact, or via the City's website.		
1 through 5 continuously	Litter Removal	Employees assisting with litter removal in addition to Stream Cleanup Events and Adopt-a-Street	Number of employees, Man Hours, and total lbs. removed	All City Employees

Inspection and Monitoring Programs

Construction Inspection

Persons Responsible: Stormwater Technician

The goal is to prevent sediment and waste generated at active construction sites from entering the stormwater conveyance system. The stormwater ordinance requires erosion and sediment control BMPs be in place prior to, during, and following development or re-development. Construction site operators are required to properly manage waste on the site such as discarded building materials, concrete truck washouts, chemicals, litter, sanitary waste, etc. as these items can adversely affect water quality if they are introduced to it.

The City has a technical review process that evaluates new development and redevelopment for construction site runoff. A pre-construction meeting between the City and the site developer occur to discuss details of water quality controls before, during and after construction.

The site plan review process:

1. Receipt by Planning Department of document from specified project engineering company for review and consideration at the published date of the next Planning Commission meeting.
2. A copy of the document/attachment is forwarded to City Engineer, Codes Department and Public Works
3. Upon receipt a staff review meeting is scheduled to discuss outstanding issues of the document relating to all departments.
4. Corrected comments are prepared by the Planning Director and sent to the specified project engineer with a date for resubmittal of the corrected document to the Planning Department for final review.
5. Upon receipt of corrected document, the Planning Director will conduct a final review to determine if all outstanding issues have been addressed in accordance with the Portland Zoning Ordinance and Subdivision Regulations.

6. Copies of the document, any attachments and a staff review report will be delivered to members of the Planning Commission for review prior to the published date of the Planning Commission meeting.

Prior to commencement, the City's Stormwater Technician verifies appropriate stormwater controls are properly installed and functioning. Construction site operators are required to develop, implement, and maintain a Stormwater Pollution Prevention Plan (SWPPP) which is to be kept on site, be updated as needed, and remain accessible to any inspector. Construction sites are also to have in place an inspector which self-inspects the site twice weekly and maintains accurate reports. The City inspects high-priority sites (sites operating within 1,000 feet of an impaired stream) Twice Monthly, regular sites (sites operating over 1,000 feet from an impaired stream) monthly, and inactive and stable sites once a month. The State's minimum inspection requirements by the City are once a month. The City's Stormwater Technician oversees stormwater controls on the site and works to keep the developer in compliance with Local, State and Federal stormwater regulations.

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC)

General NPDES Permit for Stormwater Discharges from Construction Activities (CGP)

Construction Stormwater Inspection Certification (Twice-Weekly Inspections)

Site or Project Name:			**NPDES Tracking Number:**	
Primary Permittee Name:			Date of Inspection:	
Current approximate disturbed acreage:		Has rainfall been checked/documented daily? ☐Yes ☐ No	Name of Inspector:	
Current weather conditions:			Inspector's TNEPSC Certification Number:	

Please check the box if the following items are on-site:

☐ Notice of Coverage (NOC) ☐ Stormwater Pollution Prevention Plan (SWPPP) ☐ Twice-weekly inspection documentation

☐ Site contact information ☐ Rain Gage ☐ Off-site Reference Rain Gage Location: _____

Best Management Practices (BMPs):

Are the Erosion Prevention and Sediment Controls (EPSCs) functioning correctly: If "No", describe below in Comment Section			
1.	Are all applicable EPSCs installed and maintained per the SWPPP?	☐Yes	☐No
2.	Are EPSCs functioning correctly at all disturbed areas/material storage areas per section 4.1.5?	☐Yes	☐No
3.	Are EPSCs functioning correctly at outfall/discharge points such that there is no objectionable color contrast in the receiving stream, and no other water quality impacts per section 5.3.2?	☐Yes	☐No
4.	Are EPSCs functioning correctly at ingress/egress points such that there is no evidence of track out?	☐Yes	☐No
5.	If applicable, have discharges from dewatering activities been managed by appropriate controls per section 4.1.4? If "No", describe below the measures to be implemented to address deficiencies.	☐Yes	☐No
6.	If construction activity at any location on-site has temporarily/permanently ceased, was the area stabilized within 14 days per section 3.5.3.2? If "No", describe below each location and measures taken to stabilize the area(s).	☐Yes	☐No
7.	Have pollution prevention measures been installed, implemented, and maintained to minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters per section 4.1.5? If "No", describe below the measures to be implemented to address deficiencies.	☐Yes	☐No
8.	If a concrete washout facility is located on site, is it clearly identified on the project and maintained? If "No", describe below the measures to be implemented to address deficiencies. ☐ N/A	☐Yes	☐No
9.	Have all previous deficiencies been addressed? If not, describe the remaining deficiencies in the Comments section. ☐ Check if deficiencies/corrective measures have been reported on a previous form.	☐Yes	☐No
Comment Section. If the answer is "No" for any of the above, please describe the problem and corrective actions to be taken. Otherwise, describe any pertinent observations:			

Certification and Signature (must be signed by the certified inspector and the permittee per Sections 3.5.8.2 (g) and 7.7.2 of the CGP)

I certify under penalty of law that this report and all attachments are, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Inspector Name and Title:	Signature:	Date:
Permittee Name and Title:	Signature:	Date:

Notice of Violation Letter Example

CITY OF PORTLAND
CORBIN KEEN – STORMWATER TECHNICIAN
CARLTON COBB – PUBLIC WORKS DIRECTOR
100 SOUTH RUSSELL STREET
PORTLAND, TENNESSEE 37148
Telephone 615/325-6776
ckeen@cityofportlandtn.gov
ccobb@cityofportlandtn.gov

Name of Contractor
Development
Address
Portland, Tn. 37148

Date:

RE: **Notice of Illicit Discharge Violation**

This letter will serve as your official Notice of Violation that on **(insert date)** an inspection of the above referenced property determined that it is in violation of Section 21-108 of the City of Portland Stormwater Ordinance and is hereby declared to be a public nuisance in that:

1) The Stormwater Technician and Public Works Director have determined that the discharge from a Site is causing, contributing to, or is likely to contribute to a violation of a state water quality standard.
2) Notwithstanding other requirements of law, as soon as any Person responsible for a Facility or operation, or responsible for emergency response for a Facility or operation has information of any known or suspected release of materials which are resulting in, or may result in, Illicit Discharges or Pollutants discharging into, the MS4, the Person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release.
3) (Insert reason(s) for violation)

Corrective Action:

The following criteria shall apply to prevent future occurrences:

1. (List Corrective Actions)

The violation carries a **Suspended Fine** in the amount of **$550 USD**. The Fine will be enforced if the corrective actions are not completed within **14 days** from this notice or additional fines or even a STOP WORK ORDER will be issued. The City will conduct a follow up inspection in 14 days, or when corrections are made and the department is notified. Under the authority provided in Tennessee Code Annotated § 68-221-1106, the City declares that any Person violating the provisions of this Title may be assessed a Civil Penalty by the City Engineer of not less than fifty dollars ($50.00) and not more than five thousand dollars ($5,000.00) per day for each day of violation. Each day of violation shall constitute a separate violation.

Stormwater Technician: _____ Date: _____

Public Works Director: _____ Date: _____

Hot/Spot Priority Area Inspection

Person responsible: Stormwater Technician

Businesses will be inspected by the Stormwater Technician utilizing the EPA's Hot Spot Inspection Checklist form. Establishments deemed hot spot/priority areas are sent an introductory letter, self-inspection checklist, and suggested BMPs to help improve water quality runoff from their operation. Correspondence to/from the department is noted within the Stormwater Department files.

Municipal Inspection

Persons responsible: Stormwater Technician and Departmental Contacts in Administration, Fire, Parks, Public Works, and Utilities

The goal is to assure that facility and maintenance operations City-wide occur in a manner which is protective of stormwater quality. Several employees move throughout the City daily and are the eyes and ears "on the ground" to observe water quality related issues. Employees are also responsible for the safety of their workplace and know their actions can directly affect the quality of our waterways. Employees take pride in their jobs and are trained on a regular basis on water quality related issues. Stormwater Pollution Prevention Plans (SWPPP) for each department will be produced and are updated as needed.

Each department will develop a stormwater contact that is responsible for conducting monthly departmental stormwater inspections. Reports are due at the end of each month and are to be submitted to the Stormwater Technician. An email reminder will be sent out a week prior to submittal date. Corrective actions can be taken if departments do not comply with monthly inspections.

CITY OF PORTLAND
GOOD HOUSEKEEPING INSPECTION SHEET

DEPARTMENT: _____ WEATHER: _____

DATE: _____ INSPECTOR: _____

GOOD HOUSEKEEPING	N/A	YES	NO	ACTION NEEDED
Are storm drain inlets labeled with "Drains to Stream" disks?				
Are storm drain grates clean or do they need maintainance?				
Are stormwater drainage paths are clear of dirt and debris?				
Are outside areas are neat, orderly, and free of debris?				
Are waste receptacles properly contained and covered?				
Are vehicles or equipment cleaned at this facility?				
Are the filters installed on drains cleaned and/or maintained on regular basis? Note when cleaned or maintained.				
Are spill response materials readily available and are employees trained on use?				
MATERIALS AND HAZMAT STORAGE	**N/A**	**YES**	**NO**	**ACTION NEEDED**
Are vehicles fueled at this location?				
Are fuel tanks operating properly? Note any repairs since last inspection.				
Do above-ground storage tanks have secondary containment?				
Do containment structures need repair?				
Are hazardous materials stored on site?				
Are containers weathertight, covered, properly contained and stored?				
Is an updated MSDS folder easily accessible?				
Are products labeled according to MSDS/TOSHA/OSHA specifications?				
How are chemicals and wash water disposed?				
OTHER BEST MANAGEMENT PRACTICES	**N/A**	**YES**	**NO**	**ACTION NEEDED**
Is leaking equipment equipped with drip pans and proper clean-up supplies?				
Are salvaged materials and recyclables properly contained?				
Has this facility received storm water complaints? If so, attach documentation.				
Have reported issue(s) been addressed and documented?				
Have employees received stormwater good housekeeping training?				
Is a contact list posted so employees can report water-quality threats?				

NOTES:

Revised December 13th, 2021.

Illicit Discharge Detection and Elimination Inspection

Persons Responsible: Stormwater Manager

The goal of this minimum control measure is to reduce pollutants in stormwater runoff to receiving waters. It requires he development and implementation of a system to identify and eliminate sources of illicit discharge and illegal dumping.

The permit requires the City of Portland to develop, implement, and enforce a program that detects and eliminates illicit discharges as defined in 40 CFR §122.26(b)(2). The City must develop a storm sewer system map showing the location of all outfalls as well as the names and locations of all waters receiving discharges from the indicated outfalls and develop a program addressing non-stormwater discharges, including illegal dumping, hot spot/priority areas, and illegal discharges into the local water bodies.

Illegal dumping is addressed by the Stormwater and Police Departments and prosecuted when possible.

TMDL

TMDL Overview

The TMDL process establishes the maximum allowable loadings of pollutants for a water body while maintaining quality standards for various uses ranging from aquatic and marine life to recreational usage. The TMDL is used to develop controls for reducing pollution from point and non-point sources in order to restore and maintain water resource quality. Water quality monitoring activities provide the chemical, physical and biological data needed to determine the present quality of the State's waters and identifies the sources of pollutants in those waters.[i]

The EPA, with oversight from the local TDEC office in Nashville, requires local MS4 Phase II communities, which the City of Portland is classified as, to implement a five-year monitoring plan of its impaired stream segments which are listed within the April 17, 2008, EPA, Region 4-approved TMDL report.

The water monitoring program shall include collection and analysis of physical, chemical, and biological data as well as quality assurance and control programs to assure scientifically valid data. Additional monitoring and assessment activities are recommended to determine whether implementation of TMDLs, WLA, and LAs in tributaries and upstream reaches which will result in achievement of in-stream water quality targets for e.Coli. Long-term monitoring is ideal for determining the sources of pollution.

The purpose of this plan is to comply with TDEC's monitoring requirements associated with the approved TMDL report for e.Coli in the Red River and Barren River Watershed as described within the City of Portland's NDPES Permit #TNS088358. The City's stormwater permit outlines the six minimum required BMPs previously described within

this SWMP. To evaluate the program's effectiveness and TMDL reporting compliance, appropriate monitoring programs must be established and fulfilled.

The City of Portland must prepare and implement stream monitoring plans for both siltation/habitat alterations and for pathogens. Sumners Branch and Donaho Branch are the two streams in the City of Portland that are impaired due to e. Coli and siltation.

Since the issuance of the new NPDES permit (effective February 8, 2017 – September 30, 2021), the City is also required to monitor each stream segment that is impaired with siltation. Biological stream sampling will be performed utilizing methods identified within TDEC's standard operating procedures for macro-invertebrate sampling and/or testing approved under 40 CFR §136. Monitoring information shall include the monitoring date, exact location (latitude and longitude), time of sampling, names of individuals conducting sampling, date the analyses were performed, names of individuals who conducted the analyses, analytical techniques or methods used and the results of the analyses.

From this inspection process, the City will be able to determine if changes will need to be made to existing BMPs and/or if new BMPs need to be established. Once the data is in place, it'll be determined if priorities need to be re-established. Monitoring data will be included in future annual stormwater reports submitted to TDEC as required.

TMDL NPDES MS4 Permit Requirements

The approved TMDL considers e.Coli a nonpoint source of pollution which is not regulated by an NPDES permit. However, the Phase II permit includes conditions for stormwater discharges to impaired streams and conditions for impaired water bodies under a TMDL.

Nonpoint sources of both coliform bacteria and siltation are not identified as entering a water body through a specific conveyance at a single location. These sources usually involve accumulation on land surfaces and wash off because of storm events, are present due to failing septic system or as a result of stream bank erosion or failing BMPs from construction activities. Nonpoint sources of e.Coli loading are primarily associated with agricultural and urban land uses. The vast majority of water bodies identified on the EPA's 2010 303(d) list as impaired due to e.Coli or siltation are attributed to nonpoint agricultural or urban sources.

Wildlife and agriculture deposit coliform bacteria with their feces onto land surfaces where it can be transported during storm events to nearby streams. Agricultural livestock and other unconfined animals often have direct access to water bodies and can provide a concentrated source of coliform bacteria loading directly to a stream.

Some coliform loading can also be attributed to the failure of septic systems and illicit discharges of raw sewage. The City investigates illicit discharges from failing septic systems and refers to the State environmental office to monitor and address any septic-related issues within Portland's jurisdiction.

Urban land use provides additional opportunities for carrying pollutants to our water bodies such as stormwater runoff, construction activities, sanitary waste, improper disposal of wastes, leaking septic systems, domestic animals, etc.

TMDL Data Review

The TMDL for e.Coli within the Red River watershed was submitted to EPA, Region 4 on March 19, 2008, and approved on March 28, 2008. The TMDL for e.Coli within the Barren River Watershed was submitted to EPA, Region 4 on October 2, 2007 and approved on October 23, 2007. The respective TMDLs address water body segments of the watersheds which are listed on EPA's 2016 final 303(d) list as impaired due to e.Coli and the 2016 final 303(d) list as impaired for siltation and habitat alterations. The streams impaired for e.Coli from the 2006 final list remain the same on the EPA's 2016 303(d) list. The following stream segments are within the City of Portland's jurisdiction:

Stream Name	Stream ID	Cause	Approved TMDL	MS4 Assigned to WLA
Summers Branch	TN05130206024-0150	Siltation/E.coli	Yes	Yes
Unnamed Trib to West Fork Drakes Creek	TN05110002008-0550	Flow Alterations	No	No
Donaho Branch	TN05130206024-0152	Siltation/E.coli	Yes	Yes

e.Coli is an indicator of the presence of disease-causing organisms such as bacteria or viruses, which can pose an immediate and serious health threat to humans. The noted primary source of e.Coli is untreated or inadequately treated human or animal fecal matter. Based on the analysis of data taken in the above-mentioned streams, the TMDL develops load reductions in e.Coli necessary for the impaired streams segments to meet water quality standards. The City of Portland continues to undergo sewer rehabilitation throughout its jurisdiction to ensure the sewer system is operating at capacity.

Stormwater Maintenance Crew

The goal of the stormwater maintenance crew is to protect the quality of water resources and reduce the potential for the loss of life or property due to flooding.

The Stormwater Crew Supervisor, Crew Lead, and Crew Workers are responsible for the maintenance and upkeep of stormwater infrastructure in the City Limits of Portland. This includes but is not limited to, ditch clean-outs, road tile replacement, driveway tile replacement and nuisance flooding concerns. The City operates and maintains drainage facilities that are located within the public right-of-way. The City is also responsible for the water quality of natural streams within its jurisdiction as designated by both the State and Environmental Protection Agency (EPA). The City does not maintain facilities or structures that are located on private property or that fall under the jurisdiction of other local governments.

The Stormwater Department is a special revenue fund that is funded entirely by a Stormwater ERU fee. The Department is a publicly funded government utility; therefore, the Stormwater Crew can only perform drainage work in a Public Right-of-Way, or a Public Drainage Easement as prescribed on a plat. Funds from this utility cannot be used for private property work. Drainage work may be necessary outside of these boundaries if life or property saving measures are necessary.

There are certain policies that must be followed by the Stormwater Maintenance Crew to ensure the integrity of the utility:

- All necessary improvements made to public infrastructure will be completed in a timely and efficient manner.
- Methods for the public to report stormwater requests or concerns will be readily available on the City's website and the departmental phoneline.
- Stormwater requests will be investigated as soon as possible, and an inventory of all requests will be kept in the Public Works office.
- Jobs will be prioritized by the immediate threat to life or property.
- The Stormwater Department will absorb all the cost of public infrastructure projects.
- The Department will **not** absorb the cost of any privately owned stormwater control measure work. This includes driveway tiles that property owners request to have replaced. If the Department deems a necessary repair to a privately-owned stormwater control measure that is causing or may cause a threat to life or property, the Department will absorb the cost.
- The Stormwater Department retains the right to invoice for any private property work done.

CITY OF PORTLAND, TN MONITORING PLAN

OPTION 1

City of Portland Stormwater Management

TNS-008358

100 S Russell St Portland, TN 37148

(615) 325-6776

Stormwater Management – City of Portland, Tennessee (cityofportlandtn.gov)

Revised: 2/2022

Table of Contents

I. Introduction

II. Analytical Monitoring Requirements

III. Non-Analytical Monitoring Requirements

IV. Record Keeping

V. City of Portland Future Contracts for Analytical & Non-Analytical Monitoring

I. Introduction

MS4 monitoring programs are intended to provide data that, when combined with other MS4 information, identifies pollutant sources, and assists in determining the effectiveness of the Program in improving water quality. Specifically, the Phase II MS4 monitoring program consists of analytical monitoring and nonanalytical monitoring components. Both components must include a process to evaluate monitoring results and take appropriate corrective action as applicable.

The Analytical and Non-Analytical Requirements that the City of Portland will need to meet every permit cycle are described below:

II. Analytical Monitoring Requirements

In accordance with Section 5.1 of the Small MS4 General NPDES Permit, the City of Portland shall perform analytical monitoring in compliance with the requirements for Option 1 as described below:

Option 1- The permittee shall perform analytical monitoring as a part of its Stormwater Management Program within the MS4 program area. At a minimum, this monitoring shall be conducted in streams with unavailable parameters for nutrients, pathogens, siltation, or other MS4 pollutants of concern specifically required by the division, according to section 4.4.2.

For stream segments identified by the division as waters with unavailable parameters for siltation, habitat alteration and/or nutrients, biological stream sampling and habitat assessment must be performed utilizing the Semi-Quantitative Single Habitat (SQSH) Method as identified in the division's most current version of the Quality System Standard Operating Procedure for Macroinvertebrate Stream Survey. At least one sample per stream segment must be collected, with all segments within the MS4 jurisdiction sampled in a five-year period.

For stream segments identified by the division as waters with unavailable parameters for pathogens, bacteriological stream sampling must be performed utilizing methods identified in the division's most current version of the Quality System Standard Operating Procedure for Chemical and Bacteriological Sampling of Surface Water. Monitoring shall include the collection of five samples within a thirty-day period (to establish a geometric mean) and be performed during the summer (March 4 through November). Corresponding flow measurement

is recommended but not required. At least one series of five samples per stream segment must be collected, with all segments within the MS4 jurisdiction sampled in a five-year period. The MS4 permit states that for the purpose of complying with sections 5.1 and 5.2, the permittee is only required to sample the stream segments that were designated by the division upon the effective date of this permit. The City of Portland will sample all currently assessed streams that are designated with unavailable parameters for nutrients, pathogens, and siltation.

Discharges to Waterbodies with Unavailable Parameters in the City of Portland, Sumner and Robertson County, Tennessee

Stream Name	Stream ID	Cause	Approved TMDL	MS4 Assigned to WLA
Summers Branch	TN05130206024-0150	Siltation/E.coli	Yes	Yes
Unnamed Trib to West Fork Drakes Creek	TN05110002008-0550	Flow Alterations	No	No
Donaho Branch	TN05130206024-0152	Siltation/E.coli	Yes	Yes

III. Non-Analytical Monitoring

Visual Stream Surveys and Unavailable Parameter Inventories must be performed on each stream segment within the MS4 jurisdiction with unavailable parameters for siltation, habitat alteration, pathogens, and nutrients to identify and prioritize sources of these pollutants of concern. If a stream segment is identified as having unavailable parameters of concern, it is recommended that visual stream surveys be performed throughout the entire HUC-12 sub-watershed including that stream segment.

At a minimum, a visual stream survey must be performed immediately upstream and downstream of each MS4 outfall that discharges into that stream segment. The permittee shall refer to existing survey protocols such as the ones available through the Natural Resources Conservation Service, State of Maryland Department of Natural Resources, and/or the State of Tennessee Habitat Assessment Protocol and related Stream Survey Field Sheets. Permittees have the flexibility to select or modify a protocol to complement the existing MS4 program.

All stream segments with unavailable parameters in the permitted jurisdiction must be surveyed in a five-year period.

IV. Record Keeping

When the permittee conducts monitoring of stormwater discharges, or of receiving waters, it must comply with the following:

a. Representative monitoring. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity; and

b. Test Procedures. Monitoring results must be conducted according to test procedures approved under 40 CFR § 136.

Records of monitoring information shall include:

a. The date, exact place indicated by latitude and longitude, and time of sampling or measurements;

b. The names(s) of the individual(s) who performed the sampling or measurements;

c. The date(s) analyses were performed;

d. The names of the individuals who performed the analyses;

e. The analytical techniques or methods used; and

f. The results of such analyses.

V. City of Portland Future Contracts for Analytical & Non-Analytical Monitoring

The City of Portland will enter contractual agreements to meet the appropriate Analytical & Non-Analytical Monitoring permit requirements.

This monitoring plan will be included in the City's Stormwater Management Plan. The records and results of analytical and non-analytical monitoring will be submitted to the division in the subsequent annual report. A summary of non-analytical activities and results will also be submitted in the subsequent annual report.

Summary

The main goal of the SWMP is to reduce the discharge of pollutants into local water bodies and to identify activities or structural improvements that help improve the quality and reduce the quantity of stormwater runoff. BMPs have been developed and are in place to help reduce the discharge of pollutants to the storm drain system and are updated as needed to comply with changes to the NPDES permit requirements.

The City of Portland will survey the same impaired stream segments which TDEC has previously tested within the City's corporate boundary. Data will be collected for e.Coli and siltation analyses and submitted to TDEC. This data, as it's collected, will be included with the City's annual MS4 report.

Only until data is collected, analyzed, mapped, and documented, will the sources of pollutants be targeted more accurately. Continuing to physically walk the streams and identifying outfalls and condition of the stream's corridors will also aid in this process. In addition, the City will continue to apply the terms of its MS4 permit to the fullest extent, ensuring existing BMPs are implemented to meet the waste load allocations for each water body. This allows the City to determine the need for the possibility of new BMPs to be created and implemented.

At the end of the new Phase II permit, the City hopes to have a level of information needed to determine the point and non-point sources of pollutants along these impaired streams so the City of Portland and TDEC can further enforce regulatory measures to those causing pollution to our water bodies. The ultimate goal is to remove each impaired water body within Portland's jurisdiction from EPA's 303(d) list of impaired streams.

An annual report is submitted by the City of Portland to TDEC by September 30, and includes the status of compliance with permit conditions, an assessment of the appropriateness and effectiveness of stated BMPs, status of identified measurable goals, results of information collected and analyzed, includes monitoring data collected during the reporting period, proposed changes to the overall stormwater management plan and why they are needed, and any changes in the person(s) implementing and coordinating the stormwater management plan.