

# **Illicit Discharge Detection and Elimination Plan**

*For the*

**City of Westbrook, Maine**

*For the*

**2022 General Permit for Storm Water Discharges  
from Municipal Separate Storm Sewer Systems**



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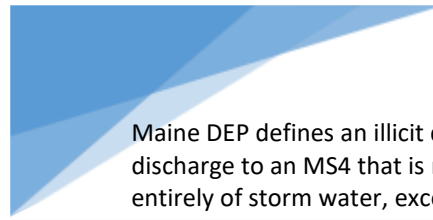
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## INTRODUCTION

The City of Westbrook is subject to the requirements of the Maine Department of Environmental Protection (Maine DEP) General Permit for Storm Water Discharges from Municipal Separate Storm Sewer Systems (hereafter referred to as the MS4 General Permit).



Maine DEP defines an illicit discharge as any discharge to an MS4 that is not composed entirely of storm water, except that the following are not considered illicit discharges:

- Discharges authorized under a Maine DEP permit (38 M.R.S §413.)
- Uncontaminated groundwater,
- Water from a natural resource (such as a wetland), or
- an allowable non-storm water discharge.

See Section 3.0 of this Plan for a list of the allowed non-storm water discharges.

The MS4 General Permit requires permittees to address six Minimum Control Measures throughout the City's Urbanized Area:

1. Education/Outreach on Storm Water Impacts
2. Public Involvement and Participation
3. Illicit Discharge Detection and Elimination (IDDE)
4. Construction Site Storm Water Runoff Control
5. Post-Construction Storm Water Management in New Development and Redevelopment
6. Pollution Prevention/Good Housekeeping for Municipal Operations

This document describes the IDDE Plan for the City of Westbrook, Maine. The IDDE Plan described in this document fulfills the Minimum Control Measure 3 IDDE requirements specified in Part IV.C.3.b of the MS4 General Permit.

### 1.1 IDDE Responsibilities in the City of Westbrook

The City's Director of Engineering and Public Services is responsible for overall permit compliance and for implementation of this IDDE Plan. The following other City personnel support implementation of this Plan:

Public Services staff: conduct outfall, ditch and catch basin inspections and monitoring, and conduct illicit discharge investigations, supported by third party contractors where necessary.

Director of Engineering and Public Services: is primary administrator for ArcGIS ESRI licensing (for mapping).

Planning: facilitates any required ordinance changes related to non-stormwater discharges through Planning Board.

Code Enforcement Officer/Health Inspector: assists Public Services staff in illicit discharge investigations when needed (e.g., if plumbing inspections are needed).

## 1.2 Amendments and updates to the IDDE Plan

The MS4 General Permits are designed to provide coverage for five-year periods. The first MS4 General Permit applicable to the City of Westbrook became effective in 2003 and expired in 2008. Subsequent General Permits were issued, providing the City with continuous coverage for their storm water discharges.

This IDDE Plan has been developed to meet the requirements of the 2022 MS4 General Permit.

This Plan will be updated if any of the following occur:

- a new permit is issued which changes the requirements described in this IDDE Plan document,
- the City of Westbrook identifies that the Plan is not effective,
- municipal operations change and need to be reflected in this Plan.

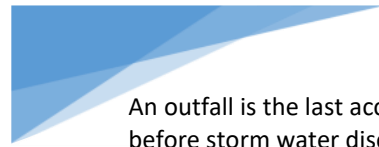
The Director of Engineering and Public Services will either modify this IDDE Plan or engage a third party to update the document.

## 1.3 Typical Illicit Discharges

The Center for Watershed Protection (CWP) developed a comprehensive IDDE Manual in 2004 and provided an abbreviated update in 2011 which classifies illicit discharges into three categories related to frequency of discharge. This categorization allows communities to develop a comprehensive IDDE Plan that will address all kinds of illicit discharges. The three categories of illicit discharges identified in the CWP manual are described below along with examples of the types of discharges that may be encountered:

1. Transitory illicit discharges are typically one-time events resulting from spills, breaks, dumping, or accidents. Examples of transitory illicit discharges include:

- a. paint equipment rinse water
- b. carpet cleaning water
- c. sediment from construction sites
- d. wash water from vehicles other than individual residential car washing by an owner
- e. oil or gasoline spill from a vehicle crash or other source
- f. yard waste
- g. litter or pet waste



An outfall is the last accessible point before storm water discharges to a water body. Some things that are NOT outfalls include: driveway culverts that connect ditch segments, culverts that convey water bodies under roadways, and pipes that discharge to other storm water infrastructure elements.

Transitory illicit discharges are often reported to an authority through a citizen complaint line or following observation by a municipal employee during regular duties. Because they are not recurring, they are the most difficult to investigate, trace, and remove. The best method to reduce transitory discharges is through general public education, education of municipal personnel to minimize spills and accidents, tracking of discharge locations (to identify potential patterns associated with spills), and enforcement of an illicit discharge ordinance.

2. Intermittent illicit discharges occur occasionally over a period of time (several hours per day, or a few days per year). Intermittent discharges can result from legal connections to the storm drain system, such as a legal sump pump connection that is illegally discharging washing machine water, a single home sanitary connection, or from illegal connections such as floor drains from industrial or commercial operations. Intermittent discharges can also result from activities such as excessive irrigation or wash down water from exterior areas. The 2022 General Permit requires that MS4s consider illicit discharges

that might result from dumping. One example of this would be trash or litter dumped in/near stormwater structures might leak leachate into the system intermittently. Because intermittent discharges are longer lasting than transient, they are more likely to be discovered during an opportunistic or regularly scheduled inspection. They are less difficult to trace and remove than transitory discharges but can still present significant challenges. These discharges can have large or small impacts on water bodies depending on pollutant content.

3. Continuous illicit discharges are typically the result of a direct connection from a sanitary sewer, overflow from a malfunctioning septic system, or inflow from a nearby subsurface sanitary sewer that is malfunctioning. Continuous illicit discharges are usually easiest to trace and can have the greatest pollutant load but are typically the costliest and most time consuming to correct because they likely involve construction and alteration of subsurface connections. (CWP and Robert Pitt 2004)

#### 1.4 Overview of IDDE Plan Components

The MS4 General Permit requires an IDDE Plan be developed and implemented to assist the City in locating and eliminating Illicit Discharges. An overview of each component of the Plan is provided in this subsection, and the remaining sections of this document describe how the City of Westbrook is implementing each component.

- Development of a watershed-based map: The City is required to develop a watershed-based map of the storm sewer system infrastructure including: catch basins, connecting surface and subsurface infrastructure, the direction of in-flow and out-flow pipes, and the locations of all discharges from the City's MS4 outfalls into any other interconnected MS4 or receiving water. The catch basins and outfalls must have unique identifiers. The following outfall information is included in the map system: the type of outfall (a connected pipe, a culvert, or a ditch), the material, its size, the name and location of the nearest named water body to which it discharges. Section 2.0 of this document describes the City's watershed-based map.
- Authority to Prohibit Illicit Discharges: To the extent allowable under state or local law, the City must effectively prohibit, through an ordinance or other regulatory



mechanism, non-storm water discharges into the system and implement appropriate enforcement procedures and actions. Section 3.0 of this document describes how the City's Non-Storm Water Discharge Ordinance is implemented.

- Identification of High Priority Areas for Inspections: Prior MS4 General Permits required that the City identify priority areas that need to be protected from illicit discharges. The 2022 MS4 General Permit does not have this requirement, but it does require that the City have "Procedures for prioritizing watersheds". The City of Westbrook conducts inspections more frequently than the 2022 MS4 General Permit requires, so they continue to conduct inspections in the priority watershed first. The City's high priority areas are described in Section 4.0 of this document, including a discussion of the basis for determining the high priority areas.
- Procedures to Locate Illicit Discharges (inspections): The City must develop procedures for locating illicit discharges by conducting dry weather outfall inspections and assessing catch basins for evidence of pollutants. The City also conducts opportunistic ditch inspections. The 2022 MS4 General Permit also requires monitoring be conducted on outfalls that are flowing during dry weather. Section 5.0 of this document describes the City's inspection Plan.
- Procedures to Investigate and Remove Illicit Discharges: The City must develop procedures for locating the source of the discharge and procedures for the removal of the source. Sections 6.0 and 7.0 of this document describe how the City investigates potential discharges to determine their sources and removes illicit discharges once the source is discovered.
- Procedures to Document Illicit Discharges: The City must develop procedures for documenting actions and evaluating impacts on the storm sewer system subsequent to the removal. Section 8.0 describes how the City tracks illicit discharges.

Section 9.0 of this document describes the record retention requirements of the MS4 General Permit and Section 10.0 of this document provide references.

## **2.0 STORMWATER INFRASTRUCTURE MAP**

The City of Westbrook maintains storm water infrastructure information in Geographic Information System (GIS) format. Westbrook's stormwater map was created from GPS data

collection, review of subdivision plans, review of Maine Department of Transportation plans, and from Public Services knowledge of storm water infrastructure. Field verification has been used when needed to refine locations and infrastructure information. The City's Director of Engineering and Public Services has overall responsibility for data integrity.

Storm water infrastructure information is available to the public via the City website with additional information provided when requested. The following subsections provide general information on the infrastructure naming protocols and procedures in use that keep the maps updated.

### 2.1 Infrastructure Naming Protocols

The City of Westbrook has historically referenced eight watersheds within its City Boundaries. In this document, to be consistent with the US Geologic Survey Hydrologic Unit Code (HUC) national naming system, these areas are referred to as "Drainage areas" and are technically HUC 14 level drainage areas. The areas are shown on the figure contained in Attachment A.

Each drainage area has a is designated by the first letter of the name of the drainage area to distinguish it from the other areas as follows:

- Presumpscot River Drainage area is designated as "P" series,
- Mill Brook Drainage area is designated as "M1" series,
- Stroudwater River Drainage area is designated as "S" series,
- Highland Lake Drainage area is designated as "H" series,
- Minnow Brook Drainage area is designated as "M2" series to distinguish from Mill Brook,
- Fore River (Nasons Brook) Drainage area is designated as "F" series,
- Capisic Brook Drainage area is designated as "C" series,
- Long Creek Drainage area is designated as "L" series.,

## Structure Naming Protocols

- Outfalls in the City have a 4-digit unique identifier in the format: XYYY, where the X is either P, M1, S, H, M2, F, C or L depending on the location and associated series number and the Ys are numeric values between 000 and 999.
- Catch basins carry a unique four-digit identifier in the format: CB-YYYY.
- Ditch names are XX-YYY where XX is the first two letters of the drainage area and YYY is the next sequential number not limited by series that series.
- Ditch outfalls follow the same naming protocol as ditches. Ditch outfalls are inspected during ditch inspections.

If a structure is replaced in its same location, it is not renamed. If new outfalls are discovered or created, they will be assigned an identifier following the XYYY protocol where X is the drainage area signifier and YYY is the next sequential number in that series.

## 2.2 Procedures to Update Map of Infrastructure

The following describes the scenarios under which changes to the storm drain system are typically made, and how the map subsequently gets updated:

1. Generally, the Public Services Department constructs minor changes to the system based on immediate or planned need without formal design drawings in the field and in real time. When the Public Services Department makes changes to the storm drain infrastructure, the online GIS layer is updated to reflect these changes using the Public Services Department iPad, as an interface to the online files. Alternatively changes can be made by a private contractor. Though these changes can be made within weeks of the physical changes on the ground, they are made quarterly at minimum.

2. More significant changes are typically constructed after preparation of formal design drawings, whereupon either the Public Services Department or a private contractor constructs the changes. Where a private contractor constructs the changes, the City requires a formal as-built plan be prepared and submitted to the Director of Engineering and Public Services in electronic format, so that the infrastructure can be imported into the GIS. A third-party consultant is used to update the infrastructure for large projects such as this. These changes are typically made on an as needed basis.

### **3.0 AUTHORITY TO PROHIBIT ILLICIT DISCHARGES**

The City of Westbrook authority to prohibit illicit discharges became effective July 6, 2009 when the City passed a Non-Stormwater Discharge Ordinance. The ordinance was created from a model ordinance developed by the Maine Municipal Association for cities that are regulated by the MS4 General Permit. In 2016, the City revised its Ordinances to create a stand-alone Stormwater Chapter and the content of the Non-Stormwater requirements is now Chapter 281; Article VI, Section 87-95.

The Ordinance allows the following non-storm water discharges to the storm drain system as long as they do not cause or contribute to violations of water quality standards:

- landscape irrigation;
- diverted stream flows;
- rising ground waters;
- uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20));
- uncontaminated pumped ground water;
- uncontaminated flows from foundation drains;
- air conditioning and compressor condensate;
- irrigation water;
- flows from uncontaminated springs;
- uncontaminated water from crawl space pumps;
- uncontaminated flows from footing drains;

- lawn watering runoff;
- flows from riparian habitats and wetlands;
- residual street wash water (where spills/leaks of toxic or hazardous materials have not occurred, unless all spilled material has been removed and detergents are not used);
- hydrant flushing and firefighting activity runoff;
- water line flushing and discharges from potable water sources;
- individual residential car washing;
- dye testing with prior verbal notice to the Director of Engineering and Public Services or Wastewater Manager.

The City's Director of Engineering and Public Services and any employee(s) designated by the Mayor are considered the enforcement authorities for this ordinance though Notice's of Violation are issued through the Code Enforcement Office.

Although discharges of hydrant and water line flushing are allowed, they are required to be dechlorinated if they are to be discharged to a portion of the MS4 system which discharges to a small stream. In accordance with the Maine DEP 11/18/2016 Issue Profile for Drinking Water System Discharges to Regulated Small MS4s, the Portland Water District either aerates or dechlorinates during flushing to meet Total Residual Chlorine (TRC) acute water quality criteria as follows:

- Fresh water 19 ug/L (adjusted to 50 ug/L, per the Maine DEP as the reporting limit for available reliable and consistent test methods)
- Marine water 13 ug/L (adjusted to 50 ug/L, per the Maine DEP as the reporting limit for available reliable and consistent test methods)

The Portland Water District flushes the system every three years and provides an annual report to the City describing water dechlorination methods in use and testing results for any flushing conducted.

#### **4.0 IDENTIFICATION OF PRIORITY AREAS**

Prior MS4 General Permits required that the City identify priority areas that need to be protected from illicit discharges. The 2022 MS4 General Permit does not have this requirement, but the City of Westbrook conducts inspections more frequently than the 2022 MS4 General Permit requires, so they continue to conduct inspections in the priority watershed first. The City may also use this prioritization for illicit discharge investigations in the event there are insufficient resources to address all potential illicit discharges simultaneously.

To identify areas within the City that are high priority for illicit discharge inspections, the City continues to consider Mill Brook its highest priority due to the excellent condition of watershed and the importance of the Brook to the annual alewife migration. The City considers its two Urban Impaired Streams the second priority due to their impairments.

The City of Westbrook identified Mill Brook as the highest priority for the following reasons:

1. The importance of the Brook to annual alewife migration, and
2. The healthy condition of both the watershed and the waterbody
3. The watershed is contained entirely in Westbrook allowing the City to maintain watershed and waterbody health through prioritization.

The City of Westbrook identified Capisic Brook as our second priority for the following reasons:

1. Capisic Brook is one of the City's two Urban Impaired Streams
2. Capisic Brook has an established Watershed Management Plan

Below is a complete list of the City's watersheds prioritize from highest to lowest:

1. Mill Brook
2. Capisic Brook
3. Fore River (Nasons Brook) – The City's second Urban Impaired Stream
4. Presumpscot River – The City's largest watershed and a major City amenity
5. Stroudwater River – The largest watershed in the southern half of the City

6. Highland Lake – A waterbody facing challenges but only a small portion of the watershed is contained in Westbrook
7. Minnow Brook – A significantly rural watershed facing comparatively little development pressure
8. Long Creek – Managed independently

## **5.0 PROCEDURES TO LOCATE POTENTIAL ILLICIT DISCHARGES**

The City of Westbrook uses the following methods to locate illicit discharges:

1. Observations during catch basin cleaning
2. Citizen reports of illicit discharge issues
3. Dry weather outfall inspections
4. Outfall Sampling and Analysis (for flowing outfalls and to identify potential illicit discharge sources)
5. Opportunistic Ditch inspections
6. Other opportunistic Inspections

Each of these methods are described in the following subsections. Inspections are completed on the GIS typically accessed through an iPad or cell phone. Attachment B contains a table showing the fields that are completed during inspections using the GIS.

### **5.1 Catch Basin Cleaning Inspections**

Inspections are required every two years by the MS4 General Permit. Public Services employees attempt to inspect 50% of the City's accessible catch basins each year and clean each one unless sediment levels are so low as to prevent removal with a clam shell device. During this inspection process, the employee is also inspecting to assess if any oil, litter, sewage, or other evidence of illicit discharges is present and well as the condition of the catch basin. If the employee sees any evidence of illicit discharges or structural defects, the evidence is documented in the GIS and provided a Supervisor for further action.

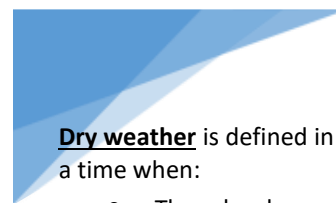
## 5.2 Citizen Reports of Illicit Discharges

Citizen reports of illicit discharge issues received by phone or email are routed to the Public Services Department to be investigated. Most reports are received at the Public Services Department, but occasionally the public will call or email other City staff, who directs the caller to Public Services or forwards the email to Public Services staff.

## 5.3 Dry Weather Outfall Inspections

Though not required by the General Permit, Mill Brook and Long Creek piped outfalls are inspected every year. The remaining six watersheds inspected at least once during the permit cycle.

- Inspections will be performed during periods of dry weather whenever possible.
- Inspections will be performed where field inspections may be performed in a safe and efficient manner;
- Inspections will be performed during periods of no or minimal snow cover and prior to the growth of vegetation (or after leaves have fallen) such that outfalls may be easily spotted;
- Observations will include the following at a minimum: observations of sheen, discoloration, foaming, evidence of sanitary sewage, excessive algal growth and similar visual indicators, and detection of odor
- Photographs may be taken at the time of inspection for either maintenance or illicit discharge documentation.
- MS4 outfalls will be inspected where the City has safe and legal access to the structure to be inspected.
- When maintenance or potential illicit discharge issues are identified, the Director of Engineering and Public Services will be informed so that he may prioritize the work with other required work for the City.



**Dry weather** is defined in the permit as a time when:

- There has been no snow or ice melt for 72 hours or
- There has been no precipitation greater than ¼ inch for 72 hours

If an outfall is inspected within the 72 hour window for rain or melting, and it is not flowing, the inspection can be considered a dry weather inspection.



#### 5.4 Outfall Sampling and Analysis

Outfall sampling and analysis is required under the 2022 MS4 General permit when an outfall is observed to be flowing during dry weather conditions whether or not it has exhibited evidence of an illicit discharge.

Outfalls and/or other structures may also be sampled if other evidence of illicit discharges is observed during inspection. The Director of Engineering and Public Services may solicit the assistance of the Portland Water District or a third-party contractor to collect a sample for field screening depending on the conditions encountered.

A Quality Assurance Project Plan (QAPP) has been developed to provide sampling personnel the information that will assist them in collecting samples, using field equipment and test kits and obtaining analyses. The QAPP describes the sampling procedures that should be used as well as the analytical methods and field equipment that are appropriate for use in investigating potential illicit discharges and flowing outfalls. The QAPP also provides guidance on interpretation of the results obtained so that investigators can make informed decisions about whether to continue investigating a potential source, or whether the results indicate a flowing outfall might be from a natural source. The QAPP is contained in Attachment C to this IDDE Plan.

Wet weather sampling is not required by the MS4 General Permit at this time, but the Public Services Department may choose to conduct wet weather sampling if they suspect a discharge occurs only during wet weather (such as may be the case for failed septic systems).

#### 5.5 Ditch Inspections

Though the 2022 MS4 General Permit does not require ditch inspections be completed, the City

performs ditch inspections on an opportunistic basis and when maintenance work on ditches is completed. The Public Services department trains all members staff on conducting ditch inspections. Training is performed annually and upon hiring.

The ditch inspections are not conducted using an iPad or recorded on the GIS platform unless a potential illicit discharge is found. If an illicit discharge is suspected, conditions, steps to mitigate the situation and the outcome are recorded in the GIS database.

The City follows these guidelines in conducting inspections:

- Field inspection will be performed during periods of dry weather when possible.
- Inspections will be performed during periods low flow where field inspections may be performed in a safe and efficient manner;
- Inspections will be performed during periods of no snow cover and prior to the growth of ditch vegetation such that potential outfalls may be easily spotted;
- Evidence of potential illicit discharges will be documented in the IDDE Tracking Sheet.
- If maintenance issues are identified, the Director of Engineering and Public Services will be informed so that he may prioritize the work with other required work for the City.

## 5.6 Septic System Inspections

The 2013-2018 MS4 General Permit that, by June 30, 2016, the City develop a list of aging (i.e., greater than 20 years old) septic systems in its two highest priority watersheds (Mill Brook and Long Creek), however, Westbrook developed City wide GIS map and spreadsheet of septic parcels. The majority of the parcels are homes greater than 20 years old (approximately 1040) with varying degrees of systems that have been upgraded over time, but to be conservative we have included all the septic parcels on our “watch list”. The City Inspectors are on the roads daily inspecting properties and if any issues should arise that they see, the City promptly engages with property owners to address their septic issues.

Septic is not the predominant sanitary system in our community, as they only represents approximately 13% of the sanitary system for the parcels of Westbrook. The majority of our parcels are on public sewer.

Because this Plan did not yield useful information on septic system failures, it is no longer being conducted, though opportunistic inspections still occur.

### 5.7 Cooperation with other MS4s

Because the Westbrook MS4 infrastructure has interconnections with other MS4s, it may be necessary to conduct cooperative investigations with other MS4s or to inform them of issues associated with the Westbrook infrastructure. The other MS4 contacts with which Westbrook has interconnections are:

*MaineDOT* – Kerem Gungor, [Kerem.Gungor@maine.gov](mailto:Kerem.Gungor@maine.gov), Ph: 207-592-3489

*Town of Falmouth* – Justin Early, [jearly@falmouthme.org](mailto:jearly@falmouthme.org), Ph: 207-699-5371

*Town of Gorham* – Matthew LaCroix, [mlacroix@gorham.me.us](mailto:mlacroix@gorham.me.us), Ph: 207-892-9062

*City of Portland* – Doug Roncarati, [dar@portlandmaine.gov](mailto:dar@portlandmaine.gov), Ph: 207-874-8848

*City of South Portland* – Fred Dillon, [fdillon@southportland.org](mailto:fdillon@southportland.org), Ph: 207-347-4138

*Town of Windham* – Gretchen Anderson, [gaanderson@windhammaine.us](mailto:gaanderson@windhammaine.us), Ph: 207-894-5900 x 6124

## **6.0 PROCEDURES TO INVESTIGATE ILLICIT DISCHARGES**

Investigations of illicit discharge issues are conducted by the Public Services Department. The City relies on visual observations of the location where the illicit discharge was reported as a first step in identifying the source of the illicit discharge. If the evidence of the illicit discharge is still present in the initial structure or location where it was reported, the City uses their knowledge of the infrastructure routing to systematically inspect other structures upstream of the initial

location until either the evidence of the illicit discharge is no longer present, or until they locate a potential source of the illicit discharge.

For example, if evidence of gray water was observed during catch basin cleaning of a separated storm drain system, the Public Services Department would review as-built drawings, and the available GIS, and would inspect drain manholes and/or catch basins upstream of the initial observation until they could isolate one or more locations from which the gray water was likely emanating.

In the event visual observations of the structures cannot identify the source of an illicit discharge, the Director of Engineering and Public Services or Wastewater Manager may employ televising, systematic dye testing, or smoke testing to identify the source. The Director of Engineering and Public Services could conduct dye testing but would need to hire a third-party contractor for smoke testing or televising. Sampling and analysis may also be conducted as described in subsection 5.4.

If no source can be located, the area may be re-inspected to assess if the illicit discharge was a one-time occurrence, or is a repeating occurrence, whereupon additional investigations may be conducted.

## **7.0 PROCEDURES TO REMOVE ILLICIT DISCHARGES**

Once the potential source of the illicit discharge is identified, the Director of Engineering and Public Services, Code Enforcement Officer, Wastewater Manager or Sustainability Coordinator would identify and contact the responsible party in order to initiate removal or discontinuation of the illicit discharge.

If the illicit discharge is caused by a private entity, the Director of Engineering and Public Services

or Code Enforcement Officer may invoke the authority granted him/her under the Non-Stormwater Discharge Ordinance (See section 3.0 of this IDDE Plan). City staff typically provides initial verbal or email notice to any responsible party, then follows up with a Notice of Violation. The Notice of Violation specifies the illicit discharge be removed within 60 days of its source identification but allows that if removal within 60 days is not possible, the responsible party must work with the Public Services Department and/or Code Enforcement as appropriate to establish a schedule to remove the illicit discharge as expeditiously as possible.

If the illicit discharge is caused by the City, the Director of Engineering and Public Services, a Code Enforcement Officer or the Sustainability Coordinator would contact the department most responsible and work with them to remove or discontinue the illicit discharge within 60 calendar days of identification of the source or would develop a schedule to expedite elimination.

## **8.0 PROCEDURES TO DOCUMENT ILLICIT DISCHARGES**

The City will document the progress of investigating and removing illicit discharges using an IDDE Tracking Sheet. The spreadsheet is maintained on a network drive, assessable to all appropriate City staff. Each year, the City is required to complete an annual report summarizing the activities completed under the MS4 Plan. The Sustainability Coordinator will print or retain an electronic copy of the IDDE Tracking Sheet for the year as back-up documentation of investigative and removal work completed.

## **9.0 RECORDS RETENTION**

The Sustainability Coordinator will retain paper or electronic files of inspections and investigations including laboratory reports, for a minimum of three years after expiration of the MS4 General Permit Term. If the General Permit expires on June 30, 2021, the files may be discarded July 1, 2024.

## **10.0 REFERENCES**

CWP and Robert Pitt 2004. *Illicit Discharge Detection and Elimination Manual – A Guidance Manual for Plan Development and Technical Assessments*. October 2004 Available:

<http://cfpub1.epa.gov/npdes/stormwater/idde.cfm>

Aquarion Engineering Services and Casco Bay Estuary Partnership 2004. *Guidelines and Standard Operating Procedures for Stormwater Phase II Communities in Maine*. Available:

<http://www.thinkbluemaine.org/docs/index.htm>

CWP and Robert Pitt 2011 *Illicit Discharge Detection and Tracking Guide* Available:

<http://www.cwp.org/2013-04-05-16-15-03/idde>

USEPA New England Bacterial Source Tracking Protocol 2012. Provided by USEPA to Integrated Environmental Engineering. Available [at](#)

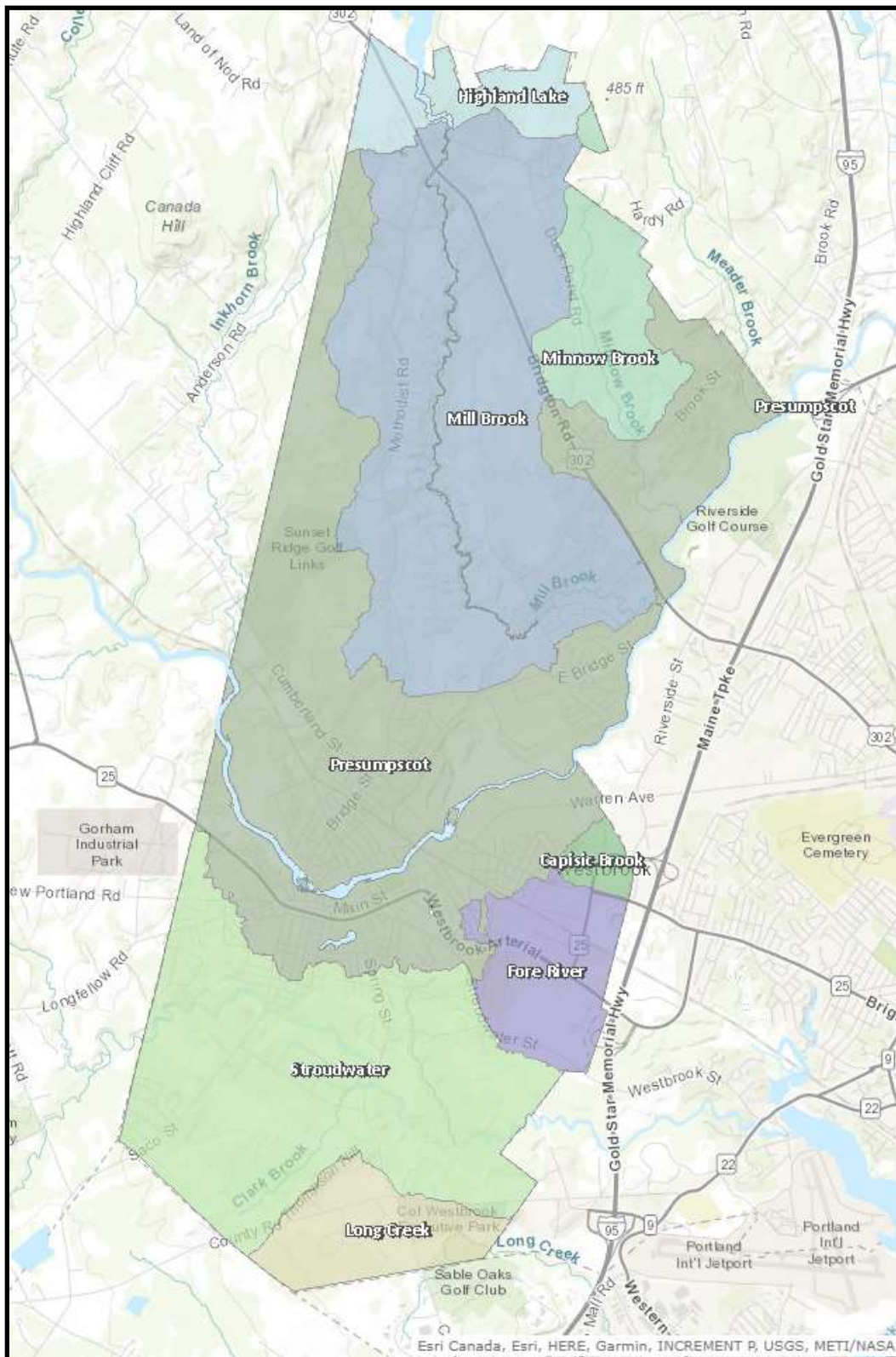
<https://www3.epa.gov/region1/npdes/stormwater/ma/2014AppendixI.pdf>

# **ATTACHMENT A**

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## **WESTBROOK WATERSHED MAP**

# City of Westbrook Watershed Map





# **ATTACHMENT B**

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## **INSPECTION FIELDS AND DOMAINS IN GIS**

IDDE Inspections using ArcGIS Online and Collector App:

As an inspector is using the iPad in the field, they tap on the structure or element they are inspecting and edit the inspection fields by either typing data or using the drop down entries where available. The following is a summary of the available fields associated with each type of inspection. Those items in BOLD are required as part of the MS4 General Permit.

\*\* Additional fields, new for the 2022 General Permit, will be added prior to the start date of the permit\*\*

MS4 INSPECTION	GIS FIELDS AND DOMAINS COMPLETED AS PART OF INSPECTION
Outfalls	<p><b>Outall ID – Auto populated when selected</b></p> <p><b>Inspection Date – Auto populated</b></p> <p>Inspection Time – Auto populated</p> <p>Inspector – Select from drop down menu of personnel</p> <p><b>Recent Precipitation – Yes/No</b></p> <p><b>Precipitation (inches) – Manual entry</b></p> <p>Approximate Temp – Manual entry</p> <p>Wind Present – Yes/No</p> <p>Submerged – No/Partially/Fully</p> <p><b>Pipe Material – RCP/PVP/STEEL/CMP/HDPE/OTHER</b></p> <p>Pipe Shape – Circular/Elliptical/Box/Other</p> <p><b>Pipe Dimension 1 – Manual entry</b></p> <p><b>Pipe Dimension 2 – Manual entry</b></p> <p>Open Drain – Concrete/Earthen/Rip Rap/Other</p> <p><b>Debris: Foam, Scum, Oil, Vegetation, Solids – Individually select Yes/No</b></p> <p><b>Odor – None/Musty/Sewerage</b></p> <p><b>Water Clarity – Clear/Cloudy/Opaque</b></p> <p><b>Pipe Flow – None/Trickle/Steady/ ¼ Pipe or More</b></p> <p>Seepage Flow - None/Trickle/Steady/ ¼ Pipe or More</p> <p><b>Flow Color – Clear/Brown/Black/Orange/Green/No Flow</b></p> <p>Sediment – Open/1/4 Full/1/2 Full/3/4 Full/Plugged</p> <p>Sediment At Outlet – None/Slight/Significant/Heavy</p> <p>Structure Condition – Excellent/Good/Fair/Poor/Needs Attention</p> <p>Litter Present – Yes/No</p> <p>Yard Waste Present – Yes/No</p> <p>Comments – Manual entry</p> <p>Follow Up – yes/No</p> <p>Attachments – Manual attachment</p>
Catch Basin (Only Recorded as “Cleaning”)	<p><b>Information Collected at Time of Cleaning</b></p> <p><b>Feature ID – Auto populate</b></p> <p><b>Cleaning Date – Auto populate</b></p> <p>Condition – Excellent/Good/Fair/Poor/Needs Attention</p> <p>Flow – None/Minimal/Significant/Flooded Normal</p> <p>Excess Sediment – Yes/No</p> <p>Leaves – Yes/No</p>

MS4 INSPECTION	GIS FIELDS AND DOMAINS COMPLETED AS PART OF INSPECTION
	<p>Rocks - Yes/No  <b>Odor – Yes/No</b>  <b>Pet Waste – Yes/No</b>  <b>Foam Soap – Yes/No</b>  <b>Sewage – Yes/No</b>  Follow Up – Yes/No  Litter – Yes/No  Vegetation – Yes/No  <b>Oil Sheen – Yes/No</b>  Inspected By - Select from drop down menu of personnel  Vehicle – Vac/Clam  Watershed – Select from drop down menu of watersheds  ***Additional structure information is available but not part of the cleaning/inspection form. Fields available upon request.***</p>
Ditches	<p>ID – Auto populated  Inspector – Drop down list of personnel  Date/Time – Auto populate  Wind Present – Yes/No  Temperature – Manual entry  Precipitation in last 2 days – Yes/No  Precipitation Depth – Manual entry  Yard Waste – Yes/No  Trash/Litter Present -Yes/No  Debris/Pollution Types – Foam/Floating Green Scum/Oil or film/Vegetative Mat/Sewage Solids/None  Odor – None or natural/Musty/Sewage or Septic  Standing Water – Yes/No/Potential Mosquito Breeding  Water Clarity – Clear/Cloudy/Opaque/Not Applicable  Water Color – Clear/Brown/Orange/Green/Black/Not applicable  Inlet Condition – Free of obstructions/Stable/Unstable  Outlet Condition – Free of obstructions/Stable/Unstable  Sediment Accumulation – Natural/Depth less than 2 inches/Depth greater than 2 inches/Plugged with sediment  Structural Condition – Stable/Unstable/Woody Vegetation Present/Riprap Displaced  Vegetation Coverage – Grass greater than 90%/10% of greater bare soil/Natural  Vegetation Height – 3-6 inches/6-12 inches/Excessively tall/Less than 3 inches  Vegetation Type – Normal grass/Invasive/Poisonous/Weeds  Erosion/Scouring – Yes/No  Follow Up Required – Yes/No  Follow Up Reason – Manual entry  Comment – Manual entry</p>

# **ATTACHMENT C**

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## **QUALITY ASSURANCE PROJECT PLAN (QAPP)**

**Attached as Separate File**

## **ATTACHMENT D**

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### **COORDINATION LETTERS WITH INTERCONNECTED MS4S**



*Water Resource Protection*

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*Fred Dillon, Stormwater Program Coordinator*

March 31, 2021 (sent via email)

Lynn Leavitt  
Sustainability Coordinator  
City of Westbrook  
Public Services Department  
371 Saco Street  
Westbrook, ME 04092

**RE: Notice of Intent and Stormwater Management Plan Filing for 2022 MS4 General Permit**

Dear Lynn:

Earlier today, the City of South Portland filed a [Notice of Intent and Stormwater Management Plan](#) to comply with Maine's 2022 MS4 General Permit. Under this permit, we are required to notify all regulated MS4s with public stormwater systems that interconnect with the City's public stormwater system.

The City of South Portland has interconnections with your MS4 system or stormwater outfalls discharging to shared water resources (please see our online infrastructure map [here](#)). We will notify you of any illicit discharges in South Portland that could affect either your MS4 system or shared water resources. We respectfully request that you do the same. In the event of an emergency after hours, please contact South Portland's Public Safety Dispatch at 911.

I would appreciate it if you would forward this letter and/or request to any first responders or other municipal staff who may be in a position to coordinate spill response efforts with South Portland. Please contact me if you have any questions and thanks for your cooperation.

Sincerely,

A handwritten signature in black ink, appearing to read "Fred Dillon".

Fred Dillon

Cc: Brad Weeks – South Portland Water Resource Protection Department Director  
Dave Thomes – South Portland Collection Systems Division Manager  
Justin Gove – South Portland Civil and Transportation Engineer  
Doug Howard – South Portland Public Works Director  
Melissa Hutchins – South Portland Public Works Superintendent  
Jim Wilson – South Portland Fire Chief

# Town of Windham

8 School Road  
Windham, ME 04062

voice 207.892.1907

fax 207.892.1916

March 23, 2021

Ms. Lynn Leavitt, Sustainability Coordinator  
City of Westbrook, Public Services Department  
371 Saco Street  
Westbrook, Maine 04092

RE: Interconnected MS4 Coordination

Dear Ms. Leavitt,

The Town of Windham has filed a notice of intent to comply with the Maine General Permit for the discharge of stormwater from the municipal separate storm sewer system (MS4). Under this permit, we are required to coordinate with interconnected and nested MS4 permittees on spill response efforts in order to improve the health of Maine waters.

The Town of Windham has interconnections with your MS4. We will notify you if there is a spill of hazardous or non-hazardous substances in Windham that could affect your MS4 and we request that you do the same. In the event of an emergency after hours, please contact Windham Public Safety Dispatch at 207-892-2525.

Please forward this letter and/or request to any first responders or other municipal staff who may be able to coordinate spill response efforts with Windham. Please contact me if you have any questions regarding this letter and thank you for your cooperation in this matter.

Sincerely,

*Gretchen Anderson*

Gretchen Anderson  
Environmental & Sustainability Coordinator

gaanderson@windhammaine.us  
Office: 207-777-1948  
Cell: 207-310-7393

Cc: Barry Tibbetts, Town Manager  
Brent Libby, Fire Chief  
Kevin Schofield, Police Chief

[www.windhammaine.us](http://www.windhammaine.us)



March 24, 2021

Lynn Leavitt, Sustainability Coordinator  
City of Westbrook  
371 Saco Street  
Westbrook, ME 04092

RE: Interconnected MS4 Coordination for Illicit Discharges

Dear Lynn:

As part of the Maine General Permit for the discharge of stormwater from the municipal separate storm sewer system (MS4), the Town of Scarborough is required to coordinate with neighboring and nested MS4 permittees. The primary aim for this coordination is to ensure that, in the event of a spill or other incident that could result in an illicit discharge crossing into neighboring MS4s, there can be coordination on a spill response to improve the health of Maine's water resources.

In accordance with the MS4 General Permit, the Town developed and implements an Illicit Discharge Detection and Elimination (IDDE) Plan. As a nested or interconnected MS4, we want to make you aware of the Town's IDDE notification system. We will notify you of any illicit discharges in Scarborough that have potential to affect either your MS4 or shared water resources. We respectfully request that you do the same by contacting Scarborough Dispatch at (207) 883-6361 immediately upon discovery of the discharge.

Also, the Town intends to apply for coverage under the 2022 MS4 General Permit. As such, we are preparing our Stormwater Management Plan and updating our IDDE Plan. This letter constitutes notice that we are applying for continued coverage. A formal public notice was also provided in the 2/26/21 issue of the *Portland Press Herald*.

Please forward this letter and/or request to any first responders or other municipal staff who may be in a position to coordinate spill response efforts with Scarborough. Please contact me if you have any questions.

Sincerely,  
TOWN OF SCARBOROUGH

Angela Blanchette, P.E.  
Town Engineer

Town of Scarborough

259 US Route One | PO Box 360 | Scarborough, ME 04070 | P: 207.730.4000 | [scarboroughmaine.org](http://scarboroughmaine.org)





CITY OF PORTLAND  
Department of Public Works  
Christopher C. Branch, P.E., Director

March 15, 2021

Eric Dudley, PE  
Director of Engineering & Public Services  
City of Westbrook  
2 York St  
Westbrook, ME 04092

RE: Spill Response Coordination – Interconnected MS4s

Dear Eric Dudley:

The City of Portland is hereby informing you that it will be filing a Notice of Intent (NOI) to **comply with the Maine General Permit for the Discharge of Stormwater From Small Municipal Separate Sewer Systems (MS4) with the Maine Department of Environmental Protection (DEP) by March 31, 2021.** The permit will cover discharges from the MS4 to the Capisic Brook, Dole Brook, Fall Brook, Nasons Brook, Long Creek, Stroudwater River, Presumpscot River, Fore River, Capisic Pond, Deering Oaks Pond, Back Cove, Portland Harbor and Casco Bay. A copy of the NOI, Stormwater Management Plan and General Permit will be posted on the City of Portland website and the Maine DEP website (<https://www.maine.gov/dep/comment/index.html>) and public comment will be taken during the Maine DEP review period.

The City of Portland is currently regulated by the General Permit for the Discharge of Stormwater From Small Municipal Separate Storm Sewer Systems (MS4) issued under the Maine Pollution Detection and Elimination System (MEPDES) program administered by the Maine DEP. Under this permit, the City is required to coordinate spill response efforts with other MS4 regulated entities with interconnected and/or nested stormwater systems. Our records indicate your stormwater system connects to the City of Portland's infrastructure (pipes, catch basins, ditch lines, or other conveyances).

Therefore, if there are any spills of hazardous or non-hazardous substances that have the potential to enter the City's stormwater system, please notify staff directly (contact information below). In the event of an emergency after hours, please contact Public Works Dispatch at 207-874-8493.

Please be certain to forward this request to any first responders or other staff that might coordinate spill response efforts. Please do not hesitate to contact me if you have any questions. Thank you for your consideration of this matter.

212 Canco Road, Ste B • Portland, ME 04103 • 207-874-8801  
cbranch@portlandmaine.gov • [www.portlandmaine.gov](http://www.portlandmaine.gov)

*Benjamin N. Pearson*

City of Portland  
Department of Public Works  
Water Resources Division  
212 Canco Road, Suite B  
Portland ME 04103

**Compliance Section Coordinator:**

**Ben Pearson**

[bnp@portlandmaine.gov](mailto:bnp@portlandmaine.gov)

**(207) 874-8843**

**Stormwater Program Coordinator:**

**Douglas Roncarati**

[dar@portlandmaine.gov](mailto:dar@portlandmaine.gov)

**(207) 874-8848**

212 Canco Road, Ste B • Portland, ME 04103 • 207-874-8801

[cbranch@portlandmaine.gov](mailto:cbranch@portlandmaine.gov) • [www.portlandmaine.gov](http://www.portlandmaine.gov)