



TOWN OF OLD ORCHARD BEACH, MAINE

DRAFT Stormwater Management Plan

JULY 2022

MS4 General Permit: Effective July 1, 2022

Initial SWMP (submitted to Maine DEP): March 30, 2021

Revised SWMP (submitted to Maine DEP): August 25, 2021

Modified SWMP (submitted to Maine DEP): July 20, 2022

Stormwater Management Plan
Town of Old Orchard Beach, Maine

July 2022

Prepared By:

[Wright-Pierce](#)

11 Bowdoin Mill Island, Suite 140
Topsham, ME 04086
207.725.8721 | wright-pierce.com

Stormwater Management Plan Revision Page

The SWMP was initially submitted to Maine Department of Environmental Protection (DEP) on March 30, 2021. The following is a list of revisions:

No.	Revision Date	Description	Type of Revision
1	August 25, 2021	Updated to address Maine DEP comments	Submitted to Maine DEP
2	July 20, 2022	Updated to incorporate the Permit Modification and the Department Order	Submitted to Maine DEP

Table of Contents

Section 1	Introduction	1-1
1.1	Overview of Regulatory Program	1-1
1.2	Cooperation Between Regulated Communities	1-1
1.3	Overview of the Stormwater Management Plan	1-2
1.4	Water Quality and Discharges to Impaired Waters	1-2
1.4.1	State Water Quality Assessments	1-3
1.4.2	Old Orchard Beach Water Quality Status	1-5
1.4.3	Progress on Addressing Impairments and Approach to BMP Development	1-7
1.5	Priority Watersheds	1-10
1.6	Obtaining Coverage to Discharge	1-10
1.7	SWMP Availability	1-10
1.8	SWMP Modifications During the Permit Cycle	1-11
1.9	Annual Compliance Report and Record Keeping	1-11
Section 2	Minimum Control Measures	2-1
2.1	MCM 1 Education/Outreach Program	2-1
2.1.1	BMP 1.1 Outreach to Raise Awareness Campaign	2-1
2.1.2	BMP 1.2 Outreach to Change Behavior Campaign	2-4
2.1.3	BMP 1.3 Effectiveness Evaluation	2-6
2.1.4	BMP 1.4 Optional Activities	2-7
2.2	MCM 2 Public Involvement and Participation	2-7
2.2.1	BMP 2.1 Public Notice Requirement	2-7
2.2.2	BMP 2.2 Public Event	2-8
2.3	MCM 3 Illicit Discharge Detection and Elimination	2-8
2.3.1	BMP 3.1 Continue to Implement the Illicit Discharge Ordinance	2-8
2.3.2	BMP 3.2 Maintain a Written IDDE Plan	2-8
2.3.3	BMP 3.3 Maintain Storm Sewer System Infrastructure Map	2-9
2.3.4	BMP 3.4 Conduct Infrastructure Inspections and Monitor Flowing Outfalls	2-9
2.3.5	BMP 3.5 Conduct Investigations on Suspect Illicit Discharges	2-9
2.3.6	BMP 3.6 Allowable Non-Stormwater Discharges Identified as Significant Contributors of Pollutants	2-10
2.4	MCM 4 Construction Site Stormwater Runoff Control	2-10
2.4.1	BMP 4.1 Erosion and Sediment Control Ordinance	2-11
2.4.2	BMP 4.2 Subdivision and Site Plan Review Procedures	2-11
2.4.3	BMP 4.3 Procedures for Notifying Construction Site Developers and Operators	2-11
2.4.4	BMP 4.4 Procedures to Control Waste at Construction Sites	2-12
2.4.5	BMP 4.5 Conduct and Document Construction Site Inspections	2-12
2.5	MCM 5 Post-Construction Stormwater Management in New Development/Redevelopment	2-12
2.5.1	BMP 5.1 Implement Strategies to Prevent or Minimize Water Quality Impacts	2-13

	2.5.2	BMP 5.2 Maintain Post Construction Ordinance	2-13
2.6	MCM 6	Pollution Prevention/Good Housekeeping for Municipal Operations	2-14
	2.6.1	BMP 6.1 Operations at Municipally Owned Grounds and Facilities	2-14
	2.6.2	BMP 6.2 Municipal Employee Training	2-14
	2.6.3	BMP 6.3 Continue Street Sweeping Program	2-14
	2.6.4	BMP 6.4 Cleaning of Catch Basins	2-15
	2.6.5	BMP 6.5 Maintain and Upgrade of Stormwater Conveyances, Structures, and Outfalls	2-15
	2.6.6	BMP 6.6 Stormwater Pollution Prevention Plan (SWPPP)	2-15
2.7		Urban Impaired Stream BMPS	2-15
	2.7.1	BMP 7.1 Targeted Behavior Change: YardScaping 2.0	2-15
	2.7.2	BMP 7.2 Conduct Investigation of Select Segments of Sanitary Sewer System within New Salt Road Tributary Subwatershed	2-16
	2.7.3	BMP 7.3 Investigate Sewer Connection Issues Identified through Smoke Testing Effort in New Salt Road Tributary Subwatershed	2-17
	2.7.4	Optional BMP 7.4 Enhanced Pet Waste Behavior Change Campaign	2-18
Section 3		General Requirements	3-1
	3.1	Duly Authorized Representative	3-1
	3.2	Certification	3-1

List of Appendices

Appendix A	Urbanized Area and Goosefare Brook Watershed Maps
Appendix B	Notice Of Intent (NOI) and Permittee-Specific DEP Order
Appendix C	Public Notice and Summary of Comments Received
Appendix D	Education & Outreach Tools, Levels of Effort, and Effectiveness Benchmarks
Appendix E	Illicit Discharge Detection and Elimination (IDDE) Plan
Appendix F	Construction Site Inspection Forms
Appendix G	Duly Authorized Representative

List of Tables

Table 1-1	Waterbodies in Old Orchard Beach with Discharges from the Regulated Small MS4	1-6
-----------	---	-----

List of Abbreviations

MS4	Municipal Separate Storm Sewer System
DEP	Department of Environmental Protection
SWMP	Stormwater Management Plan
USEPA	United States Environmental Protection Agency
ISWG	Interlocal Stormwater Working Group
CCSWCD	Cumberland County Soil and Water Conservation District
BASWG	Bangor Area Stormwater Working Group
AVSWG	Androscoggin Valley Stormwater Working Group
SMSWG	Southern Maine Stormwater Working Group
BMP	Best Management Practice
MCM	Minimum Control Measure
IDDE	Illicit Discharge Detection and Elimination
TMDL	Total Maximum Daily Load
WLA	Waste Load Allocation
DMR	Department of Marine Resources
SWAT	Surface Water Ambient Toxics
VRMP	Volunteer River Monitoring Program
E. coli	Escherichia coli
IC	Impervious Cover
PPCP	Pharmaceutical and Personal Care Products
WMP	Watershed Management Plan
NOI	Notice of Intent
GIS	Geographical Information System
MCGP	Maine Construction General Permit
DPW	Department of Public Works
PCSWMP	Post-Construction Stormwater Management Plan
O&M	Operation and Maintenance
SWPPP	Stormwater Pollution Prevention Plan

Section 1 Introduction

1.1 Overview of Regulatory Program

The Town of Old Orchard Beach is subject to the General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4s) which was issued by the Maine Department of Environmental Protection (DEP) on October 15, 2020, and revised on November 23, 2021, with an effective date of July 1, 2022. Since the permit is a Clean Water Act permit, it is limited to a duration of five years; and is due to expire on June 30, 2027. If the Maine DEP does not issue another General Permit by June 30, 2027, the permit will be administratively continued, and the Town may need to update this Stormwater Management Plan (SWMP) to show what activities it will complete during the continued time period.

Communities regulated under this program are identified as having “Urbanized Areas” in their municipal boundary. An Urbanized Area is a U.S. Census-defined term, applied to a large area (50,000 people or more) that has a high population density and/or a high percentage of impervious cover (hard scape surfaces like parking lots or buildings). Both of these criteria (high population density and high percentage of impervious cover) cause an area to be at risk for adverse surface water quality impacts from polluted stormwater discharges.

The United States Environmental Protection Agency (USEPA) and Maine DEP began regulating communities for their stormwater discharges using the Urbanized Area criteria in 2003. The Town of Old Orchard Beach became regulated in 2003 based on the 2000 census. Once a community becomes regulated by the MS4 General Permit, only the Urbanized Area portions of the town are regulated. As each U.S. Census is published, if the Urbanized Area changes (based on changes to the population or impervious cover), additional areas can be added to the regulated area only after a new MS4 General Permit is issued. Once an Urbanized Area is regulated by the MS4 General Permit, it cannot be removed from regulation, even if a subsequent census identifies it is no longer classified as an Urbanized Area. The Urbanized Area map in Appendix A illustrates the Urbanized Area regulated by the 2022 MS4 General Permit for the Town of Old Orchard Beach, which is based on the cumulative 2000 and 2010 U.S. Census Urbanized Area data. The 2022 MS4 General Permit specifically does not include any areas identified by the 2020 U.S. Census.

1.2 Cooperation Between Regulated Communities

The Town of Old Orchard Beach is a member of the Interlocal Stormwater Working Group (ISWG), which is a coalition of 14 regulated MS4 municipalities in the greater Portland and Saco areas (Biddeford, Cape Elizabeth, Cumberland, Falmouth, Freeport, Gorham, Old Orchard Beach, Portland, Saco, Scarborough, South Portland, Westbrook, Windham, and Yarmouth) as well as the Southern Maine Community College and University of Southern Maine which are also regulated as MS4s under a separate permit. This coalition is facilitated by the Cumberland County Soil and Water Conservation District (CCSWCD), which also assists in completing some of the permit requirements under contract to the ISWG. Some of the public education requirements are implemented statewide as identified in this SWMP with ISWG working cooperatively with the Bangor Area Stormwater Working Group (BASWG), Androscoggin Valley Stormwater Working Group (AVSWG), and Southern Maine Stormwater Working Group (SMSWG).

In implementing the 2022 MS4 General Permit, the Town of Old Orchard Beach relies on the ISWG to complete some requirements, hires consultants to implement some requirements, and implements other requirements using municipal staff. This plan describes which elements will be completed individually, regionally, or as a statewide effort.

1.3 Overview of the Stormwater Management Plan

This SWMP describes how the Town will implement best management practices (BMPs) to meet the six minimum control measures (MCMs), set forth in Part IV.C of the 2022 MS4 General Permit. The six MCMs addressed in this SWMP are:

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

Although the MS4 General Permit is a Clean Water Act Permit, it does not specify numeric effluent limitations (concentrations that a stormwater discharge must meet). Instead, the MS4 General Permit specifies narrative effluent limitations, in the form of MCMs.

The 2022 MS4 General Permit requires that for each MCM, the Town must: define appropriate BMPs, designate a person(s) responsible for implementing each BMP, define a date or timeline with milestones for implementation of each BMP, and define measurable goals for each BMP. The prior MS4 General Permits also required that the SWMP address these six MCMs, but the specific requirements related to each MCM have changed with each permit. In many instances, the BMPs in this plan expand upon or continue BMPs that were developed under prior General Permits. In addition to addressing the six MCMs, the Town must address impaired waters requirements.

The Maine DEP will review this SWMP and determine if the Town is controlling pollutants to the “Maximum Extent Practicable.” The term “Maximum Extent Practicable” is defined in the Clean Water Act. The term means available and feasible considering cost, existing technology, and logistics based on the overall purpose of the project. Effectively, the Town is allowed to consider these concepts as they select BMPs to meet permit requirements, but the Maine DEP decides if the Town is meeting the “Maximum Extent Practicable” standard.

The SWMP is not an enforceable document; however, some of its elements are enforceable as identified in the Town’s permittee-specific DEP Order contained in Appendix B. Some flexibility is built in to the SWMP to allow communities to engage in an adaptive management approach to mitigating or eliminating the discharge of pollutants to and from its regulated small MS4. This approach enables the Town to adjust the SWMP and BMPs throughout the permit cycle, if needed, based on evaluations of their effectiveness, changing conditions, specific local concerns, or changes in other factors. Some SWMP Modifications require Maine DEP review and approval and public comment. Sections 1.6 and 1.8 describe the requirements associated with modifying the SWMP.

1.4 Water Quality and Discharges to Impaired Waters

The 2022 MS4 General Permit contains the following requirements for discharges to waters that are not meeting their fishable and swimmable standards (a.k.a. impaired waters):

1. If the waterbody to which a point source discharge drains is impaired and has an EPA approved total maximum daily load (TMDL), then the SWMP must propose clear, specific, and measurable actions to comply with the TMDL waste load allocation (“WLA”) and any implementation plan. The General Permit does not authorize a

direct discharge that is inconsistent with the WLA of an approved TMDL. This requirement applies only to TMDLs that were approved by EPA as of October 15, 2020.

2. If a TMDL is approved or modified by EPA after October 15, 2020, the Maine DEP will notify the permittee if any changes are needed to the SWMP and may take other actions regarding the approved TMDL as identified in the 2022 MS4 General Permit.
3. If an MS4 has a discharge to an Urban Impaired Stream, it must develop and implement three BMPs to address the water’s impairment, unless the Maine DEP has determined the MS4 discharge is not causing or contributing to the impairment.

The Town of Old Orchard Beach MS4 has discharges to a waterbody with EPA-approved TMDLs; the waterbody is also an Urban Impaired Stream. The Town of Old Orchard Beach and Wright-Pierce consulted with staff from Maine DEP Division of Environmental Assessment via email on February 26, 2021 and via a virtual meeting on March 8, 2021 to discuss compliance with the TMDLs and BMPs specific to the Urban Impaired Stream within the community borders. The Urban Impaired Stream BMPs included in Section 2.7 of this SWMP are a result of this consultation. A general discussion of how the State assesses surface water quality is included in Section 1.4.1. The status of waters that receive discharges from the Town’s MS4 is discussed in Section 1.4.2, and how the SWMP complies with the impaired water requirements is discussed in Section 1.4.3.

The Fact Sheet issued with the 2022 MS4 General Permit contained a strongly worded recommendation for MS4s to consult with the Maine DEP Division of Environmental Assessment regarding impaired waters that do not have approved TMDLs. The consultation would be focused on identifying the root cause of the impairment and developing a strategy to reduce the discharge of pollutants of concern if the permittee is causing or contributing to the impairment. A regional consultation was conducted, which is described under Section 1.4.3.2.

1.4.1 State Water Quality Assessments

The State of Maine is required by the Clean Water Act to identify water quality classifications for each surface water in the State, and then to assess whether each of those waters is meeting its designated classification standards. Maine has four classifications for freshwater rivers, three classes for marine and estuarine waters, and one class for lakes and ponds. Each classification identifies a use and set of water quality standards. The classifications, uses, and standards are described and assigned to the various waters in the Maine Statutes (Title 38, Sections 464 through 469).

Assessments as to whether each surface water is achieving its designated classification are based on data obtained from a number of sources depending on the type of surface water being assessed:

- Lake and ponds are assessed primarily through data obtained by the Maine DEP, regional entities, and lake associations. The regional and lake association data is coordinated through the Lake Stewards of Maine (Volunteer Lake Monitoring Program).
- Marine and Estuarine waters are assessed by evaluation of data obtained from the Maine DEP, Maine Healthy Beaches, Department of Marine Resources (DMR), Marine Environment’s Gulf Watch, Gulf of Maine Council, and several other academic and non-profit organizations.
- Wetlands are assessed primarily using data obtained from the Maine DEP Biomonitoring Program.
- Rivers and Streams are assessed using data from the Maine DEP Biomonitoring Program, Surface Water Ambient Toxics (SWAT) Monitoring Program, the Atlantic Salmon Recovery Plan, Volunteer River Monitoring

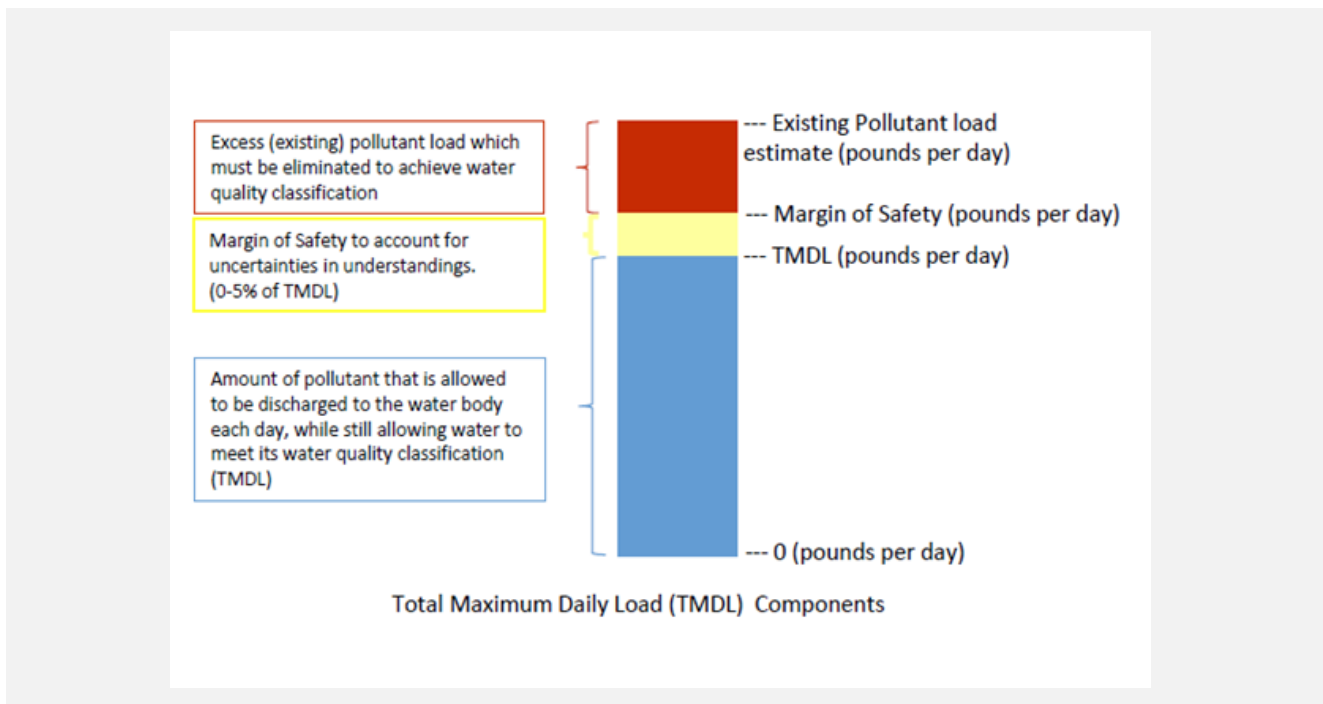
Program (VRMP) and through many other government agencies such as the Department of Inland Fisheries and Wildlife, USEPA, and United States Geological Survey.

Every two years, the Maine DEP publishes a report and list documenting the results of the assessments and identifying which waters are meeting their designated classifications and which are considered impaired. The report and list are called the Integrated Water Quality Report and are generally referred to by the Section of the Clean Water Act which requires them: the 305(b) report and the 303(d) list, respectively. There are five general status categories available for assignment to each water:

- Category 1: Attaining all designated uses and water quality standards, and no use is threatened.
- Category 2: Attains some of the designated uses; no use is threatened; and insufficient data or no data and information is available to determine if the remaining uses are attained or threatened (with presumption that all uses are attained).
- Category 3: Insufficient data and information to determine if designated uses are attained (with presumption that one or more uses may be impaired).
- Category 4: Impaired or threatened for one or more designated uses but does not require development of a TMDL (Total Maximum Daily Load) report.
 - 4A means a TMDL has already been completed
 - 4B means other pollution control measures will address impairment
 - 4C means the impairment is not caused by a pollutant
- Category 5: Waters impaired or threatened for one or more designated uses by a pollutant(s), and a TMDL report is required

The most current 303(d) list for Maine is the is combined 2018/2020/2022 303(d list), which was approved by USEPA on May 25, 2022.

A TMDL document identifies the source(s) of the impairments and recommendations to correct the impairments. In particular, a TMDL document identifies how much of a pollutant a waterbody can receive and still meet its water quality classification. Typically, the units are identified as pounds per day, which is the basis for the term “Total Maximum Daily Load.” TMDLs typically include a margin of safety between two and five percent of the TMDL to account for uncertainties or lack of knowledge about the relationship between the pollutant loading and water quality. TMDL components are illustrated below.



In addition to the Maine 305(b) report and 303(d) list, Maine has developed a special rule, Chapter 502, which has restrictions related to Direct Watersheds of Lakes Most at Risk from New Development and Urban Impaired Streams. This rule became effective in 1997 and has been modified several times over the years. The rule defines an Urban Impaired Stream as a stream that fails to meet its water quality standards because of effects of stormwater runoff from developed land. The rule imposes additional stormwater treatment controls on development in the watersheds of Lakes Most at Risk from Development and Urban Impaired Streams.

1.4.2 Old Orchard Beach Water Quality Status

As part of the development of this SWMP, waterbodies within the Town's Urbanized Area that receive point source discharges from the Town's MS4 were reviewed. The impairment status and applicable TMDLs for each waterbody were also reviewed to determine which impaired water requirements under the 2022 MS4 General Permit were applicable. Several documents were reviewed in making these determinations, including the:

- Final 2016 Maine Integrated Water Quality Report and Appendices [305(b) report and 303(d) list]
- Final 2018/2020/2022 Integrated Water Quality Monitoring and Assessment Appendices [303(d)]
- Chapter 502 Direct Watersheds of Lakes Most at Risk from New Development and Urban Impaired Streams
- Goosefare Brook TMDL (September 2003)
- Maine Impervious Cover TMDL Assessment for Impaired Waters (September 2012)
- Maine Statewide Bacteria TMDL: 2013 Freshwater Addendum (August 2014)
- Goosefare Brook Watershed-based Management Plan (May 2016)

Table 1-1 shows the waters where the Town has regulated small MS4 discharges and their impairment status. Goosefare Brook is an impaired waterbody located within Old Orchard Beach.

Table 1-1 Waterbodies in Old Orchard Beach with Discharges from the Regulated Small MS4

Waterbody Name	Impairment Status	Comments
Goosefare Brook	Category 4-A ¹	Aquatic life use (impervious cover), recreational use (bacteria), and metals approved TMDLs
	Category 4-B ²	Wastewater outfall moved out of estuary. TMDL on freshwater brook.
Saco Bay	None	Previously listed under Category 5-B-1(a) ³ in 2016; delisted and moved to Category 3 ⁴ .
Little River / Jones Creek	None	
Mill Brook	None	
Milliken Pond	None	
Milliken Mill Pond	None	

¹ Rivers and Streams with Impaired Use Other than Mercury – TMDL Completed

² Estuarine and Marine Waters Impaired for Non-Shellfish Harvesting Designated Uses by Pollutants – Pollution Control Requirements Reasonably Expected to Result in Attainment

³ Estuarine and Marine Waters Impaired for Bacteria only – TMDL Required

⁴ Estuarine and Marine Waters with Insufficient Data of Information to Determine if Shellfish Harvesting Designated Use is Attained

Goosefare Brook has TMDLs for heavy metals, bacteria, and impervious cover, and is also listed as an Urban Impaired Stream. A segment of the marine/estuarine portion of Goosefare Brook is listed on the 2018/2020/2022 303(d) list under Category 2 Estuarine/Marine Waters Attaining Some Non-Shellfish Harvesting Designated Uses – Insufficient Information for Other Uses. Maine DEP’s delineation of Goosefare Brook as an Urban Impaired Stream under Chapter 502 only includes the freshwater portion. Since Appendix B Urban Impaired Streams of the 2022 MS4 General Permit does not distinguish between the freshwater or marine/estuarine portions of the stream and the Goosefare Brook Watershed-based Management Plan includes both the freshwater and marine/estuarine portions of the watershed within its delineation, for purposes of this SWMP, including the Urban Impaired Stream BMPs, the delineation of the Goosefare Brook watershed includes both the freshwater and marine/estuarine portions of the watershed as shown on Figure 2 in Appendix A.

It should be noted that Saco Bay was previously listed in the 2009 Statewide Bacteria TMDL; however, it was recategorized in 2016 as Category 5-B-1(a), which needs a TMDL, until such time as the Maine DEP reissues the Statewide Bacteria TMDL. In the 2018/2020/2022 Integrated Water Quality Report, Maine DEP developed a new assessment and listing methodology for bacteria impairments and implemented a new system for presenting impairments of estuarine and marine waters, which consisted of creating two separate groups of assessment units: one for shellfish harvest designated use and one for all other designated uses. The marine/estuarine waters in Old Orchard Beach previously listed under Category 5-B-1(a) (Estuarine and Marine Waters Impaired for Bacterial Only – TMDL Required) were delisted and moved to Category 3 (Estuarine and Marine Waters with Insufficient Data or Information to Determine if Shellfish Harvesting Designation Use is Attained) or Category 2 (Estuarine and Marine Waters Attaining Some Non-Shellfish Harvesting Designated Uses – Insufficient Information for Other Uses). There are no waters in Old Orchard beach currently listed under Category 5-B-1. Saco Bay is included in the Maine shellfish growing area designated as WG. The portion of the growing area located adjacent to the coast of Old Orchard Beach is included in growing area section P2, which extends nearly the full coastline of Old Orchard Beach

and up the mouth of Goosefare Brook. Shellfish harvesting is prohibited in P2 due to wastewater treatment plant discharges from Saco, Biddeford, Old Orchard Beach, and Scarborough.

1.4.3 Progress on Addressing Impairments and Approach to BMP Development

The Town of Old Orchard Beach and Wright-Pierce consulted with staff from Maine DEP Division of Environmental Assessment via email on February 26, 2021 and a virtual meeting on March 8, 2021. Consultation regarding SWMP compliance with the TMDLs was provided in an email from the Division of Environmental Assessment on February 26, 2021, and is discussed in Section 1.4.3.1. The Maine DEP consultation via a virtual meeting on March 8, 2021, which included staff from the Division of Environmental Assessment and Maine Healthy Beaches, focused on the selection of Urban Impaired Stream BMPs. During this consultation, Maine DEP recommended focusing the Urban Impaired Stream BMPs to be included in the SWMP on bacteria impairments, which would make the most difference in the watershed. Additionally, since there are impacts related to buffers, a program that improves the riparian buffer would be applicable. Maine DEP indicated that chloride impairments within the Goosefare Brook watershed are not applicable to the Town of Old Orchard Beach, and a regional BMP for chloride reduction would not be appropriate for the SWMP. The Urban Impaired Stream BMPs, identified in Section 2.7 of this SWMP, were selected as a result of the consultation with Maine DEP. The Urban Impaired Stream BMPs are based on data and known issues in the Goosefare Brook watershed from monitoring of the New Salt Road Tributary conducted by Maine Healthy Beaches and recommendations stemming from that monitoring. The Urban Impaired Stream BMPs are not a direct result of IDDE inspections to date.

The IDDE BMPs identified in Section 2.3 of this SWMP, are intended to be separate from the Urban Impaired Stream BMPs and will focus on town-wide initiatives related to outfall inspections as well as sampling/analysis and further investigation, if warranted. The focus of the IDDE BMPs will be on the stormwater infrastructure. While there may be some overlap between the Urbanized Impaired Stream and IDDE BMPs, in that some of the data collected may support next steps with the investigations, the intent is to generally allow the actions and measurable goals to be separate.

1.4.3.1 Discharges to Waters with TMDLs and Urban Impaired Stream

Goosefare Brook is a stream located in both Saco and Old Orchard Beach. It originates in Saco Heath and discharges to Saco Bay between Old Orchard Beach and Ferry Beach State Park. There are both residential, commercial, industrial, and highway properties along the length of Goosefare Brook. Goosefare Brook does not meet its Class B statutory classification, and has a toxicity impairment from heavy metals, an aquatic life use impairment based on non-attainment for macroinvertebrates, and a recreational use impairment due to *Escherichia coli* (*E. coli*).

The following TMDLs have been established for Goosefare Brook:

- Goosefare Brook TMDL (September 2003) for heavy metals (Cadmium, Chromium, Copper, Iron, Nickel, Lead, and Zinc). The TMDL was associated with two known legacy discharges, and not a result of MS4 discharges; therefore, no further action is required for this TMDL in this SWMP. This was confirmed as a result of consultation with staff from Maine DEP Division of Environmental Assessment on February 26, 2021.
- Maine Impervious Cover (IC) TMDL Assessment for Impaired Waters (September 2012) addresses the impairments to aquatic life use (benthic-macroinvertebrate and stream habitat assessments). The IC TMDL indicates these impairments are associated with a variety of pollutants in urban stormwater as well as erosion, habitat loss, and unstable stream banks caused by excessive amounts of runoff. The percent impervious cover in the watershed is 17 percent with a TMDL target of 9 percent. Goosefare Brook is also on the list of Urban

Impaired Streams. As such, the three BMPs for the Urban Impaired Stream will be sufficient to demonstrate compliance with the IC TMDL. This was confirmed as a result of consultation with staff from Maine DEP Division of Environmental Assessment on February 26, 2021.

- Maine Statewide Bacteria TMDL: 2013 Freshwater Addendum (August 2014) addresses impairments due to E. coli bacteria. The Addendum to the Bacteria TMDL suggests that bacterial sources in the watershed are likely from failing residential septic systems, leaky sewer pipes, illicit connections to storm drains, or domestic animals. For the purposes of calculating a single reduction for Goosefare Brook, the most downstream mainstem site was used to compute a percent reduction, which was the crossing at Old Orchard Road (SGS01), which is located in the freshwater portion of the watershed. The TMDL goal is a 73 percent reduction in bacteria loads. One of the specific recommendations in the Bacteria TMDL is the establishment of an IDDE Program, as such, the implementation of the Town's IDDE program will be sufficient for meeting the requirements for the Bacterial TMDL. This was confirmed as a result of consultation with staff from Maine DEP Division of Environmental Assessment on February 26, 2021.

Maine Healthy Beaches Monitoring

The Maine Healthy Beaches program has been conducting enhanced monitoring and pollution source tracking in the New Salt Road Tributary of Goosefare Brook, since 2012. This portion of the Goosefare Brook watershed is located in the marine/estuarine portion of the watershed. According to the Maine Healthy Beaches' 2012-2019 Summary Report of Enhanced Monitoring and Pollution Tracking in New Salt Road Tributary, using multiple pollution source tracking tools, the multi-year pollution tracking efforts identified two primary "hot spots" suspected of human fecal contamination in the New Salt Road Tributary. The summary report indicates enterococci, optical brightener, canine detection, and pharmaceutical and personal care products (PPCPs) data was used to isolate the mouth region (GFB-01 and associated sites) and the marsh region (Marsh-1 and associated sites) as the two distinct "hot spots" with the potential for human and other fecal sources(s) of pollution. Microbial source tracking analyses was used to verify suspected "hotspots," locate potential pollution sources, and assess seasonal differences in sources. The Maine Healthy Beaches 2012-2019 summary report suggests the impaired water quality (due to fecal bacteria) in the New Salt Road Tributary is likely a combination of human, wild, and domestic animal waste, and human sources may include faulty sewer lines, cross-connections between sewer and stormwater infrastructure, and malfunctioning septic systems/cesspools. The 2012-2019 summary report includes a recommendation to target human sources, and for Town to continue investigations of suspect areas to rule out sources of human sewage. Specifically, the summary report recommends follow-up on parcels identified during 2015 smoke testing indicating potential sewer connection issues and to investigate wastewater infrastructure integrity near GFB-01-0 where the New Salt Road Tributary goes underground (in a closed box culvert parallel to West Grand Ave, Route 9) between Randall Ave (GFB-01-0) and Ancona Ave (GFB-01-1).

Significant efforts have been made by the Town in partnership with Maine Healthy Beaches to monitor and identify sources of enterococci in Goosefare Brook estuary and beaches over many years. Prior to the development of the Goosefare Brook Watershed-based Management Plan (WMP), efforts to detect and address potential bacteria sources included dye testing of homes, replacement of aging sanitary sewer infrastructure, and smoke testing to tract potential sources of contamination into the Goosefare Brook. As a result of the 2015 smoke testing effort, a list of properties with potential sewer connection issues was developed. Since the development of the Goosefare Brook WMP, the Town of Old Orchard Beach has been progressing the implementation of the WMP and working to protect and restore water quality in the watershed.

Watershed-based Management Plan (WMP)

A WMP plan was developed for the Goosefare Brook watershed in May of 2016. The WMP is a comprehensive plan that provides the City of Saco and Town of Old Orchard Beach with recommendations for protecting and restoring the Goosefare Brook and its tributaries. The WMP identified the five stressors of nutrients, toxics, chloride, bacteria, and stream habitat as contributors to existing and potential future impairments in Goosefare Brook. The primary stressors identified for subwatersheds in Old Orchard Beach are related to nutrients, bacteria, and stream habitat (along a short stretch of stream). Excess nutrients (primarily nitrogen and phosphorus) originate from sources within the watershed such as fertilizer application, soil erosion, and biological waste. As previously noted, elevated levels of bacteria within portions of the watershed are likely tied to human sources. Key protection and restoration categories identified in the Goosefare Brook WMP include bacteria source reduction (continue to seek out and remove bacteria sources in the watershed), stream restoration (improve habitat conditions in and adjacent to the stream by restoring riparian buffers, stabilizing eroding stream banks and removing fish barriers), and Education/Outreach (garner the support and cooperation from community groups while educating business owners, school children, and watershed residents about the need for and importance of clean water), which will be addressed by the proposed Urban Impaired Stream BMPs.

The Town participates in the Goosefare Brook Restoration Committee, which serves as a steering committee for the implementation of the WMP. Additionally, the Town has partnered with the City of Saco to apply for and be awarded multiple grants provided by the U.S. EPA under Section 319 of the Clean Water Act. Under these grants, the Town has installed stormwater retrofits to treat stormwater runoff and erosion issues and provided public education (storm drain stenciling) within the watershed. Currently, the Town is working on ordinance amendments to Chapter 71 Post-Construction Stormwater Management to have the ordinance also apply to projects that create 20,000 square feet or more impervious area in the marine/estuarine portion of the Goosefare Brook watershed. Additionally, the Town is planning BMP installations at the Department of Public Works facility and Loranger Middle School as well as buffer restorations. The City of Saco and Town of Old Orchard Beach were recently awarded a third implementation grant to continue watershed restoration.

1.4.3.2 Discharges to Impaired Waters without a TMDL

The Fact Sheet to the 2022 MS4 General Permit recommends the Town consult with Maine DEP to assess actions to be taken to address discharges to impaired waters that do not have an EPA-approved TMDL. In Old Orchard Beach's case, these waters previously included the estuarine/marine waters of Saco Bay located in the DMR Growing Area WG, Growing Section P2. DMR Growing Area WG was originally listed in the 2009 Statewide Bacteria TMDL; however, in 2016, the Maine DEP moved the estuarine/marine waters to the 303(d) list Category 5-B-1(a) (TMDL required). In 2018/2020/2020, the estuarine/marine waters of Saco Bay adjacent to the shore of Old Orchard Beach were delisted and moved to Category 3 Estuarine and Marine Waters with Insufficient Data or Information to Determine if Shellfish Harvesting Designation Use is Attained.

Although there currently are no waters on the 303(d) in Old Orchard Beach that are impaired without a TMDL and the 2022 MS4 General Permit requirements do not apply to 303(d) non-TMDL waters, prior to the approval of the 2018/2020/2022 303(d) list, the Maine DEP was regionally consulted, and they concurred that for bacteria impaired waters that were vacated from the 2009 Statewide Bacteria TMDL (marine/estuarine), implementation of the MS4 IDDE elements of the 2022 MS4 General Permit (i.e. outfall inspections, sampling outfalls during dry weather flow, and completing IDDE investigations to eliminate bacterial sources) is sufficient to address the impairment until such time as the Statewide Bacteria TMDL can be updated.

1.5 Priority Watersheds

The 2022 MS4 General Permit does not contain any specific requirements related to priority watersheds; however, it does require the Town to have a procedure in place to prioritize watersheds when addressing illicit discharges. In general, the Town focuses illicit discharge detection and elimination (IDDE) efforts in the priority watershed. The Town's IDDE Plan, included in Appendix E, describes in more detail how the prioritization is applied. The Town's priority watershed is the Goosefare Brook for several reasons, including:

- it is an urban impaired stream,
- it is impaired for bacteria,
- it encompasses more than a third of the area of the Town (based on the Town's delineation), and
- other studies have been conducted in the watershed.

Additionally, the Maine DEP maintains a list of waters that are vulnerable to non-point source pollution, which is then available to receive grant funding under Sections 308(b) and 319 of the Clean Water Act, as long as the funding is not used to satisfy the conditions of a Clean Water Act Permit (such as the 2022 MS4 General Permit). The list includes Goosefare Brook. It should be noted that 319 grant funding cannot be used to implement BMPs required by the MS4 General Permit.

1.6 Obtaining Coverage to Discharge

A Notice of Intent (NOI) to comply with the 2022 MS4 General Permit was submitted to the Maine DEP with the initial SWMP in March 2021. A copy of the Town's NOI is provided in Appendix B. A 30-day Public Notice was provided by both the Maine DEP and the Town to allow the public to comment on the SWMP. A copy of the Public Notice provided by the Town is included in Appendix C.

Following review of the SWMP and NOI, and receipt of any public comments, the Maine DEP issued a permittee-specific DEP Order, establishing terms and conditions that are enforceable in addition to the language in the 2022 MS4 General Permit which is also enforceable. The DEP Order is also referred to as a Second Step Permit. The permittee-specific DEP Order was also subject to a 30-day public comment period, which the Maine DEP provided. Following the end of the public comment permit, the Maine DEP offered updated information to the Town, as applicable. The Maine DEP provided notice to the Town that they were authorized to discharge under the 2022 MS4 General Permit and the permittee-specific DEP Order on May 24, 2022.

Once the Maine DEP issued the authorization to discharge and permittee-specific DEP Order, the Town had 60 days to update the SWMP to reflect any new or changed requirements and any comments, and the SWMP was to be resubmitted to the Maine DEP. This modified SWMP (dated July 2022) was updated and submitted in accordance with that requirement. The final permittee-specific DEP Order is included in Appendix B of the SWMP, and comments received are attached to the DEP Order. The new permit conditions became effective July 1, 2022.

1.7 SWMP Availability

The SWMP will be made available on the Town website and a copy of the SWMP will also be available for viewing at Town Hall, which will immediately be made available to the following entities upon request:

- USEPA or Maine DEP,
- an interconnected or adjacent MS4,

- any owner or operator of a water supply company where the MS4 discharges to a water supply watershed,
or
- member of the public.

1.8 SWMP Modifications During the Permit Cycle

During the permit cycle, the SWMP will be kept current. As required by the 2022 MS4 General Permit, the Town will amend the SWMP if the Maine DEP or the Town determine:

- The actions required by the BMPs fail to control pollutants to the terms and conditions of the MS4 General Permit and the permittee-specific DEP Order.
- The BMPs do not prevent the potential for a significant contribution of pollutants to waters of the State other than groundwater.
- New information results in a shift in the SWMP's priorities.

If the changes are initiated by the Maine DEP, it will notify the Town, and the Town must respond in writing within 30 days of the notice explaining how it will modify the SWMP. The Town must then modify the SWMP within 90 calendar days of the Town's written response, or within 120 calendar days of the DEP notice (whichever is less). Any such modification must be submitted to the Maine DEP for final review.

If the changes are initiated by the Town, the following processes apply (depending on the nature of the change as identified below):

- To modify any schedule identified in the permittee-specific DEP Order, the permittee must file an application on a DEP form with the DEP that includes a justification to formally modify the original permittee-specific DEP Order. Changes to BMPs in the permittee-specific DEP Order require formal public notice in the local paper within the 30 calendar-day period prior to submitting the amendment to Maine DEP.
- The permittee must allow the public the opportunity to comment on changes made to the SWMP a minimum of once per year.
- For BMPs in the SWMP that are not required to comply with the General Permit or the permittee-specific DEP Order, the BMPs and/or implementation schedule may be amended as appropriate without the need for public comment. The Maine DEP will be notified of changes not requiring public notice/comment in the annual report following the permit year the changes were made..

There may be other instances where changes require formal public notice; these instances will be determined in coordination with the Maine DEP as they arise. Changes requiring formal public notice will be made available for 30-day public comment by posting the changes and associated updated SWMP on the Town's website. Changes to items in the SWMP that are not specifically required by the 2022 MS4 General Permit or permittee-specific DEP Order may be amended as appropriate without the need for public notice/comment; however, the Town will allow the public the opportunity to comment on changes made to the SWMP by annually posting the SWMP on the Town's website.

1.9 Annual Compliance Report and Record Keeping

By September 15 of each year, the Town will electronically submit an Annual Compliance Report for the Maine DEP's review using a standardized form provided by the Maine DEP. The Annual Compliance Report will be sent to:

Maine Department of Environmental Protection, MEPDES Stormwater Coordinator
Holliday Keen or current contact; Holliday.Keen@maine.gov

The Annual Compliance Report will include the following:

- a. The status of compliance with the terms and conditions of the 2022 MS4 General Permit and the Town’s permittee-specific DEP Order, based on the implementation of the Town’s Plan for each permit year, an assessment of the effectiveness of the components of its stormwater management program, an assessment of the appropriateness of identified BMPs, progress towards achieving identified measurable goals for each of the MCMs and progress toward achieving the goal of reducing the discharge of pollutants to the maximum extent practicable.
- b. A summary of information collected and analyzed, including monitoring data, if any, during the reporting period.
- c. A summary of the stormwater activities the Town intends to undertake pursuant to its SWMP to comply with the terms and conditions of the 2022 MS4 General Permit and the Town’s permittee-specific DEP Order during the next reporting cycle.
- d. A change in any identified BMPs or measurable goals that apply to the SWMP.
- e. A description of the activities, progress, and accomplishments for each of the MCMs (1 through 6), including such items as the status of education and outreach efforts, public involvement activities, stormwater mapping efforts, the number of visual dry weather inspections performed, the number of inaccessible and new outfalls, dry weather flow sampling events and laboratory results, detected illicit discharges, detected illicit connections, illicit discharges that were eliminated, construction site inspections, number and nature of enforcement actions, post construction BMP status and inspections, the number of functioning post construction BMPs, the number of post construction sites requiring maintenance or remedial action, the status of the permittee’s good housekeeping/pollution prevention program including the percentage of catch basins cleaned, those catch basins cleaned multiple times and the number of catch basins that could not be evaluated for structural condition in a safe manner. Where applicable, the MS4 must quantify steps/measures/activities taken to comply with the 2022 MS4 General Permit and its Plan including reporting on the types of trainings presented, the number of municipal and contract staff that received training, the length of the training and training content delivered as well as any revisions to the SWPPP procedures and/or changes in municipal operations.

The Maine DEP will review the annual reports and provide comments to the MS4s. Changes to the report based on the Maine DEP's review comment(s) must be submitted to the Maine DEP within 60 days of the receipt of the comment(s). The regulated MS4s must keep records required by the 2022 MS4 General Permit and permittee-specific DEP Order for at least three years following its expiration or longer if requested by the Maine DEP or the USEPA. The Town must make records, including this SWMP, available to the public during regular business hours.

Section 2 Minimum Control Measures

2.1 MCM 1 Education/Outreach Program

The 2022 MS4 General Permit requires municipalities to develop and implement two Education/Outreach Campaigns to address stormwater issues of significance:

1. An Outreach to Raise Awareness Campaign targeted at two audiences applying three tools per audience per year. One target audience must be the public and the second audience may be selected from: municipal, commercial, development/construction, or institutions.
2. An Outreach to Change Behavior Campaign to promote one behavior change directed at two audiences using a minimum of three outreach tools per year. This campaign will promote and reinforce desirable behaviors designed to reduce stormwater pollution.

In 2018, the ISWG executed a statewide survey to assess public awareness of a variety of stormwater issues and related behaviors. The survey results report ¹ was included in the ISWG Permit Year 5 (2017-2018) annual reports. In addition, the ISWG communities reviewed regional water quality related to stormwater issues, examined the unique conditions within each of their communities, and evaluated the needs for public education around stormwater at five of their regional meetings (9/13/2018, 3/21/2019, 7/18/2019, 3/26/2020, 5/21/2020). Based on the survey results and the discussions at their regional meetings, the ISWG communities agreed on which issues of significance to address and what tools and messages might be effective. Each of the BMPs provides a brief introductory section describing the rationale for the selection of the BMP based on the regional and local issues within the ISWG region. The BMPs are further structured to allow for adaptive education and outreach approaches to create a strong, diverse, and effective campaign over the duration of this permit.

The Town will fulfill the requirements for Public Education/Outreach through participation in the ISWG and the Town's provision of funding to the CCSWCD for Public Education/Outreach services, as described in the following BMPs. The BMPs will be implemented according to their individual timelines over the term of the permit.

2.1.1 BMP 1.1 Outreach to Raise Awareness Campaign

Responsible Party: DPW Administrative Operations Manager and/or Associate Planner (with implementation assistance from CCSWCD)

The 2022 MS4 General Permit requires the permittee to raise awareness of the public as well as one of the following groups: municipal, commercial, development/construction, or institutions. This BMP describes the reasoning and measurable goals for the public audience and the selected second audience: development/construction.

Background for Measurable Goal 1.1a Public Audience: The Think Blue Maine campaign began in 2003 as a statewide effort to raise awareness of common stormwater pollutants and ways to prevent those pollutants. The Think Blue Maine campaign has been historically successful in increasing awareness of stormwater issues. The ISWG, AVSWG, and SMSWG coordinate their Think Blue Maine messaging and education efforts to provide

¹ http://thinkbluemaine.cumberlandswcd.com/wp-content/uploads/2018/07/Survey_Summary-FINAL.pdf

consistent messaging in Southern Maine. In addition, the Massachusetts and New Hampshire small MS4s are using similar Think Blue campaigns, so there is some regionally consistent messaging in circulation.

In 2018, the ISWG executed a statewide survey around public awareness of stormwater issues and behaviors that impact stormwater. Ninety-four percent of survey respondents in the ISWG region ages 25 to 34 stated it was “very important to have clean water in the lakes and streams in [their] community”, and 86 percent of ISWG respondents ages 25 to 34 believe that stormwater runoff has a major impact or somewhat impacts water quality, but only 46 percent of ISWG respondents ages 25 to 34 were able to correctly describe what happens to stormwater at their residence. Because this age group has not been targeted before for education and has the potential to impact stormwater for many years into the future, the ISWG, AVSWG, and SMSWG communities will cooperatively use the Think Blue Maine campaign to raise awareness of the target audience to be more aware of stormwater issues and be more willing to change their behavior in the future.

Measurable Goal 1.1a – The Town, through its participation in the ISWG, will implement the following program which is designed to raise 15 percent² of the target audience’s awareness of what happens to stormwater at their residence or place of work. According to the 2019 U.S. Census Bureau, the ISWG region’s population for ages 25 to 34 is approximately 38,000 people: therefore, 15 percent of the target audience is approximately 6,000 people.

Target Audience: People 25 to 34 in the ISWG region

Overarching Message: “Water that lands on our roads, roofs, and other hard surfaces picks up pollutants and carries them to our local waterbodies without being treated.” This message will be presented with variations based on target audience interests and outreach tools used.

Outreach Tools: A minimum of three outreach tools will be selected from Appendix D Table 1. Tools for Measurable Goal 1.1a each year. Each tool will be assessed and customized based on the target audience’s receptiveness to the method. Any tool used in a given year will be tailored to the message for the relevant target audience subset based on common characteristics and/or demographics.

Evaluation: Effectiveness will be evaluated annually by tracking process indicators³ for each tool implemented that year and by tracking impact indicators⁴ where available (see Appendix D Table 1. Tools for Measurable Goal 1.1a).

Implementation schedule: A minimum of three of the tools from Appendix D Table 1 Tools for Measurable Goal 1.1a will be implemented each year for the duration of the permit.

Adaptive Management: As part of the ISWG adaptive management education and outreach program, tools and messaging will be reviewed and evaluated on an annual basis at a minimum as part of annual reporting. To address emerging issues, opportunistic tools and outreach may also be implemented. Seasonal messaging and tool

² As recommended in the EPA’s “Getting in Step: A guide for conducting watershed outreach campaigns” (2003), when 15 to 20 percent of an audience adopts a new idea or behavior, it will be able to permeate to the rest of the audience.

³ Indicators related to the execution of the outreach program.

⁴ Indicators related to the achievement of the goals or objectives of the program.

adjustments will be used when applicable. Report findings will be incorporated into ISWG meeting discussions as well as annual workplans and budgets.

Background for Measurable Goal 1.1b Development/Construction Audience: Evaluation of municipal stormwater programs, through annual meetings with municipal staff and officials, has revealed a large amount of effort required to comply with MCM 4 tasks. The ISWG communities identified opportunities to address common MCM 4 goals through coordinated regional and statewide stormwater education to contractors to reduce development and construction-related stormwater pollutants that are not already required by MCM 4. Due to the cyclical nature of the development/construction sector, a baseline evaluation will be conducted before or during Permit Year 1 to establish current Maine Department of Environmental Protection (DEP) Erosion and Sediment Control Certified Contractors. If contractors are certified by DEP in erosion and sediment control, their awareness of best practices is established.

Measurable Goal 1.1b – The Municipality, through its participation in the ISWG, will implement the following program which is designed to raise awareness of construction-related stormwater pollution by increasing the net number of DEP Certified contractors located in the ISWG region by 15% from the Permit Year 1 established baseline audience.

Target Audience: Contractors located within the ISWG region.

Overarching Message: “Through erosion and sediment control best management practices training and certification, contractors can reduce the potential to negatively impact local water bodies.” This message will be presented with variations based on target audience interests and outreach tools used.

Outreach Tools: A minimum of three outreach tools will be selected from *Appendix D Table 2. Tools for Measurable Goal 1.1b* each year. Each tool will be assessed and customized based on the target audience’s receptiveness to the method. Any tool used in a given year will be tailored to the message for the relevant target audience subset based on common characteristics and/or demographics.

Evaluation: Effectiveness will be evaluated annually by tracking process indicators for each tool implemented that year and by tracking impact indicators where available (*see Appendix D Table 2. Tools for Measurable Goal 1.1b*). Effectiveness will also be measured by the number of DEP certified contractors located in the ISWG region over the course of the permit term.

Implementation schedule: A minimum of three of the tools from *Appendix D Table 2. Tools for Measurable Goal 1.1b* will be implemented each year for the duration of the permit.

Adaptive Management: As part of the ISWG adaptive management education and outreach program, tools and messaging will be reviewed and evaluated on an annual basis at a minimum as part of annual reporting. To address emerging issues, opportunistic tools and outreach may also be implemented. Seasonal messaging and tool adjustments will be used when applicable. Report findings will be incorporated into ISWG meeting discussions as well as annual workplans and budgets.

2.1.2 BMP 1.2 Outreach to Change Behavior Campaign

Responsible Party: DPW Administrative Operations Manager and/or Associate Planner (with implementation assistance from CCSWCD)

Background for BMP 1.2: The ISWG communities have focused on changing behavior to reduce nutrients into regional waterbodies in their MS4 permit for the past three permit cycles. The ISWG communities will continue their efforts to reduce sources of nutrients by promoting proper dog waste disposal to two target audiences this permit term for the following reasons:

1. Generally, excess nutrients in our waters are a nationally recognized water quality issue related to stormwater – there are multiple common sources of nutrients including sediments, pet waste, septic systems, and fertilizers.
2. The Statewide survey conducted in Permit Year 5 of the previous cycle identified that survey respondents are aware that nutrient sources (including dog waste) are a common stormwater pollutant and respondents expressed a willingness to take action to help reduce stormwater pollution. Eighty-four percent of 2018 survey respondents in the ISWG region ages 25 to 34 and 67 percent of 2018 survey respondents in the ISWG region ages 35 to 55 selected “picking up pet waste and putting it in the trash” as a practice they believed could reduce water pollution.
3. Most ISWG communities are part of the Casco Bay watershed. In the June 2019 Casco Bay Nutrient Council report, nutrients were identified as the main pollutant of concern for the health of Casco Bay. While there is discrepancy between nutrient models as to the contribution percentages of the three main sources of nutrients (stormwater, wastewater, and atmospheric deposition), stormwater runoff is believed to contribute between 24 percent and 64 percent of the nitrogen entering Casco Bay.
4. Several ISWG communities have encountered problems with dog waste not being picked up⁵ or not being properly disposed of in the trash, causing local water quality concerns⁶ and unsanitary conditions for the public and municipal staff.
5. Most ISWG communities have taken steps to discourage improper dog waste disposal through ordinances. However, there are currently still barriers to effectively educating and enforcing these types of ordinances.
6. Dog owners ages 25 to 64 are the least likely age group to pick up after their dog⁷. However, dog owners ages 25 to 64 receive their information through different outreach methods⁸. In order to provide effective messaging on proper dog waste management, two audiences will be created to allow appropriate outreach tools to be used per age group.

A baseline evaluation will be conducted in Permit Year 1 to establish dog owner behavior of dog waste disposal and the baseline target audience within the ISWG region.

Measurable Goal 1.2a – The Town, through its participation in the ISWG, will work towards changing the behavior of 15 percent of pet owners from the Permit Year 1 established baseline field survey findings.

⁵ <https://www.pressherald.com/2019/03/21/south-portland-raises-a-red-flag-over-dog-waste-problem-at-hinckley-park/>

⁶ <https://www.pressherald.com/2019/08/30/south-portland-park-tests-positive-for-algae-that-can-harm-dogs/>

⁷ Hall, S.L. (2006 June) Survey on Poop: Half don’t scoop; neighborhoods seeking solutions. *The News & Observer*, pp. B1.

⁸ <https://umaine.edu/undiscoveredmaine/small-business/resources/marketing-for-small-business/social-media-tools/social-media-statistics-details/>

Target audience: Dog owners ages 25 to 34 within the ISWG region.

Overarching Message: “Dispose of dog waste as a solid waste, so it does not end up in our stormwater. Once in the stormwater, dog waste contributes nutrients, bacteria, and pathogens to our ponds, lakes, streams, rivers, and bays, which can lower property values, harm our drinking water, and hinder recreational and economic opportunities.” This message will be presented with variations based on target audience interests and outreach tools used.

Outreach Tools: A minimum of three outreach tools will be selected from Appendix D Table 3. Tools for Measurable Goal 1.2a each year. Each tool will be assessed and customized based on the target audience’s receptiveness to the method. Any tool used in a given year will be tailored to the message of the relevant target audience subset based on common characteristics and/or demographics.

Evaluation: Effectiveness will be evaluated annually by tracking process indicators for each tool implemented that year and by tracking impact indicators where available (*see Appendix D Table 3. Tools for Measurable Goal 1.2a*). Effectiveness will also be evaluated by conducting observational field surveys of improper dog waste disposal at public areas. These annual field surveys will be on established routes and will include geotagging of observed dog waste. Site factors such as signage, community litter cleanups, and other variables will also be documented. In addition, the presence of dog waste bags in catch basins will be recorded during annual inspections. In Permit Year 1 the field survey work will be supplemented by also observing the age groups utilizing the spaces and their pet waste disposal behavior in a subsample of the sites. This supplemental observation will be repeated in Permit Year 5.

Implementation schedule: A minimum of three of the tools from *Appendix D Table 3. Tools for Measurable Goal 1.2a* will be implemented each year for the duration of the permit.

Adaptive Management: As part of the ISWG adaptive management education and outreach program, tools and messaging will be reviewed and evaluated on an annual basis at a minimum as part of annual reporting. To address emerging issues, opportunistic tools and outreach may also be implemented. Seasonal messaging and tool adjustments will be used when applicable. Report findings will be incorporated into ISWG meeting discussions as well as annual workplans and budgets.

Measurable Goal 1.2b – The Town, through its participation in the ISWG, will work towards changing the behavior of 15 percent of pet owners from the Permit Year 1 established baseline field survey results.

Target audience: Dog owners ages 35 to 55 within the ISWG region

Overarching Message: “Dispose of dog waste as a solid waste, so it does not end up in our stormwater. Once in the stormwater, dog waste contributes nutrients, bacteria, and pathogens to our ponds, lakes, streams, rivers, and bays, which can lower property values, harm our drinking water, and hinder recreational and economic opportunities.” This message will be presented with variations based on target audience interests and outreach tools used.

Outreach Tools: A minimum of three outreach tools will be selected from *Appendix D Table 4. Tools for Measurable Goal 1.2b* each year. Each tool will be assessed and customized based on the target audience’s receptiveness to the

method. Any tool used in a given year will be tailored to the message for the relevant target audience subset based on common characteristics and/or demographics.

Evaluation: Effectiveness will be evaluated annually by tracking process indicators for each tool implemented that year and by tracking impact indicators where available (*see Appendix D Table 4. Tools for Measurable Goal 1.2b*). Effectiveness will also be evaluated by conducting observational field surveys of improper dog waste disposal at public areas. These annual field surveys will be on established routes and will include geotagging of observed dog waste. Site factors such as signage, community litter cleanups, and other variables will also be documented. In addition, the presence of dog waste bags in catch basins will be recorded during annual inspections. In Permit Year 1 the field survey work will be supplemented by also observing the age groups utilizing the spaces and their pet waste disposal behavior in a subsample of the sites. This supplemental observation will be repeated in Permit Year 5.

Implementation schedule: A minimum of three of the tools from *Appendix D Table 4. Tools for Measurable Goal 1.2b* will be implemented each year for the duration of the permit.

Adaptive Management: As part of the ISWG adaptive management education and outreach program, tools and messaging will be reviewed and evaluated on an annual basis at a minimum as part of annual reporting. To address emerging issues, opportunistic tools and outreach may also be implemented. Seasonal messaging and tool adjustments will be used when applicable. Report findings will be incorporated into ISWG meeting discussions as well as annual workplans and budgets.

2.1.3 BMP 1.3 Effectiveness Evaluation

Responsible Party: DPW Administrative Operations Manager and/or Associate Planner (with implementation assistance from CCSWCD)

Measurable Goal 1.3a – The Town, through its participation in ISWG, will submit an annual report each year of the 2022 MS4 General Permit term documenting the implementation of each BMP. The annual report will include the message for each audience, the methods of distribution, the outreach tools used, the measures/methods used to determine on-going effectiveness of the campaigns, and any changes planned based on the measures of effectiveness.

Measurable Goal 1.3b – In Permit Year 5 of the 2022 MS4 General Permit the Town, through its participation in ISWG, will conduct an evaluation of the overall effectiveness of the Awareness and Behavior Change BMPs (BMPs 1.1 and 1.2). The evaluation will be a review of the annually reported benchmark values for the Awareness and Behavior Change BMPs as well as documentation of overall changes during the permit term by comparing back to the established baselines.

- For Measurable Goal 1.1a, a survey will be conducted in Permit Year 5 to assess the target audience’s awareness of stormwater issues and what happens to stormwater at their residence or place of work and will be compared to the survey issued in 2018.
- For Measurable Goal 1.1b, the number of DEP Certified contractors located in the ISWG region in Permit Year 5 will be compared to the Permit Year 1 established baseline audience to determine the net number of new certified contractors aware of erosion and sediment control practices.

- For Measurable Goals 1.2a and 1.2b, the amount and presence of pet waste found in the ISWG region in Permit Year 5 field surveys will be compared to the established baseline field surveys conducted in Permit Year 1.

The evaluation will identify recommendations for future awareness and behavior change target audiences, messages, tools, and benchmarks.

2.1.4 BMP 1.4 Optional Activities

Responsible Party: DPW Administrative Operations Manager and/or Associate Planner (with implementation assistance from CCSWCD)

This BMP describes activities that are not required by the 2022 MS4 General Permit but may be conducted by the Town to supplement the Education/Outreach program.

Measurable Goal 1.4a – The Town, through its participation in the ISWG, will continue to support the CCSWCD’s youth education curriculum to community schools as funding allows. Annual reports will include the total number of students reached, which schools were involved, and the lesson topics covered.

Measurable Goal 1.4b – The Town, through its participation in the ISWG, may support the regional effort to reduce chloride contributions to receiving waterbodies by having at least one representative from the Town attend an annual regional training or roundtable to learn about new chloride reduction techniques coordinated by the ISWG or another organization. The Town may also support the regional effort to reduce chloride by providing educational outreach regarding limited liability to legislators and by providing winter maintenance education and outreach to the driving public. Winter maintenance education and outreach would be delivered in the form of winter maintenance practices, aimed at maintaining public safety while protecting the environment, using two tools per year from *Appendix D Table 5. Tools for Measurable Goal 1.4b. (Regional Winter Maintenance BMP)*.

2.2 MCM 2 Public Involvement and Participation

The Town will fulfill the requirements for Public Involvement and Participation through participation in the ISWG and the Town’s provisions of funding to CCSWCD for Public Involvement and Participation services, or through directly fulfilling the requirements, as described in this section of the plan.

2.2.1 BMP 2.1 Public Notice Requirement

Responsible Party: DPW Administrative Operations Manager and/or Associate Planner (with implementation assistance from CCSWCD)

Measurable Goal 2.1a – The Town will follow applicable state and local public notice requirements for its NOI and SWMP to comply with the MS4 General Permit. Copies of the SWMP, which includes the NOI, will be made available on the Town’s website. The Town will document public meetings related to their stormwater program and attendance of those meetings in their annual report.

Measurable Goal 2.1b – The ISWG members meet as a group six times per year to review issues associated with implementation of the SWMP and MS4 General Permit. These meetings will be publicized through the CCSWCD website and on ISWG member websites and are open to the public.

2.2.2 BMP 2.2 Public Event

Responsible Party: DPW Administrative Operations Manager and/or Associate Planner (with implementation assistance from CCSWCD)

Measurable Goal 2.2a – The Town will annually host, conduct, and/or participate in a public community event with a pollution prevention and/or water quality theme from the list included in the 2022 MS4 General Permit or another activity approved by the Maine DEP. Stormwater stewardship, educational messages, and activities will be incorporated into the event. The event will be advertised on the Town’s website, through the Town’s and CCSWCD’s social media accounts, and other Municipal and CCSWCD communication methods. The annual report will include a description of the event and the estimated attendance/participation.

2.3 MCM 3 Illicit Discharge Detection and Elimination

The Town will continue to implement and enforce its Illicit Discharge Detection and Elimination (IDDE) program. The program includes procedures for: prioritizing watersheds, identifying potential illicit discharges, investigating, and tracing the source of illicit discharges, removing the source of the discharge, and program evaluation and assessment, and is described in the Town’s written IDDE Plan. The following BMPs will be implemented to meet this MCM.

2.3.1 BMP 3.1 Continue to Implement the Illicit Discharge Ordinance

Responsible Party: Director of Public Works with support from Code Enforcement

Measurable Goal 3.1a – The Town adopted an Illicit Discharge Ordinance on December 5, 2006. The Ordinance is included as Article V. – Illicit Discharge Ordinance of Chapter 58 – Utilities of the Town’s Code of Ordinances. The Director of Public Works is the authorized enforcement authority per the Ordinance; however, enforcement is accomplished with the assistance of the Code Enforcement Officer. This ordinance provides the enforcement authority the ability to take enforcement action, including issuing notices of violation and penalties. The Town will continue to enforce this ordinance each permit year. This Ordinance can be viewed online at: https://library.municode.com/me/old_orchard_beach/codes/code_of_ordinances?nodetid=PTIICOOR_CH58UT_ARTVILDIOR

Measurable Goal 3.1b – The Town will document enforcement action taken related to illicit discharges using an Excel spreadsheet.

2.3.2 BMP 3.2 Maintain a Written IDDE Plan

Responsible Party: Director of Public Works

Measurable Goal 3.2a – The Town updated its IDDE Plan to contain elements required in the 2022 MS4 General Permit (Part IV.C.3.b.i through vi). The updated IDDE Plan is included in Appendix E of this SWMP. The plan will be reviewed periodically and updated as needed to reflect any changes to the program.

Measurable Goal 3.2b – The Town will conduct a desktop wet weather analysis to assess the potential for illicit discharges during wet weather events, in accordance with the 2022 MS4 General Permit Part IV.C.3.f. The Town will incorporate the wet weather assessment into their IDDE Plan by the end of Permit Year 5.

2.3.3 BMP 3.3 Maintain Storm Sewer System Infrastructure Map

Responsible Party: Director of Public Works

Measurable Goal 3.3a – The Town developed a map of the MS4 infrastructure during the previous permit cycles. The map shows the locations of stormwater catch basins, drain manholes, connecting surface and subsurface infrastructure showing the direction of pipe flow and the locations of stormwater outfalls. The infrastructure is documented in a Geographic Information System (GIS), which contains unique identifiers for outfalls and catch basins, as well as outfall material, size and receiving water. Updates to the Town’s stormwater geodatabase are continually made and viewable within the Town’s ArcGIS Online Organization as they are made. The version of the stormwater geodatabase that is publicly viewable is updated annually. Updates primarily include changes to infrastructure based on inspections and addition of infrastructure when as-built drawings become available. The Town will continue to maintain an MS4 infrastructure map.

2.3.4 BMP 3.4 Conduct Infrastructure Inspections and Monitor Flowing Outfalls

Responsible Party: Director of Public Works

Measurable Goal 3.4a – The Town will conduct infrastructure inspections for pollutants using the following frequency:

- One dry weather inspection will be conducted on each outfall at least once per permit cycle.
- Catch basins will be inspected for evidence of pollutants during catch basin cleaning (see BMP 6.4 for details).

Measurable Goal 3.4b – If an outfall is observed to be flowing during a dry weather inspection, the flow will be sampled and analyzed once per permit cycle using the methods described in the IDDE Plan unless it is exempt from dry weather investigations (as described in Part IV.C.3.e.vi of the 2022 MS4 General Permit). Outfalls sampled during dry weather will be handled as follows:

1. Outfalls where sampling and analysis reveals the potential for an illicit discharge: The Town will investigate the catchment area associated with the outfall for potential illicit discharges as described under Measurable Goal 3.5a.
2. Outfalls where sampling and analysis does not reveal the potential for an illicit discharge: The Town will document the dry weather flow as either uncontaminated groundwater, water from a natural resource, or an allowable non-stormwater discharge.

The Department of Public Works will summarize the monitoring results and any investigation completed, or the exempt status, as applicable, in an Excel spreadsheet or GIS geodatabase. The Town’s IDDE Plan (contained in Appendix E) describes the information collected during infrastructure inspections. The Town documents the inspections electronically in GIS.

2.3.5 BMP 3.5 Conduct Investigations on Suspect Illicit Discharges

Responsible Party: Director of Public Works

Measurable Goal 3.5a – Whenever the Department of Public Works becomes aware of a potential illicit discharge, it will investigate to identify the source using methods described in the written IDDE Plan (Appendix E). The Department of Public Works will track the status and outcome of the investigations using an Excel spreadsheet.

2.3.6 BMP 3.6 Allowable Non-Stormwater Discharges Identified as Significant Contributors of Pollutants

Responsible Party: Director of Public Works

Measurable Goal 3.6a – In the previous permit cycle, the Maine DEP identified hydrant flushing as a potential contributor of pollutants to MS4s. The Maine DEP published an issue profile providing water districts and departments guidance on how to meet ambient water quality standards for chlorine during hydrant flushing. The document was specifically designed for discharges to MS4s. In addition, the Maine Rural Water Association and Maine Water Utilities Association prepared a guidance document and training to show water districts and departments how to meet the requirements of the issue profile.

The Town previously has received annual reports from the Maine Water Company describing their hydrant flushing best management practices and results. The Town will continue to request Maine Water Company provide annual reports each permit year.

Measurable Goal 3.6b – If any of the allowable non-stormwater discharges listed in the 2022 MS4 General Permit (Part IV.C.3.h) are identified as significant contributors of pollutants to the MS4, the SWMP will be amended to address how the Town will work with the responsible dischargers to control these sources, so they are no longer significant contributors of pollutants.

2.4 MCM 4 Construction Site Stormwater Runoff Control

The Town will review, update as necessary, implement, and enforce its Construction Runoff Control Program for construction activities that result in land disturbance greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale as required by the 2022 MS4 General Permit. This program will be implemented through BMPs as described in this section.

The Town’s existing Zoning Ordinance includes Erosion and Sediment Control as a Performance Standard (Chapter 78, Article VIII, Division 8), which currently applies to all uses with the exception of construction or expansion of single-family detached houses and their accessory uses or structures. All activities which involve filling, grading, excavation, or other similar activities, which result in unstabilized soil conditions, and which require a shoreland zoning permit or site plan, subdivision, or condition use approval are required to submit a written erosion and sediment control plan.

The Town’s Planning Board Site Plan Review is addressed in Chapter 78, Article IV, and generally applies to design and construction of nonresidential and multifamily residential uses as well as earth-moving activities. The Town has additional procedures and standards for subdivisions (Chapter 74).

The Town’s existing Subdivisions and Zoning Ordinances can be viewed online at:

- Chapter 74 Subdivisions:
https://library.municode.com/me/old_orchard_beach/codes/code_of_ordinances?nodeId=PTIICOOR_CH74SU
- Chapter 78 Zoning:
https://library.municode.com/me/old_orchard_beach/codes/code_of_ordinances?nodeId=PTIICOOR_CH78ZO

The following BMPs will be implemented to meet this MCM.

2.4.1 BMP 4.1 Erosion and Sediment Control Ordinance

Responsible Party: Town Planner or Associate Planner

Measurable Goal 4.1a – The Town will review its existing Erosion and Sediment Control Performance Standard to determine the best approach to require erosion and sediment control BMPs at construction sites be consistent with the applicable sections of Attachment C to the 2022 MS4 General Permit (which are the same as the Maine DEP Stormwater Rule Chapter 500 Appendices A Erosion and Sediment Control, B Inspections and Maintenance, and C Housekeeping). It will be determined whether the existing Erosion and Sediment Control Performance Standards be updated or whether a new article or section under the Zoning Ordinance be developed. All applicable references to required erosion and sediment control plans in the Subdivisions and Zoning Ordinances will be updated accordingly. The applicable ordinances updates will be completed by July 1, 2023.

Measurable Goal 4.1b – Prior to the updates to the Zoning Ordinance identified in Measurable Goal 4.1a, the Town will determine whether it will reference Maine DEP Stormwater Rule Chapter 500, Appendices A, B, and C or whether it will develop, either on its own or regionally, a set of standards consistent with the construction site requirements contained in Attachment C to the 2022 MS4 General Permit, (which currently are the same as the Maine DEP Stormwater Rule Chapter 500 Appendices A, B, and C).

2.4.2 BMP 4.2 Subdivision and Site Plan Review Procedures

Responsible Party: Town Planner or Associate Planner

Measurable Goal 4.2a – The Town’s existing Subdivision Ordinance and Zoning Ordinance include procedures and standards related to the review of subdivisions and site plans, which are consistent with the required elements listed in the 2022 MS4 General Permit (consideration of potential water quality impacts, erosion control, waste storage, the ability for the public to comment at publicly noticed meetings and procedures to consider information submitted by the public). The Town will continue to implement these subdivision and site plan review procedures.

2.4.3 BMP 4.3 Procedures for Notifying Construction Site Developers and Operators

Responsible Party: Town Planner or Associate Planner

Measurable Goal 4.3a – The Town will continue to notify developers and operators of requirements to obtain coverage under the Maine Construction General Permit (MCGP) and Chapter 500 Stormwater Management for sites that disturb one or more acres of land using the following methods:

- Verbally in discussions with the applicant and at pre-application meetings.
- Through language on the Conditional Use, Site Plan – Plenary Review, Private Way, Subdivision – Minor, Subdivision – Major, and Building Permit applications.

2.4.4 BMP 4.4 Procedures to Control Waste at Construction Sites

Responsible Party: Town Planner or Associate Planner

Measurable Goal 4.4a – The Town will develop procedures for construction site operations to control waste such as discarded building materials, concrete truck washouts, chemicals, litter and sanitary waste at the construction site that may cause adverse impacts to water quality if passed through the storm drain system.

2.4.5 BMP 4.5 Conduct and Document Construction Site Inspections

Responsible Party: Associate Planner with support from Code Enforcement

Measurable Goal 4.5a – The Town will continue implementing its procedure for construction site inspections which is included as Construction Phase (MCM 4), Step 4: Construction Inspections and Documentation in the Planning Department’s Development Review Process Guide for Stormwater Management. The procedures for construction site inspections were updated to incorporate the 2022 MS4 General Permit requirements in June 2022. The written procedures were reviewed and updated, as necessary, to:

- identify who is responsible for site inspections,
- identify who has authority to implement enforcement procedures,
- describe communication and enforcement procedures regarding deficiencies identified during inspections,
- require three inspections during active earth-moving phase of construction,
- require a minimum of one inspection annually until the project reaches substantial completion,
- require a final inspection at project completion to ensure that permanent stabilization has been achieved and all temporary erosion and sediment controls have been removed, and
- include use of the construction inspection forms provided in Appendix F of this SWMP.

Measurable Goal 4.5b – The Town will document construction sites as part of the Construction Runoff Control Program using an Excel spreadsheet. The spreadsheet contains information to support annual reporting, including the project name, location, status, inspection dates, and any corrective and enforcement action taken.

2.5 MCM 5 Post-Construction Stormwater Management in New Development/Redevelopment

Previously, the Town promoted strategies to prevent or minimize water quality impacts by encouraging site developers to consider Low Impact Development and green infrastructure techniques, which was accomplished during the development review process. Under the 2022 General Permit, the Town will further this effort by incorporating Low Impact Development performance standards into their Land Use Regulations.

The Town will continue to implement its Post-Construction Stormwater Management Program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, or projects that result in 20,000 square feet or more of impervious area in the watershed of an urban impaired stream as listed in Maine DEP’s Chapter 502, Appendix B Urban Impaired Streams and that discharge into the Town’s MS4 through implementation of the following BMPs.

The Town’s current Ordinances contain provisions to prevent or minimize water quality impacts from development by requiring adequate long-term operation and maintenance of post-construction BMPs. The Post-Construction

Stormwater Management Ordinance was adopted on January 15, 2013, as Chapter 71 in the Town's Code of Ordinances. The Post-Construction Stormwater Ordinance can be viewed online at:

https://library.municode.com/me/old_orchard_beach/codes/code_of_ordinances?nodeId=PTIICOOR_CH71PONSS_TMA

Chapter 71 Post-Construction Stormwater Management requires:

- Submittal, approval, and implementation of a Post Construction Stormwater Management Plan for all new development and redevelopment within the regulated area (2000 + 2010 Urbanized Area) of the municipality identified on the EPA map titled "NPDES Phase II Stormwater Program Automatically Designated MS4 Area" for Old Orchard Beach, ME and to associated post-construction BMPs.
- Preparation of a Post-Construction Stormwater Management Plan (PCSWMP) in accordance with the Town of Old Orchard Beach standards.
- Execution and filing of a maintenance agreement for any infrastructure that will not be dedicated to the municipality.
- Submittal of an annual report certifying that the post-construction BMPs have been inspected by a qualified post-construction inspector and are either adequately maintained and functioning as intended or if they require maintenance or repair, a list of deficiencies and documentation once they have been corrected.

The following BMPs will be implemented to meet this MCM.

2.5.1 BMP 5.1 Implement Strategies to Prevent or Minimize Water Quality Impacts

Responsible Party: Town Planner and Associate Planner

Measurable Goal 5.1a – The Town will, either on its own or through its partnership with ISWG, develop a model LID Ordinance for stormwater management on new and redevelopment sites which establishes performance standards for each of the LID measures listed in Table 1 of Appendix F of the 2022 MS4 General Permit Modification. The model LID Ordinance will be submitted to the Maine DEP for review by September 1, 2022. The 2022 MS4 General Permit Modification identified the Maine DEP will post the model LID Ordinance for public comment and will approve it, with or without modifications, by November 1, 2022.

Measurable Goal 5.1b – Assuming the model LID Ordinance and its required elements are approved by November 1, 2022, the Town will either adopt an ordinance at least as stringent as the model LID Ordinance or incorporate its required elements into the Town's Land Use Regulations by July 1, 2024.

2.5.2 BMP 5.2 Maintain Post Construction Ordinance

Responsible Party: Associate Planner with support from Code Enforcement

Measurable Goal 5.2a – The Town's Post-Construction Stormwater Management Ordinance requires the owner or operator of a post-construction BMP to hire a qualified post-construction inspector and to provide the Town with an annual certification by June 30 of each year. The Town will continue to require annual certifications and will track the required information for annual reporting in an Excel spreadsheet.

Measurable Goal 5.2b – By July 1, 2023, the Town’s Post-Construction Stormwater Management Ordinance (Chapter 71) will be updated to include provisions requiring the following for sites reporting that maintenance is required:

- Deficiencies will be corrected within 60 days of identification and a record of the corrective action taken will be provided to the Town’s Enforcement Authority within the same 60-day period.
- If it is not possible to correct the deficiency and notify the Town within 60 days, the property owner will coordinate with the Enforcement Authority to establish an expeditious schedule to correct the deficiency and will provide a record of the corrective actions taken.

2.6 MCM 6 Pollution Prevention/Good Housekeeping for Municipal Operations

The objective of this MCM is to mitigate or eliminate pollutant runoff from municipal operations on property that is owned or managed by the permittee and located within the 2000 and 2010 Urbanized Area through implementation of the following BMPs.

2.6.1 BMP 6.1 Operations at Municipally Owned Grounds and Facilities

Responsible Party: Director of Public Works

Measurable Goal 6.1a – During previous permit cycles, the Town developed and updated an inventory of municipal operations conducted in, on, or associated with facilities, buildings, golf courses, cemeteries, parks and open space owned or operated by the Town that have the potential to cause or contribute to stormwater pollution. The Town will review and update, as necessary, its inventory annually.

Measurable Goal 6.1b – During previous permit cycles, the Town developed and implemented Operation and Maintenance (O&M) Procedures for the municipal operations listed in their inventory that had the potential to cause or contribute to stormwater pollution. The Town will continue to implement these O&M Procedures and will review and update, as necessary, the O&M Procedures annually to iteratively improve strategies and practices to eliminate or better control pollutant discharges.

2.6.2 BMP 6.2 Municipal Employee Training

Responsible Party: Director of Public Works

Measurable Goal 6.2a – The Town will conduct annual municipal employee training to reduce stormwater pollution from municipal operations and facilities. Training will include the appropriate municipal employees and will cover the O&M Procedures and Stormwater Pollution Prevention Plan, accordingly.

2.6.3 BMP 6.3 Continue Street Sweeping Program

Responsible Party: Director of Public Works

Measurable Goal 6.3a – Each permit year, the Town will continue to sweep all publicly-accepted paved streets and publicly-owned paved parking lots at least once a year, as soon as possible after snowmelt.

2.6.4 BMP 6.4 Cleaning of Catch Basins

Responsible Party: Director of Public Works

Measurable Goal 6.4a – The Town will inspect all catch basins for sediment content at least once every other year and, if necessary, clean catch basins and other stormwater structures that accumulate sediment. Removed sediment will be stored and disposed of according to state law. Catch basins will be cleaned more frequently if inspections indicate excessive accumulation of sediment. Excessive accumulation is considered greater than or equal to 50 percent of the sump filled.

Measurable Goal 6.4b – The Town will track catch basins with excess sediment. If two consecutive inspections show excess sediment, the catch basin will be cleaned every year instead of every other year, until it has been documented to exhibit less than 25 percent sediment in its sump for two consecutive years at which point it will be removed from the excess sediment list and will be inspected again every other year.

2.6.5 BMP 6.5 Maintain and Upgrade of Stormwater Conveyances, Structures, and Outfalls

Responsible Party: Director of Public Works

Measurable Goal 6.5a – The Town will continue to maintain and upgrade the conveyances, structures, and outfalls of the regulated small MS4 as needed and as part of the Town’s capital improvement planning process, which includes systematic capital upgrades to the storm drain system in correlation with other infrastructure/roadway projects.

2.6.6 BMP 6.6 Stormwater Pollution Prevention Plan (SWPPP)

Responsible Party: Director of Public Works

Measurable Goal 6.6a – During previous permit cycles, the Town developed and updated a SWPPP for the Department of Public Works Garage and Sand/Salt Facility. The Town reviewed and updated the existing SWPPP in June 2022 to meet the requirements specified in Part IV.C.6.d of the 2022 MS4 General Permit.

Measurable Goal 6.6b – The Town will continue to implement the SWPPP for the Department of Public Works Garage and Sant/Salt Facility each permit year.

2.7 Urban Impaired Stream BMPS

The Town’s regulated MS4 has discharges to Goosefare Brook, which is classified as an Urban Impaired Stream as listed in Appendix B of the 2022 MS4 General Permit. As such, the Town is required to implement three structural or non-structural BMPs for any Urban Impaired Streams that receives discharges from the regulated MS4. To meet the Urban Impaired Stream requirement of the 2022 MS4 General Permit, the Town will implement the following BMPs.

2.7.1 BMP 7.1 Targeted Behavior Change: YardScaping 2.0

Responsible Party: DPW Administrative Operations Manager and/or Associate Planner (with implementation assistance from CCSWCD)

Measurable Goal 7.1a – As identified in Section 1.4.3.1 of the SWMP, key protection and restoration categories for Goosefare Brook watershed include stream restoration and education/outreach, highlighting the need for restoring

riparian buffers and educating watershed residents about the importance of clean water. During Permit Years 1-5, the Town, through participation in the ISWG and the Town's provision of funding to CCSWCD, will provide targeted education to the residents living adjacent to Goosefare Brook and/or select tributaries to Goosefare Brook. The goal of the enhanced public education is to encourage residents to improve their riparian zone by creating or improving and maintaining the riparian buffer with native species to minimize erosion, following proper yard waste practices, and implementing one of the YardScaping concepts. This BMP will incorporate targeted and regional outreach with other ISWG municipalities that have urban impaired streams. Within the ISWG municipalities with urban impaired streams, the following items will occur each year:

- One digital and one print outreach will be distributed to residents within the Urban Impaired Stream area (to be designated) about ways to create, improve, and maintain their riparian zone.
- Offer four regional workshops on YardScaping and buffer BMPs (workshops will alternate between communities with Urban Impaired Streams each year).
- Product and plant recommendations will be identified at regional point of sale partners.

Surveys will be conducted immediately after workshops and then a follow up survey will be conducted after the next growing season to evaluate behavior changes of the target audience.

2.7.2 BMP 7.2 Conduct Investigation of Select Segments of Sanitary Sewer System within New Salt Road Tributary Subwatershed

Responsible Party: Director of Public Works

As noted in Section 1.4.3.1, Maine Healthy Beaches enhanced monitoring and pollution source tracking, including microbial source tracking, in the New Salt Road Tributary indicate human sources of bacteria are contributing to the bacteria impairment. Given aging sanitary sewer infrastructure within the lower part of the New Salt Road Tributary (some of which is comprised of asbestos concrete pipe) smoke testing would help identify problem areas within the sanitary sewer system. This BMP is based on a recommendation from the Maine Healthy Beaches' 2012-2019 Summary Report of Enhanced Monitoring and Pollution Source Tracking in the New Salt Road Tributary to investigate wastewater infrastructure integrity near Randall Ave, where the New Salt Road Tributary goes underground (in a closed box culvert) between Randall Avenue and Ancona Avenue.

Measurable Goal 7.2a – During Permit Year 2, conduct smoke testing of the sanitary sewer system in the New Salt Road Tributary subwatershed to locate potential problem areas within the sanitary sewer system, including sewer connection issues. The smoke testing will be generally focused on sanitary sewer in the area where the New Salt Road Tributary goes underground (in a closed box culvert parallel to West Grand Avenue) between Randall Avenue and Ancona Avenue, and will include portions of West Grand, Randall, Temple, Colby, Seaside, and Ancona Avenues.

Measurable Goal 7.2b – During Permit Year 3, based on the results of the smoke testing described in Measurable Goal 7.2a, the Town will develop a list of recommendations, including problem areas/properties which require further investigation. The Town will conduct further investigation as described under Measurable Goals 7.3c and 7.3d.

2.7.3 BMP 7.3 Investigate Sewer Connection Issues Identified through Smoke Testing Effort in New Salt Road Tributary Subwatershed

Responsible Party: Director of Public Works with support from Code Enforcement

Similar to BMP 7.2, this BMP is based on a recommendation from the Maine Healthy Beaches' 2012-2019 Summary Report of Enhanced Monitoring and Pollution Source Tracking in the New Salt Road Tributary to follow-up on parcels identified during smoke testing of the sanitary sewer in 2015 indicating potential sewer connection issues.

Measurable Goal 7.3a – During Permit Year 1, the Department of Public Works will review the recommendations from the 2015 smoke testing effort and confirm those properties or areas identified as requiring further investigation continue to require follow up. A listing of properties and areas will be identified along with identified concerns.

Measurable Goal 7.3b – During Permit Year 2, Department of Public Works and Code Enforcement will determine their ability to enter private property and their right to access and develop a plan to conduct internal house inspections. The Town will reach out to each affected property owner a minimum of one time to discuss access.

Measurable Goal 7.3c – During Permit Years 3-5 and contingent on securing access to private properties, the Town will conduct internal house inspections of properties with potential sewer connection issues identified through smoke testing efforts. House inspections may include a plumbing inspection, observation of where the sewer exits the house, push camera inspections, and/or dye testing. At a minimum, the private properties recommended for internal house inspections under Measurable Goal 7.3a will be inspected. Additional houses will be inspected, based on the findings from the smoke testing to be conducted under Measurable Goal 7.2a. Up to a total of 15 houses will be inspected under this measurable goal.

Measurable Goal 7.3d – During Permit Years 3-5, the Town will conduct follow-up investigation of areas identified through smoke testing that did not involve internal house inspection. At a minimum, the applicable items identified under Measurable 7.3a will be investigated. Additional investigation, based on the findings from the smoke testing to be conducted under Measurable Goal 7.2a will be conducted. Up to a total of 5 areas will receive follow-up investigation under this measurable goal.

2.7.4 Optional BMP 7.4 Enhanced Pet Waste Behavior Change Campaign

Responsible Party: DPW Administrative Operations Manager and/or Associate Planner

This BMP is an optional BMP and will only be considered if the Town is unable to implement and complete BMP 7.2 or 7.3 as a result of lack of funding or inability to secure access to inspect private properties. As noted in Section 1.4.3.1, both the Statewide Bacteria TMDL Addendum and Maine Healthy Beaches' 2012-2019 Summary Report of Enhanced Monitoring and Pollution Source Tracking in the New Salt Road Tributary of Goosefare Brook suggests that bacteria impairment in Goosefare Brook is a combination of several sources, including domestic animals. By enhancing the public education behavior program related to pet waste, bacteria contributions from pet waste will be reduced.

Measurable Goal 7.4a – If this BMP is initiated, the Town will enhance BMP 1.2 Outreach to Change Behavior Campaign, by improving existing pet waste stations or installing new pet waste stations within the New Salt Road Tributary subwatershed. The number of pet waste stations to be improved and/or installed will be determined based on review of existing pet waste stations and coordination with the Ocean Park Association.

Section 3 General Requirements

3.1 Duly Authorized Representative

Written authorization for "Duly Authorized Representative" for the Director of Public Works for signing the DPW Garage and Sand/Salt Facility SWPPP and any other information related to the implementation of the SWPPP is included in Appendix G.

3.2 Certification

The MS4 General Permit requires that this SWMP be certified by either a principal executive officer or ranking elected official. This section provides the necessary certification.

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

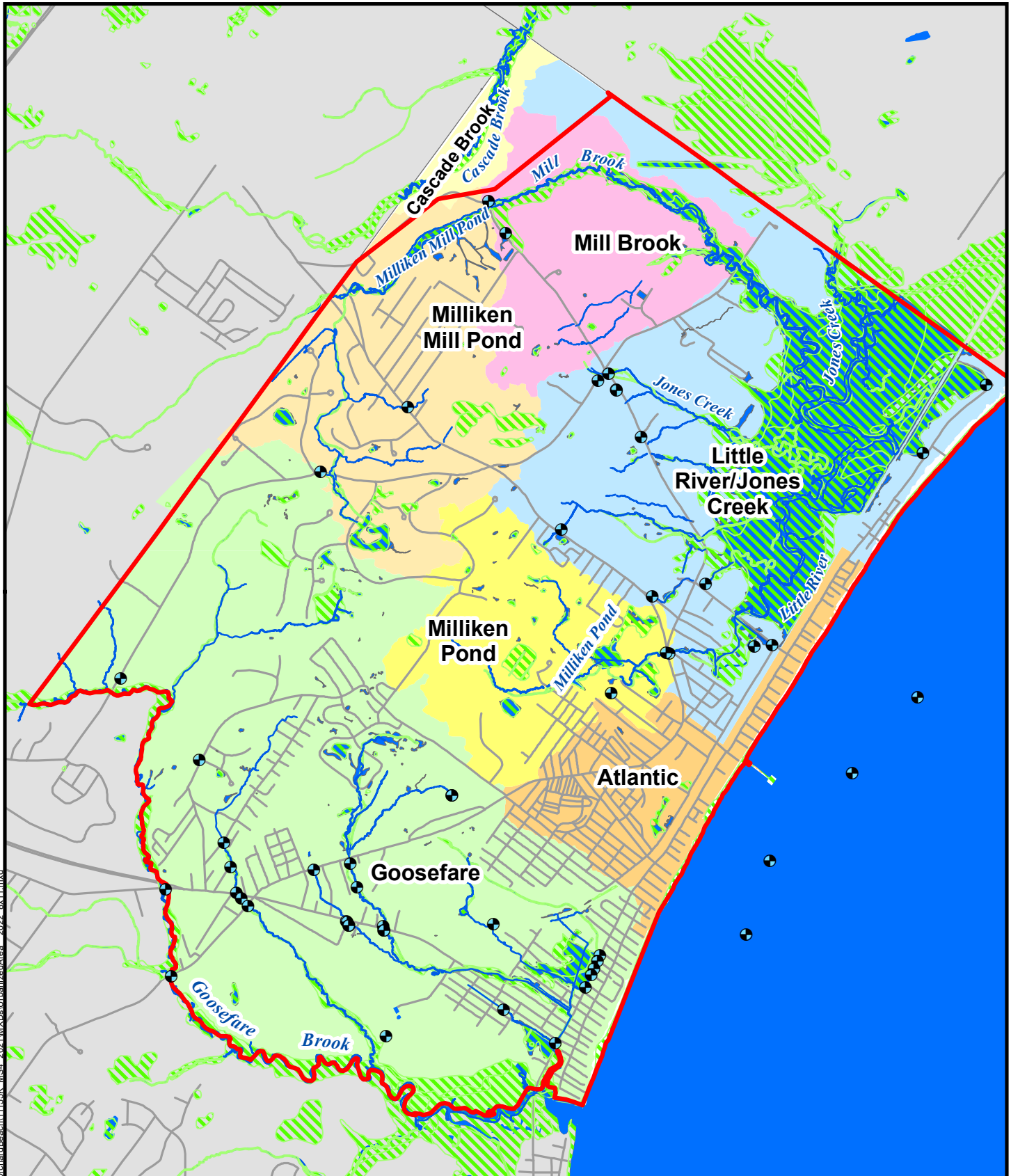
Signature:  _____ Date: 7/20/2022

583E08D99458466...
Diana H. Asanza

Title: Town Manager

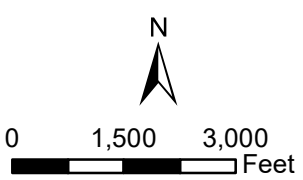
Appendix A
Urbanized Area and Goosefare Brook
Watershed Maps





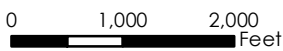
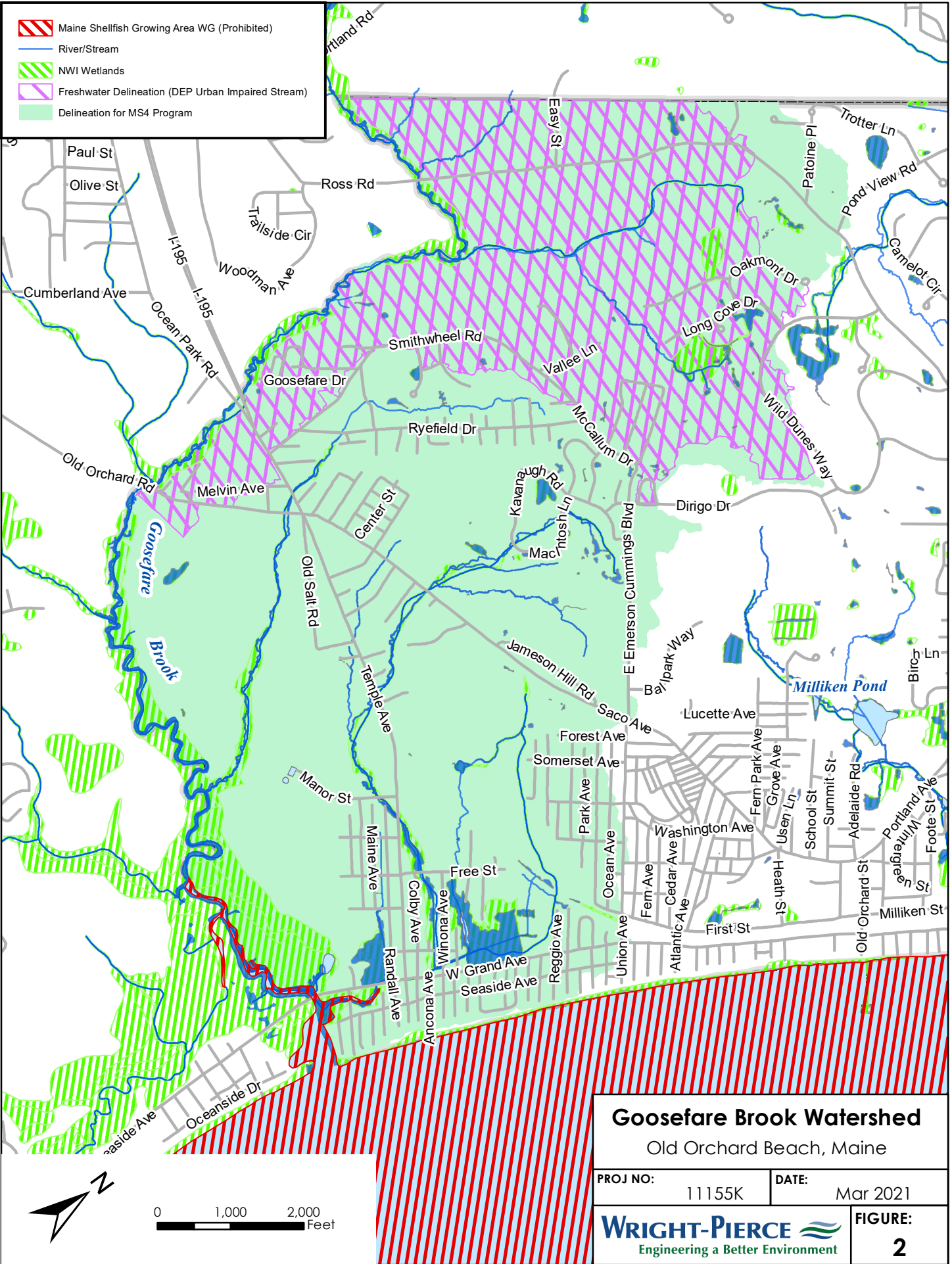
CLM_W:\GIS_Development\Projects\MFO\OldOrchardBeach\11155K_MS4_2021\MXD\UrbanizedArea_2022_8x11.mxd

- Outfall
 - Urbanized Area
 - NWI Wetlands
 - River/Stream
 - Urbanized Area (2000, 2010)
Data from US Census Bureau.
- | Watersheds | |
|------------|--------------------|
| | Atlantic |
| | Cascade Brook |
| | Goosefare Brook * |
| | Little River |
| | Mill Brook |
| | Milliken Mill Pond |
| | Milliken Pond |
- * Indicates Impaired Waterbody



Urbanized Area Map Old Orchard Beach, Maine	
PROJ NO: 11155K	DATE: Mar 2022
WRIGHT-PIERCE Engineering a Better Environment	
FIGURE: 1	

CLM:\w\GIS_Development\Projects\ME\OldOrchardBeach\11155K_MS4_2021\MXDs\Goosefare_Watershed_2021_8x11.mxd



Appendix B
Notice Of Intent (NOI) and Permittee-Specific
DEP Order





NOTICE OF INTENT TO COMPLY WITH MAINE GENERAL PERMIT FOR THE DISCHARGE OF STORMWATER FROM MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4)

PLEASE TYPE OR PRINT IN BLACK INK ONLY

PERMITTEE INFORMATION

MS4 Entity	Town of Old Orchard Beach	Permittee ID #	MER041025
Name and title of chief elected official or principal executive officer	Larry S. Mead, Town Manager		
Mailing Address	1 Portland Ave		
Town/City	Old Orchard Beach	State	ME
		Zip Code	04064
Daytime Phone	(207) 934-5714	Email	lmead@oobmaine.com

PRIMARY CONTACT PERSON FOR OVERALL STORMWATER MANAGEMENT PROGRAM (if different than PEO/CEO)

Name and Title	Joseph Cooper, Director of Public Works		
Mailing Address	1 Portland Ave		
Town/City	Old Orchard Beach	State	ME
		Zip Code	04064
Daytime Phone	(207) 934-2250	Email	jcooper@oobmaine.com

STORMWATER MANAGEMENT PLAN (SWMP)

Urbanized Area (sq. mi.)	7.3
--------------------------	-----

I have attached our updated SWMP with ordinances, SOPs, forms.

Name of streams, wetlands, or waterbodies to which the regulated small MS4 discharges (attach additional sheets as necessary):
Goosefare Brook and tributaries, Saco Bay, Little River / Jones Creek and tributaries, Mill Brook, Milliken Pond, Milliken Mill Pond

List of impaired waterbodies that receive stormwater from the regulated small MS4 (attach additional sheets as necessary):
Goosefare Brook

CERTIFICATION

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

Signature of Permittee		Date	3-29-21
------------------------	--	------	---------

This NOI registration form must be filed with the Department at the following address:

Stormwater Program Manager
Maine Department of Environmental Protection
Bureau of Water Quality
17 State House Station
Augusta ME 04333-0017
Rhonda.Poirier@maine.gov

OFFICE USE ONLY

Date Received	Staff	Date Accepted	Date Not Accepted
---------------	-------	---------------	-------------------



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



JANET T. MILLS
GOVERNOR

MELANIE LOYZIM
COMMISSIONER

May 24, 2022

Ms. Diana Asanza
Town Manager
1 Portland Avenue
Old Orchard Beach, Maine 04064
e-mail: dasanza@oodmaine.com

**RE: Municipal Separate Storm Sewer System (MS4) General Permit #MER041000
Final – MER041025**

Dear Ms. Asanza:

Enclosed please find a copy of your **final** MEPDES permit and Maine WDL which was approved by the Department of Environmental Protection. Please read this permit/license and its attached conditions carefully. Compliance with this permit/license will protect water quality.

Any interested person aggrieved by a Department determination made pursuant to applicable regulations, may appeal the decision following the procedures described in the attached DEP FACT SHEET entitled “*Appealing a Commissioner’s Licensing Decision.*”

If you have any questions regarding the matter, please feel free to call me at 287-7693. Your Department compliance inspector copied below is also a resource that can assist you with compliance. Please do not hesitate to contact them with any questions.

Thank you for your efforts to protect and improve the waters of the great state of Maine!

Sincerely,

Gregg Wood
Division of Water Quality Management
Bureau of Water Quality

Enc.

cc: Alison Moody, DEP/SMRO
Irene Saumur, DEP/CMRO
Richard Carvalho, USEPA

Lori Mitchell, DEP/CMRO
Damien Houlihan, USEPA
Newton Tedder, USEPA

Holliday Keen, DEP/CMRO
Nathan Chien, USEPA

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-3143



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION
AUGUSTA, ME 04333

**DEPARTMENT ORDER
IN THE MATTER OF**

TOWN OF OLD ORCHARD BEACH)	MUNICIPAL SEPARATE STORM
OLD ORCHARD BEACH, YORK COUNTY, ME.)	SEWER SYSTEM
MER041025)	MER041000
)	GENERAL PERMIT COVERAGE
APPROVAL)	RENEWAL

The Department of Environmental Protection (Department/DEP) has considered the Notice of Intent submitted by the TOWN OF OLD ORCHARD BEACH (Town/permittee), with supportive data, agency review comments and other related materials on file for coverage under the Municipal Separate Storm Sewer System (MS4) General Permit, #MER041000, issued by the Department on October 15, 2020 and revised on November 23, 2021, and FINDS THE FOLLOWING FACTS.

The permittee submitted a Notice of Intent (NOI) with an initial Stormwater Management Plan (SWMP) to the Department on March 30, 2021 that were made available for a 30-day public comment period on the Department's website at <https://www.maine.gov/dep/comment/comment.html?id=4463193>. No public comments were received on the NOI or the initial SWMP. The Department has reviewed the initial SWMP document and made the determination that the document is consistent with and fully articulates what is required to meet the MS4 GP standard. Pursuant to Part IV(B) of MS4 GP issued by the Department on October 15, 2020 and revised on November 23, 2021, the permittee must update the initial SWMP within 60 days of the effective date of this DEP permittee specific order or within 60 days of the final resolution to an appeal of this DEP permittee specific order. The final plan must be submitted to the Department and will be posted on the Department's website.

The permittee must fully implement the following Best Management Practices in accordance with their associated schedules of compliance, as established in the Modified Stormwater Management Plan that is in effect at the time any schedule for compliance is due.

- MCM 1: BMPs 1.1, 1.2, and 1.3;
- MCM 2: BMPs 2.1 and 2.2;
- MCM 3: BMPs 3.1, 3.2, 3.3, 3.4, 3.5, and 3.6;
- MCM 4: BMPs 4.1, 4.2, 4.3, 4.4, and 4.5;
- MCM 5: BMPs 5.1 and 5.2;
- MCM 6: BMPs 6.1, 6.2, 6.3, 6.4, 6.5, and 6.6.

The permittee has agreed to comply with all terms and conditions of the MS4 General Permit, #MER041000, dated October 15, 2020 and revised on November 23, 2021. Operated in accordance with the Municipal Separate Storm Sewer System (MS4) General Permit, #MER041000, the discharges identified by the permittee will not have a significant adverse effect on water quality or cause or contribute to the violation of the water quality standards of the receiving water. To meet the standards of the MS4 General Permit, the permittee must implement the following terms and conditions.

Impaired Waters

The Town’s MS4 includes point source discharges to Goosefare Brook which is classified as an Urban Impaired Stream in Maine DEP Rule Chapter 502 and is listed in the 2005 Maine Impervious Cover Total Maximum Daily Load document. To meet the standards of the MS4 GP for impaired waters, the permittee must also fully implement the following Best Management Practices in accordance with their associated schedules of compliance, as established in the Modified Stormwater Management Plan that is in effect at the time any schedule for compliance is due.

BMPs 7.1, 7.2, 7.3

Modifications to the Initial Stormwater Management Plan required as a result of this Order. if any, must be provided to the Department in accordance with Part /VB of the MS4 GP. and the Department will notify the permittee if further changes are required in accordance with Part IVB.2.

THEREFORE, the Department GRANTS the TOWN OF OLD ORCHARD BEACH, coverage under the Municipal Separate Storm Sewer System (MS4) General Permit, #MER041000, issued by the Department on October 15, 2020 and revised on November 23, 2021, subject to the terms and conditions therein.

This DEP permittee specific order becomes effective on July 1, 2022 and expires at midnight five (5) years after that date. If the GP is to be renewed, this DEP permittee specific order will remain in effect and enforceable until the Department takes final action on the renewal.

DONE AND DATED AT AUGUSTA, MAINE, THIS 24 DAY OF May, 2022.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: 
for Melanie Loyzim, Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

The Notice of Intent was received by the Department on March 30, 2021.

The Notice of Intent was accepted by the Department on April 5, 2021.

FILED
MAY 24, 2022
State of Maine
Board of Environmental Protection

Date filed with Board of Environmental Protection: _____

This Order prepared by GREGG WOOD, BUREAU OF WATER QUALITY

RESPONSE TO COMMENTS

During the period of March 16, 2022 through the date of signature of this final agency action, the Department solicited comments on the draft MEPDES DEP permittee specific order. The Department did receive timely written comments from the permittee. Responses to substantive comments are as follows:

Comment #1: The language in the draft order (italicized below) is potentially vague, which may lead to confusion about what steps are required for compliance.

“The permittee must fully implement all actions, schedules and milestones established in the March 31, 2021 initial SWMP and any revisions to the initial SWMP reflected in the final plan.”

Specifically, the permittee is concerned that in the SWMPs it may not always be clear what qualifies as mandatory “actions, schedules and milestones” and what does not. This is because the SWMPs were written broadly to, in addition to setting out specific and measurable actions, provide helpful context, educate officials and citizens about the Plan, and establish process, among other things. There is, therefore, significant text in the SWMPs that does not appear to be an action, schedule, or milestone, and thus would not be enforceable. The permittee is concerned that it will not always be clear exactly what is mandatory and what is not. Additionally, the permittee believes that the language about enforcing any additional revisions to the SWMP also may be somewhat unclear, given that SWMPs are living documents that are expected under the new MS4 general permit to evolve over time.

Response #1: The Department concurs with the permittee’s position on the purpose and enforceability of the SWMP as a stand-alone document. Part VI(E), *Relationship Between the SWMP and Permit Required Terms and Conditions* of the December 9, 2016 Federal Register states in relevant part “...under EPA small MS4 regulations, the details included the permittee’s SWMP document are not directly enforceable as effluent limitations of the permit. The SWMP document is intended to be a tool that describes the means by which the MS4 establishes its stormwater controls and engages in the adaptive management process during the term of the permit. While the requirement to develop a SWMP document is an enforceable condition of the permit (see §122.34(b) of the final rule) the contents of the stormwater management document itself are not enforceable as effluent limitations of the permit, unless the document or specific details within the SWMP are specifically incorporated by the permitting authority into the permit.”

Part VI(E), also states in relevant part “... the details of any part of the permittee's program that are described in the SWMP, unless specifically incorporated into the permit, are not enforceable under the permit, and because they are not terms of the permit, the MS4 may revise those parts of the SWMP if necessary to meet any permit requirements or to make improvements to stormwater controls during the permit term. As discussed in more detail below, the permitting authority has discretion to determine what elements, if any, of the SWMP are to be made enforceable, but in order to do so it must follow the procedural requirements for the second step under Sec. 122.28(d)(2).

The regulations envision that the MS4 permittee will develop a written SWMP document that provides a road map for how the permittee will comply with the permit. The SWMP document(s) can be changed based on adaptations made during the course of the permit, which enable the permittee to react to circumstances and experiences on the ground and to make adjustments to its program to better comply with the permit. The fact that the SWMP is an external tool and not required to be part of the permit is intended to enable the MS4 permittee to be able to modify and retool its approach during the course of the permit term in order to continually improve how it complies with the permit and to do this without requiring the permitting authority to review and approve each change as a permit modification.”

Comment #2: The General Permit does require that the SWMPs be updated and sent out for public comment annually and lays out a process for any other needed revisions. Multiple versions of the SWMPs should not be enforceable. The only version that should be enforceable is the version that is in force at the time a Best Management Practice or Measurable Goal is due. Accordingly, we recommend clarifying this provision to eliminate any potential confusion.

This will, in turn, promote compliance and lead to better water quality. To accomplish that, we note that our SWMPs have Best Management Practices (BMPs) with Measurable Goals and believe the second step order would be more clear if it references that we will fully implement those BMPs. This approach is consistent with Part III.A.8 of the GP which provides: “Following the public comment period on the NOI, the Department will issue a permittee specific DEP Order that establishes additional terms and conditions, including but not limited to, a list of required actions and corresponding schedules of compliance for a limited number BMPs associated with the implementation of this GP.” Thus, we suggest the following italicized text be incorporated into the final Order:

The permittee must fully implement the following Best Management Practices in accordance with their associated schedules of compliance, as established in the Modified Stormwater Management Plan that is in effect at the time any schedule for compliance is due

MCM 1: BMPs 1.1, 1.2, and 1.3;

MCM 2: BMPs 2.1 and 2.2;

MCM 3: BMPs 3.1, 3.2, 3.3, 3.4, 3.5, and 3.6;

MCM 4: BMPs 4.1, 4.2, 4.3, 4.4, and 4.5;

MCM 5: BMPs 5.1 and 5.2;

MCM 6: BMPs 6.1, 6.2, 6.3, 6.4, 6.5, and 6.6.

Modifications to the Initial Stormwater Management Plan required as a result of this Order, if any, must be provided to the Department in accordance with Part IV.B of the MS4 GP, and the Department will notify the permittee if further changes are required in accordance with Part IV.B.2.

Impaired waters

To meet the standards of the MS4 GP for impaired waters, the permittee must also fully implement the following Best Management Practices in accordance with their associated schedules of compliance, as established in the Modified Stormwater Management Plan that is in effect at the time any schedule for compliance is due.

BMPs 7.1, 7.2, 7.3

Response #2: The revisions cited above are acceptable to the Department and are consistent with Remand Rule in that “the permitting authority has discretion to determine what elements, if any, of the SWMP are to be made enforceable, but in order to do so it must follow the procedural requirements for the second step under Sec. 122.28(d)(2).”

Part IV.B of the GP states in relevant part “Modified Stormwater Management Plan (SWMP). The permittee must implement and enforce a written (hardcopy or electronic) SWMP. The initial SWMP must be updated within 60 days of permit authorization to include how the permittee will meet all requirements of the DEP Order. The modified SWMP must include a summary of the comments received during the MS4s public comment period and any corresponding changes to the SWMP made in response to the comments received. The permittee must perform all actions required by the permittee specific DEP Order in accordance with the timelines in the permittee specific DEP Order. Unless otherwise specified by the Department in writing, the permittee must submit the updated SWMP to the Department indicating how the permittee has modified their SWMP to be consistent with the GP and permittee specific DEP Order. To modify the schedule established in the permittee specific DEP Order, the permittee must file an application on a DEP form with the Department that includes a justification to formally modify the original permittee specific DEP Order.”

The final DEP permittee specific order has been modified accordingly.



DEP INFORMATION SHEET

Appealing a Department Licensing Decision

Dated: August 2021

Contact: (207) 314-1458

SUMMARY

This document provides information regarding a person's rights and obligations in filing an administrative or judicial appeal of a licensing decision made by the Department of Environmental Protection's (DEP) Commissioner.

Except as provided below, there are two methods available to an aggrieved person seeking to appeal a licensing decision made by the DEP Commissioner: (1) an administrative process before the Board of Environmental Protection (Board); or (2) a judicial process before Maine's Superior Court. An aggrieved person seeking review of a licensing decision over which the Board had original jurisdiction may seek judicial review in Maine's Superior Court.

A judicial appeal of final action by the Commissioner or the Board regarding an application for an expedited wind energy development ([35-A M.R.S. § 3451\(4\)](#)) or a general permit for an offshore wind energy demonstration project ([38 M.R.S. § 480-HH\(1\)](#)) or a general permit for a tidal energy demonstration project ([38 M.R.S. § 636-A](#)) must be taken to the Supreme Judicial Court sitting as the Law Court.

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

A person filing an appeal with the Board should review Organization and Powers, [38 M.R.S. §§ 341-D\(4\)](#) and [346](#); the Maine Administrative Procedure Act, 5 M.R.S. § [11001](#); and the DEP's [Rule Concerning the Processing of Applications and Other Administrative Matters \(Chapter 2\)](#), 06-096 C.M.R. ch. 2.

DEADLINE TO SUBMIT AN APPEAL TO THE BOARD

Not more than 30 days following the filing of a license decision by the Commissioner with the Board, an aggrieved person may appeal to the Board for review of the Commissioner's decision. The filing of an appeal with the Board, in care of the Board Clerk, is complete when the Board receives the submission by the close of business on the due date (5:00 p.m. on the 30th calendar day from which the Commissioner's decision was filed with the Board, as determined by the received time stamp on the document or electronic mail). Appeals filed after 5:00 p.m. on the 30th calendar day from which the Commissioner's decision was filed with the Board will be dismissed as untimely, absent a showing of good cause.

HOW TO SUBMIT AN APPEAL TO THE BOARD

An appeal to the Board may be submitted via postal mail or electronic mail and must contain all signatures and required appeal contents. An electronic filing must contain the scanned original signature of the appellant(s). The appeal documents must be sent to the following address.

Chair, Board of Environmental Protection
c/o Board Clerk
17 State House Station
Augusta, ME 04333-0017
ruth.a.burke@maine.gov

The DEP may also request the submittal of the original signed paper appeal documents when the appeal is filed electronically. The risk of material not being received in a timely manner is on the sender, regardless of the method used.

At the time an appeal is filed with the Board, the appellant must send a copy of the appeal to: (1) the Commissioner of the DEP (Maine Department of Environmental Protection, 17 State House Station, Augusta, Maine 04333-0017); (2) the licensee; and if a hearing was held on the application, (3) any intervenors in that hearing proceeding. **Please contact the DEP at 207-287-7688 with questions or for contact information regarding a specific licensing decision.**

REQUIRED APPEAL CONTENTS

A complete appeal must contain the following information at the time the appeal is submitted.

1. *Aggrieved status.* The appeal must explain how the appellant has standing to bring the appeal. This requires an explanation of how the appellant may suffer a particularized injury as a result of the Commissioner's decision.
2. *The findings, conclusions, or conditions objected to or believed to be in error.* The appeal must identify the specific findings of fact, conclusions of law, license conditions, or other aspects of the written license decision or of the license review process that the appellant objects to or believes to be in error.
3. *The basis of the objections or challenge.* For the objections identified in Item #2, the appeal must state why the appellant believes that the license decision is incorrect and should be modified or reversed. If possible, the appeal should cite specific evidence in the record or specific licensing criteria that the appellant believes were not properly considered or fully addressed.
4. *The remedy sought.* This can range from reversal of the Commissioner's decision on the license to changes in specific license conditions.
5. *All the matters to be contested.* The Board will limit its consideration to those matters specifically raised in the written notice of appeal.
6. *Request for hearing.* If the appellant wishes the Board to hold a public hearing on the appeal, a request for hearing must be filed as part of the notice of appeal, and it must include an offer of proof regarding the testimony and other evidence that would be presented at the hearing. The offer of proof must consist of a statement of the substance of the evidence, its relevance to the issues on appeal, and whether any witnesses would testify. The Board will hear the arguments in favor of and in opposition to a hearing on the appeal and the presentations on the merits of an appeal at a regularly scheduled meeting. If the Board decides to hold a public hearing on an appeal, that hearing will then be scheduled for a later date.
7. *New or additional evidence to be offered.* If an appellant wants to provide evidence not previously provided to DEP staff during the DEP's review of the application, the request and the proposed supplemental evidence must be submitted with the appeal. The Board may allow new or additional evidence to be considered in an appeal only under limited circumstances. The proposed supplemental evidence must be relevant and material, and (a) the person seeking to add information to the record must show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process; or (b) the evidence itself must be newly discovered and therefore unable to have been presented earlier in the process. Requirements for supplemental evidence are set forth in [Chapter 2 § 24](#).

OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD

1. *Be familiar with all relevant material in the DEP record.* A license application file is public information, subject to any applicable statutory exceptions, and is made accessible by the DEP. Upon request, the DEP will make application materials available to review and photocopy during normal working hours. There may be a charge for copies or copying services.

2. *Be familiar with the regulations and laws under which the application was processed, and the procedural rules governing the appeal.* DEP staff will provide this information upon request and answer general questions regarding the appeal process.
3. *The filing of an appeal does not operate as a stay to any decision.* If a license has been granted and it has been appealed, the license normally remains in effect pending the processing of the appeal. Unless a stay of the decision is requested and granted, a licensee may proceed with a project pending the outcome of an appeal, but the licensee runs the risk of the decision being reversed or modified as a result of the appeal.

WHAT TO EXPECT ONCE YOU FILE A TIMELY APPEAL WITH THE BOARD

The Board will acknowledge receipt of an appeal, and it will provide the name of the DEP project manager assigned to the specific appeal. The notice of appeal, any materials admitted by the Board as supplementary evidence, any materials admitted in response to the appeal, relevant excerpts from the DEP's administrative record for the application, and the DEP staff's recommendation, in the form of a proposed Board Order, will be provided to Board members. The appellant, the licensee, and parties of record are notified in advance of the date set for the Board's consideration of an appeal or request for a hearing. The appellant and the licensee will have an opportunity to address the Board at the Board meeting. The Board will decide whether to hold a hearing on appeal when one is requested before deciding the merits of the appeal. The Board's decision on appeal may be to affirm all or part, affirm with conditions, order a hearing to be held as expeditiously as possible, reverse all or part of the decision of the Commissioner, or remand the matter to the Commissioner for further proceedings. The Board will notify the appellant, the licensee, and parties of record of its decision on appeal.

II. JUDICIAL APPEALS

Maine law generally allows aggrieved persons to appeal final Commissioner or Board licensing decisions to Maine's Superior Court (see [38 M.R.S. § 346\(1\)](#); 06-096 C.M.R. ch. 2; [5 M.R.S. § 11001](#); and M.R. Civ. P. 80C). A party's appeal must be filed with the Superior Court within 30 days of receipt of notice of the Board's or the Commissioner's decision. For any other person, an appeal must be filed within 40 days of the date the decision was rendered. An appeal to court of a license decision regarding an expedited wind energy development, a general permit for an offshore wind energy demonstration project, or a general permit for a tidal energy demonstration project may only be taken directly to the Maine Supreme Judicial Court. See 38 M.R.S. § 346(4).

Maine's Administrative Procedure Act, DEP statutes governing a particular matter, and the Maine Rules of Civil Procedure must be consulted for the substantive and procedural details applicable to judicial appeals.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal process, for administrative appeals contact the Board Clerk at 207-287-2811 or the Board Executive Analyst at 207-314-1458 bill.hinkel@maine.gov, or for judicial appeals contact the court clerk's office in which the appeal will be filed.

Note: This information sheet, in conjunction with a review of the statutory and regulatory provisions referred to herein, is provided to help a person to understand their rights and obligations in filing an administrative or judicial appeal. The DEP provides this information sheet for general guidance only; it is not intended for use as a legal reference. Maine law governs an appellant's rights.

Appendix C
Public Notice and Summary of Comments
Received



C

COURIER CLASSIFIEDS

To Place Your Ad call **282-4337** or stop by our office **6 Digital Drive, Biddeford**

22,500 Total Circulation

Reach more than 75,000 people by advertising in all 5 of our papers!

- **CARS, TRUCKS & VANS** - Pay only \$20 for 8 weeks for 1 paper! \$3 for each additional paper. (up to 20 words, then 15¢ for each additional word).
- **NOVENAS** - same as non-business rates.

- **NON-BUSINESS CLASSIFIED ADS** - \$15.00 per week or only \$30 for 3 weeks (up to 20 words, then 15¢ for each additional word).
- **YARD SALE ADS** - Only \$15.00 per paper, per week. Only \$5 a week per additional paper

- **AD DEADLINE IS 5 PM ON FRIDAYS**
- **PRE-PAYMENT IS NECESSARY FOR PLACING ALL CLASSIFIED ADS**

We accept

• **Mainly MediaLLC does not issue refunds.**

PUBLIC NOTICES

CITY OF BIDDEFORD

INDUSTRIAL PRETREATMENT PROGRAM SNC PUBLICATION

The City of Biddeford's Industrial Pretreatment Program is required under 40 CFR Part 403.8(f)(2)(vii) and 06-096 Chapter 528(9)(f)(2)(vii) to annually publish a list of industrial users in significant noncompliance. The publication requirement is in accordance with the public participation requirements of 40 CFR Part 25 in the enforcement of National Pretreatment Standards. Significant noncompliance (SNC) is defined as meeting one or more criteria listed in 06-096 Chapter 528(9)(f)(2)(vii)(A-H) and covers the prior 12-month period. This reporting period covers January 1, 2020 through December 31, 2020. The following industry was deemed to be in significant noncompliance: Banded Brewing.

PUBLIC NOTICES

Public Notice Town of Old Orchard Beach

The Town of Old Orchard Beach, Maine will file a Notice of Intent (NOI) to comply with the Maine General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems issued 10/15/2020 (MER041000 W009170-5Y-C-R) and an associated Stormwater Management Plan (SWMP) with the Maine Department of Environmental Protection. The NOI and SWMP will be filed on or about March 31, 2021. A copy may be viewed at Old Orchard Beach Town Hall and on the Public Works website: <https://www.oobmaine.com/public-works>

The DEP will review the submittal and assess if it is complete for processing within 60 days of submittal. Once it has been deemed complete for processing, it will be made available on the Maine DEP website for 30-day public comment: <https://www.maine.gov/dep/comment/index.html>. A request for public hearing or request that the Board of Environmental Protection assume jurisdiction over this application must be received by the DEP, in writing, no later than 20 days after the application is found acceptable for processing. Requests must indicate the interest of the person filing the request and specify the reasons why a hearing is warranted. Unless otherwise provided by law, a hearing is discretionary and may be held if the Commissioner or the Board finds significant public interest or there is conflicting technical information.

The NOI and SWMP are also available for viewing at the DEP Office in Augusta by scheduled appointment during normal business hours during the pandemic. Written public comments or requests for information may be made to the Division of Water Quality Management, Department of Environmental Protection, State House Station #17, Augusta, ME 04333-0017; telephone (207) 592-6233 and must include the name of the municipality filing the NOI and the Permit number provided above.

IT PAYS

...TO ADVERTISE IN THE CLASSIFIEDS!

C

Courier Classifieds

AT YOUR SERVICE

BASEMENT SERVICES

FREE ESTIMATES!

EVERYTHING BASEMENT!

- Basement Waterproofing
- Sump Basins and Pumps
- Air Filtration & Humidity

B-Dry

WATERPROOFING

#1 in Maine & NH since 1985

207-282-0718
bdrymaineh.com

CLEANING SERVICES

Cleaning Person Needed

20-25 hours per week, evenings clean background check. Call for more information

Clean One Janitorial
207-490-2802

COAL OIL & WOOD

Seasoned Firewood

Stored in barn.

\$310 per cord 2 or more cords.

Dubois
(207) 282-4445

CHIMNEY SERVICES

CSIA Certified

CLEANED • LINED • PROFESSIONAL REPAIRS

- GUARANTEED NO MESS -

"Fire Safety Means Peace of Mind"

CHARLIE'S CHIMNEYS

985-3477

www.charlieschimneys.com FULLY INSURED

Advertising Really Works!

CLEANUP AND HAULING

THE DUMP GUY

Basement, Attic, Garage & Apartment Cleanouts

Boat, Camper & Demolition

JUNK REMOVAL

ACCREDITED BUSINESS

Angie's List

(207) 450-5858 • www.thedumpguy.com Fully Insured

COAL OIL & WOOD

SEASONED FIREWOOD

Cut, Split & Delivered

\$280 per cord

1 cord minimum

Winterwood Farm
459-0278

CONTRACTORS

We Put Your Property First

- ◆ General Contracting
- ◆ Sealcoating
- ◆ Patch Work
- ◆ Scheduled Estimates
- ◆ Insured Business
- ◆ Gravel & Asphalt Service

207-286-5659 or 207-710-9512
PropertyFirstLLC@outlook.com

Your Ad Could Be Here!

Call 282-4337

CONSTRUCTION

STEWART CONSTRUCTION

- * REMODELING *
- * NEW CONSTRUCTION *
- * ALL ASPECTS *
- * SANDING *

Call Rich 207-391-0564 or go to my website
Stewartconstructionme.com

COAL OIL & WOOD

FIREWOOD

from Sustainable Hardscrabble Farms Forest in Arundel. Any amount delivered. Also, campfire wood.

Call 207-282-2060

ADVERTISING WEEKLY WORKS!

DRIVEWAYS

Kp

ASPHALT

COMMERCIAL RESIDENTIAL

BOOKING NOW!

Driveways • Parking Lots • Reclaim Driveways
Excavation • Seal Coating • Loam
Pavers • Cobblestone • Tree Work

WE NOW ACCEPT ALL MAJOR CREDIT CARDS

207-284-0046

www.kpasphalt.com

March 26, 2021
W-P Project No. 11155K

Stephen Buckley
Scarborough Public Works Department
20 Washington Ave
Scarborough, ME 04074
sbuckley@scarboroughmaine.org

Subject: Old Orchard Beach MS4 Program
Interconnected MS4 Notice

Dear Stephen:

On behalf of the Town of Old Orchard Beach, we are formally notifying you that the Town intends to apply for continued coverage under the Maine Department of Environmental Protection's (DEP's) General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4 General Permit) on or around March 31, 2021, which includes providing public notice to all regulated small MS4s into which the MS4 discharges.

As required by the MS4 General Permit, the Town of Old Orchard Beach has an Illicit Discharge Detection and Elimination (IDDE) program. If an illicit discharge event occurs, including spills of hazardous or non-hazardous substances, in or associated with your regulated MS4 that has the potential to discharge to the Town of Old Orchard Beach, including to the Town's regulated MS4, please report the incident to the Town of Old Orchard Beach Department of Public Works at (207) 934-2250. In the event of an emergency situation that you need immediate assistance from the Town of Old Orchard Beach, please call Dispatch at (207) 934-4911 to have the appropriate party dispatched.

Sincerely,
WRIGHT-PIERCE



Christine T.M. Rinehart, PE
Lead Project Engineer
christine.rinehart@wright-pierce.com

cc: *Joe Cooper, Director of Public Works*
Lisa Wilson, Administrative Operations Manager

March 26, 2021
W-P Project No. 11155K

Joseph Laverriere, PE
Saco Public Works Department
15 Phillips Spring Road
Saco, ME 04072
jlaverriere@sacomaine.org

Subject: Old Orchard Beach MS4 Program
Interconnected MS4 Notice

Dear Joe:

On behalf of the Town of Old Orchard Beach, we are formally notifying you that the Town intends to apply for continued coverage under the Maine Department of Environmental Protection's (DEP's) General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4 General Permit) on or around March 31, 2021, which includes providing public notice to all regulated small MS4s into which the MS4 discharges.

As required by the MS4 General Permit, the Town of Old Orchard Beach has an Illicit Discharge Detection and Elimination (IDDE) program. If an illicit discharge event occurs, including spills of hazardous or non-hazardous substances, in or associated with your regulated MS4 that has the potential to discharge to the Town of Old Orchard Beach, including to the Town's regulated MS4, please report the incident to the Town of Old Orchard Beach Department of Public Works at (207) 934-2250. In the event of an emergency situation that you need immediate assistance from the Town of Old Orchard Beach, please call Dispatch at (207) 934-4911 to have the appropriate party dispatched.

Sincerely,
WRIGHT-PIERCE



Christine T.M. Rinehart, PE
Lead Project Engineer
christine.rinehart@wright-pierce.com

cc: *Joe Cooper, Director of Public Works*
Lisa Wilson, Administrative Operations Manager

March 26, 2021
W-P Project No. 11155K

Kerem Gungor, PE
Maine DOT Environmental Office
16 State House Station
Augusta, ME 04333
kerem.gungor@maine.gov

Subject: Old Orchard Beach MS4 Program
Interconnected MS4 Notice

Dear Kerem:

On behalf of the Town of Old Orchard Beach, we are formally notifying you that the Town intends to apply for continued coverage under the Maine Department of Environmental Protection's (DEP's) General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4 General Permit) on or around March 31, 2021, which includes providing public notice to all regulated small MS4s into which the MS4 discharges.

As required by the MS4 General Permit, the Town of Old Orchard Beach has an Illicit Discharge Detection and Elimination (IDDE) program. If an illicit discharge event occurs, including spills of hazardous or non-hazardous substances, in or associated with your regulated MS4 that has the potential to discharge to the Town of Old Orchard Beach, including to the Town's regulated MS4, please report the incident to the Town of Old Orchard Beach Department of Public Works at (207) 934-2250. In the event of an emergency situation that you need immediate assistance from the Town of Old Orchard Beach, please call Dispatch at (207) 934-4911 to have the appropriate party dispatched.

Sincerely,
WRIGHT-PIERCE



Christine T.M. Rinehart, PE
Lead Project Engineer
christine.rinehart@wright-pierce.com

cc: *Joe Cooper, Director of Public Works*
Lisa Wilson, Administrative Operations Manager

Summary of Public Comments Received

The NOI and initial SWMP were posted for a 30-day public comment period by Maine DEP. The comment deadline was May 12, 2021. No Public Comments were received during this period. A screen capture of the Maine DEP’s Opportunity to Comment webpage is shown below:

Assistance
Commissioner's Office
Permits, Licenses, Certifications
Maps and Data
Programs
Rulemaking and Comment Opportunity
Compliance and Enforcement
Publications and Resources
Newsroom

Opportunity for Comment

Municipal applications for permit coverage under the 2022 General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4).

Comment deadline: May 12, 2021

The Department is posting for public comment Municipal applications, including Notice of Intent to Comply (NOI) and Stormwater Management Plans (SWMP), for municipalities seeking coverage under the 2022 General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4).

Submit written comments to Rhonda Poirier rhonda.poirier@maine.gov by 5:00 p.m. May 12, 2021.

[Municipal NOI and SWMP files for comment.](#)

A request for public hearing must be received by the DEP, in writing, no later than 20 days after the application is found acceptable for processing. Requests must indicate the interest of the person filing the request and specify the reasons why a hearing is warranted. Unless otherwise provided by law, a hearing is discretionary and may be held if the Commissioner or the Board finds significant public interest or there is conflicting technical information.

<https://www.maine.gov/dep/comment/comment.html?id=4463193>

The permittee-specific DEP order was issued for 30-day Public Comment by Maine DEP. The comment deadline was April 18, 2022. Response to comments received is provided with the final permittee-specific DEP order in Appendix B. A screen capture of the Maine DEP’s Opportunity to Comment webpage is shown below.

Assistance
Commissioner's Office
Permits, Licenses, Certifications
Maps and Data
Programs
Rulemaking and Comment Opportunity
Compliance and Enforcement
Publications and Resources
Newsroom

Opportunity for Comment

Municipal applications for permit coverage under the 2022 General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4)

Comment deadline: April 18, 2022, 5:00 PM

The Department is posting for public comment Municipal applications, including Notice of Intent to Comply (NOI) and Stormwater Management Plans (SWMP), for municipalities seeking coverage under the 2022 General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4).

Public comment on the draft documents will be received for a 30-day period beginning on Wednesday, March 16, 2022 and ending on Monday April 18, 2022. Submit written comments to the attention of Gregg Wood gregg.wood@maine.gov before 5:00 PM on Monday, April 18, 2022.

[Municipal Department Draft Order files for comment](#)

<https://www.maine.gov/dep/comment/comment.html?id=6170523>

Appendix D
Education & Outreach Tools, Levels of Effort, and
Effectiveness Benchmarks



EDUCATION & OUTREACH TOOLS, LEVELS OF EFFORT, AND EFFECTIVENESS BENCHMARKS

Audience appropriate social media platforms will be determined by platform use demographics each year.

**TABLE 1. TOOLS FOR MEASURABLE GOAL 1.1A.
(PEOPLE 25 TO 34 IN THE ISWG REGION)**

Outreach Tool	Minimum Level of Effort	Effectiveness Benchmark
Think Blue Maine Website Content	Semiannual updates to website content	Number of visitors to website
Social Media Post (each platform counts as separate tool)	12 posts	Amount of post engagement (e.g., reactions, comments, shares, etc.)
Social Media Ad (each platform counts as separate tool)	Ad(s) run 90 days (multiple ads may be run for shorter durations to total 90 days)	Amount of ad engagement (e.g., reactions, comments, shares, link clicks, etc.) Number of people reached with ad
Social Media Video (each platform counts as separate tool)	3 videos	Amount of video engagement (e.g., views, reactions, comments, shares, etc.)
Online ad	Ad(s) run 90 days (multiple ads may be run for shorter durations to total 90 days)	Number of people reached with ad Amount of ad engagement (e.g., link clicks)
Outreach Tabling	3 events	Number of interactions
Outreach partnership with local organization	3 content shares by partner organization	Number of people reached
Other DEP-approved tools	Minimum level of effort will be determined based on the tool	Effectiveness benchmark will be determined based on the tool

**TABLE 2. TOOLS FOR MEASURABLE GOAL 1.1B.
(CONTRACTORS LOCATED WITHIN THE ISWG REGION)**

Outreach Tool	Minimum Level of Effort	Effectiveness Benchmark
Factsheet	1 factsheet	Total number of factsheets distributed
Email Newsletter	4 email newsletters	Number of people reached with email Number of interactions with email (e.g., link clicks)
Municipal Website Content	Annual updates to website stormwater content	Number of visitors to stormwater webpage(s)
Think Blue Maine Website Content	Semiannual updates to website content	Number of visitors to website
Online ad	Ad(s) run 90 days (multiple ads may be run for shorter durations to total 90 days)	Number of people reached with ad Amount of ad engagement (e.g., link clicks)
Webinar/Workshop	7 hours of training offered (multiple webinars/workshops may be offered to reach 7 hours)	Number of workshop attendees
Outreach partnership with local organization	3 content shares by partner organization	Number of people reached
Other DEP-approved tools	Minimum level of effort will be determined based on the tool	Effectiveness benchmark will be determined based on the tool

**TABLE 3. TOOLS FOR MEASURABLE GOAL 1.2A.
(DOG OWNERS AGES 25 TO 34 WITHIN THE ISWG REGION)**

Outreach Tool	Minimum Level of Effort	Effectiveness Benchmark
Targeted Social Media Post (each platform counts as separate tool)	12 posts	Amount of post engagement (e.g., reactions, comments, shares, etc.)
Targeted Social Media Ad (each platform counts as separate tool)	Ad(s) run 90 days (multiple ads may be run for shorter durations to total 90 days)	Amount of ad engagement (e.g., reactions, comments, shares, link clicks, etc.) Number of people reached with ad
Targeted Social Media Video (each platform counts as separate tool)	3 videos	Amount of video engagement (e.g., views, reactions, comments, shares, etc.)
Outreach Tabling	3 events	Number of interactions
Outreach partnership with local organization	3 content shares by partner organization	Number of people reached
Item with branding/messaging	1 item with branding/messaging	Total number of items distributed
Other DEP-approved tools	Minimum level of effort will be determined based on the tool	Effectiveness benchmark will be determined based on the tool

**TABLE 4. TOOLS FOR MEASURABLE GOAL 1.2B.
(DOG OWNERS AGES 35 TO 55 WITHIN THE ISWG REGION)**

Outreach Tool	Minimum Level of Effort	Effectiveness Benchmark
Story Walk	1 story walk	Number of QR code (or similar technology) scans from signs
Targeted Social Media Post (each platform counts as separate tool)	12 posts	Amount of post engagement (e.g., reactions, comments, shares, etc.)
Targeted Social Media Ad (each platform counts as separate tool)	Ad(s) run 90 days (multiple ads may be run for shorter durations to total 90 days)	Amount of ad engagement (e.g., reactions, comments, shares, link clicks, etc.) Number of people reached with ad
Online ad	Ad(s) run 90 days (multiple ads may be run for shorter durations to total 90 days)	Number of people reached with ad Amount of ad engagement (e.g., link clicks)
Outreach Tabling	3 events	Number of interactions
Outreach partnership with local retailer	50% of industry retailers in region participating	Number of local retailers participating
Item with branding/messaging	1 item with branding/messaging	Total number of items distributed
Other DEP-approved tools	Minimum level of effort will be determined based on the tool	Effectiveness benchmark will be determined based on the tool

**TABLE 5. TOOLS FOR MEASURABLE GOAL 1.4B.
REGIONAL WINTER MAINTENANCE BMP**

Outreach Tool	Minimum Level of Effort	Effectiveness Benchmark
Municipal Roadside Message Board	3 messages	Amount of time message was displayed
Email Newsletter	4 email newsletters	Number of people reached with email Number of interactions with email (e.g., link clicks)
Municipal Website Content	Annual updates to website stormwater content	Number of visitors to stormwater webpage(s)
Social Media Post (each platform counts as separate tool)	12 posts	Amount of post engagement (e.g., reactions, comments, shares, etc.)
Social Media Ad (each platform counts as separate tool)	Ad(s) run 90 days (multiple ads may be run for shorter durations to total 90 days)	Amount of ad engagement (e.g., reactions, comments, shares, link clicks, etc.) Number of people reached with ad
Online ad	Ad(s) run 90 days (multiple ads may be run for shorter durations to total 90 days)	Number of people reached with ad Amount of ad engagement (e.g., link clicks)
Newspaper Article	1 newspaper article	Number of people reached with article
Other DEP-approved tools	Minimum level of effort will be determined based on the tool	Effectiveness benchmark will be determined based on the tool

Appendix E
Illicit Discharge Detection and Elimination
(IDDE) Plan





OLD ORCHARD BEACH, MAINE

JULY 2022

Illicit Discharge Detection and Elimination (IDDE) Plan



Illicit Discharge Detection and
Elimination (IDDE) Plan
Old Orchard Beach, Maine

July 2022

Prepared By:

[Wright-Pierce](#)

11 Bowdoin Mill Island, Suite 140

Topsham, ME 04086

207.725.8721 | wright-pierce.com

Table of Contents

Section 1	Introduction	1-1
	1.1 Overview of Regulatory Program	1-1
	1.2 Common Types of Illicit Discharges	1-1
	1.3 Overview of IDDE Plan Components	1-3
Section 2	Authority and Statement of IDDE Responsibilities	2-1
	2.1 Authority to Prohibit Non-Stormwater Discharges	2-1
	2.1.1 IDDE Responsible Parties	2-2
Section 3	Available Resources	3-1
	3.1 Mapping	3-1
	3.2 Equipment to Trace Illicit Discharges	3-1
	3.3 Emergency Response	3-1
Section 4	Identification of Priority Area	4-1
Section 5	Procedures to Detect Illicit Discharges	5-1
	5.1 Dry Weather Outfall Inspections	5-1
	5.1.1 Initial Investigation	5-2
	5.2 Outfall Sampling and Analysis	5-2
	5.3 Catch Basin Inspections	5-3
	5.4 Citizen Call-In and After Hour Calls	5-3
	5.5 Town Department Reports	5-3
Section 6	Wet Weather Assessment	6-1
Section 7	Procedures to Investigate Illicit Discharges	7-1
	7.1 Tracing Techniques	7-1
	7.1.1 Visual Inspections	7-1
	7.1.2 Dye Testing, Smoke Testing, and CCTV Inspections	7-1
	7.1.3 Sandbagging/Damming	7-1
Section 8	Procedures to Remove Illicit Discharges	8-1
Section 9	Interconnections with Other MS4S	9-1
	9.1 Identification of Interconnections	9-1
	9.2 Cooperation With Other MS4S	9-1
Section 10	Procedures to Document Illicit Discharges	10-1
Section 11	Records Retention	11-1
Section 12	References	12-1

List of Appendices

Attachment 1 Figures

Attachment 2 Inspection Fields and Domains

Attachment 3 Illicit Discharge Incident Form

Attachment 4 Illicit Discharge Tracking Sheet

Attachment 5 Quality Assurance Project Plan (QAPP)

List of Tables

Table 2-1	IDDE Plan Points of Contact	2-2
Table 9-1	MS4 Interconnection Contacts	9-1

List of Abbreviations

IDDE	Illicit Discharge Detection and Elimination
MS4	Municipal Separate Storm Sewer System
SOP	Standard Operating Procedures
DEP	Department of Environmental Protection
NPDES	National Pollutant Discharge Elimination System
MCM	Minimum Control Measure
CWP	Center for Watershed Protection
SWDS	Subsurface Wastewater Disposal System
ug/L	Microgram per liter
mg/L	Milligrams per liter
CCTV	Closed-Circuit Television
TMDL	Total Maximum Daily Load
SWMP	Stormwater Management Plan
QAPP	Quality Assurance Project Plan
DOT	Department of Transportation

Section 1 Introduction

The following Illicit Discharge Detection and Elimination (IDDE) Plan has been developed to reduce the number of illicit discharges into the municipal separate storm sewer system (MS4) and to improve water quality in local waterbodies. The development of an IDDE program, including a written IDDE Plan, is a requirement of the Town's MS4 General Permit (described below). This document replaces the following previous documents:

- Standard Operating Procedure (SOP) for Dry Weather Inspection Program (May 2009; revised May 2014)
- Standard Operating Procedure (SOP) for Detection and Elimination of Illicit Discharges to Municipal Ditches within the Goosefare Brook Watershed (June 2013)
- Enforcement of Illicit Discharge Narrative (June 2015)
- Illicit Discharge Detection and Elimination (IDDE) Standard Operating Procedure (SOP) for the Town of Old Orchard Beach (March 2016, revised May 2017)
- Illicit Discharge Detection and Elimination (IDDE) Plan (March 2021, revised August 2021)

This IDDE 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 Town of Old Orchard Beach identifies that this IDDE Plan is not effective, or
- municipal operations change which need to be reflected in this IDDE Plan.

1.1 Overview of Regulatory Program

The Town of Old Orchard Beach holds a General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems, referred to as the MS4 General Permit issued by the Maine Department of Environmental Protection (DEP). The MS4 General Permit authorizes the direct discharge of stormwater from or associated with the Town's storm drain system to another MS4 or waters of the state, other than groundwater. The MS4 General Permit was originally issued in 2003, and is reissued every five years, unless it is administratively continued. The most current permit was issued on October 15, 2020, and revised November 23, 2021, with an effective date of July 1, 2022. The Maine DEP holds delegated authority under the Federal National Pollutant Discharge Elimination System (NPDES) permit program to administer the MS4 General Permit in Maine.

The MS4 General Permit requires permittees to address six minimum control measures (MCMs) listed below:

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

This IDDE Plan fulfills the MCM 3 IDDE requirements specified in Part IV.C.3.b of the 2022 MS4 General Permit.

1.2 Common Types of Illicit Discharges

The 2022 MS4 General Permit defines an illicit discharge as any discharge to a regulated MS4 that is not composed entirely of stormwater other than:

- discharges authorized pursuant to another permit issued pursuant to 38 M.R.S. §413,
- uncontaminated groundwater,
- water from a natural resource [such as a wetland], or
- other Allowable Non-Stormwater Discharges identified in Part IV.C.3.h of the MS4 General Permit.

Illicit discharges can enter the storm drain system through direct or indirect connections. Direct connections are piped connections to a storm drain and can include cross-connections or straight-pipes that discharge sewage or non-stormwater flows to the storm drain system. Indirect connections are flows that enter the storm drain system through inlets or infiltration through joints in the storm drain pipe and can include spills in the area surrounding a catch basin or inlet that enter the storm drain, intentional dumping into a catch basin or inlet, or groundwater seepage contaminated with diluted sanitary sewage from leaking or damaged sanitary sewer systems.

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 include:

- paint equipment rinse water
- carpet cleaning water
- sediment from construction sites
- wash water from vehicles (other than individual residential car washing by an owner)
- oil or gasoline from a vehicle crash or other source
- yard waste
- litter or pet waste

Transitory illicit discharges are often reported to an authority through a citizen complaint line or following observation by a municipal employee during regular duties. Since they are not recurring, they are the most difficult to investigate, trace, and remove. The best method to reduce transitory discharges is through 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 (several hours per day, or a few days a year). Intermittent Illicit 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, or illegal connections from a single home sanitary service or floor drains from industrial or commercial operations. Intermittent discharges can also result from activities such as excessive irrigation or wash water from exterior areas. The 2022 MS4 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. Since intermittent discharges are longer lasting than transitory illicit discharges, 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 have large or small impacts on water bodies depending on the pollutant content.

3. Continuous Illicit Discharges continue without changing and are typically the result of a direct connection from a sanitary sewer or service, 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). They can result from cross connections, physical defects in a sanitary sewer system, or malfunctioning subsurface wastewater disposal system (SWDS).

1.3 Overview of IDDE Plan Components

The MS4 General Permit requires an IDDE Plan be developed and implemented to assist the Town in locating and eliminating illicit discharges. An overview of each component of this IDDE Plan is provided in this subsection, and the remaining sections of this document describe how the Town of Old Orchard Beach is implementing each component.

- Authority and Statement of IDDE Responsibilities – To the extent allowable under state or local law, the Town must effectively prohibit, through an ordinance or other regulatory mechanism, non-stormwater discharges into the storm sewer system and implement appropriate enforcement procedures and actions. Section 2 of this document describes how the Town’s Illicit Discharge Ordinance is implemented and the responsible parties for the IDDE program.
- Available Resources – The Town has various resources available to aid in the detection and elimination of illicit discharges, including mapping, equipment to trace illicit discharges, and emergency response. Section 3 of this document describes the resources available to the Town.
- Identification of Priority Areas – The 2022 MS4 General Permit requires the Town have “procedures for prioritizing watersheds”. The Town’s priority area is Goosefare Brook watershed, which is described in Section 4 of this document.
- Procedures to Detect Illicit Discharges – The Town must develop procedures for locating illicit discharges by conducting dry weather outfall inspections and assessing catch basins for evidence of pollutants. The 2022 MS4 General Permit requires the monitoring be conducted on outfalls that are flowing during dry weather. Section 5 of this document describes the Town’s detection and inspection procedures.
- Wet Weather Assessment – The Town must complete a desktop wet weather assessment prior to the expiration of the 2022 MS4 General Permit for the potential for illicit discharges during wet weather events. Section 6 of this document describes the required wet weather assessment.
- Procedures to Investigate and Remove Illicit Discharges – The Town must develop procedures for locating the source of the discharge and procedures for the removal of the source. Sections 7 and 8 of this document describe how the Town investigates potential discharges to determine their sources and removes illicit discharges once the source is discovered.
- Interconnections with other MS4s – The Town’s regulated MS4 is interconnected with other regulated MS4s. Cooperation with and notification to other MS4s is described in Section 9.
- Documentation and Record Retention – The Town must develop procedures for documenting actions and evaluating impacts on the storm sewer system after the removal. Section 10 describes how the Town tracks illicit discharges and Section 11 of this document describes the record retention requirements of the MS4 General Permit.
- References – References are provided in Section 12 of this document.

Section 2 Authority and Statement of IDDE Responsibilities

2.1 Authority to Prohibit Non-Stormwater Discharges

As required by the MS4 General Permit, the Town of Old Orchard Beach adopted Chapter 58, Article V. Illicit Discharge Ordinance on December 5, 2006. The purpose of the Ordinance is to provide for the health, safety, and general welfare to the citizens of the Town of Old Orchard Beach through the regulation of non-stormwater discharges to the storm drainage system. The Ordinance prohibits the discharge of non-stormwater into the storm sewer system other than allowable non-stormwater discharges and provides for implementation of appropriate enforcement procedures and actions. The Illicit Discharge Ordinance is available at:

https://library.municode.com/me/old_orchard_beach/codes/code_of_ordinances?nodetid=PTIICOOR_CH58UT_ARTVILDIOR

The following discharges are considered allowable non-stormwater discharges per the Illicit Discharge Ordinance:

- water line flushing or other potable water sources,
- landscape irrigation or lawn watering,
- diverted stream flows,
- rising ground water,
- ground water infiltration to storm drains,
- uncontaminated pumped ground water,
- foundation or footing drains (not including active groundwater dewatering systems),
- crawl space pumps,
- air conditioning condensation,
- springs,
- noncommercial washing of vehicles,
- natural riparian habitat or wet-land flows,
- swimming pools (if dechlorinated-typically less than one PPM chlorine),
- fire-fighting activities,
- and any other water source not containing pollutants.

Additionally, dye testing is an allowable discharge; however, verbal notification to the Department of Public Works is required prior to the time of the test. Refer to Section 58-311 of the Illicit Discharge Ordinance for additional discharge prohibitions. The Director of Public Works is the authorized enforcement authority who is responsible to administer, implement, and enforce the provisions of the Illicit Discharge Ordinance; however, enforcement is accomplished with the assistance of the Code Enforcement Officer.

Water line and hydrant flushing are both identified as non-stormwater discharges; however, as outlined in the Maine DEP's Issue Profile: Drinking Water System Discharges to Regulated Small Municipal Separate Storm Sewer Systems (MS4s) dated November 18, 2016, the Maine DEP has determined certain discharges from a drinking water system have the potential to contribute non-attainment of water quality standards. The issue profile sets forth both the requirements to meet Maine's ambient aquatic life water quality criteria and acute exposure for both fresh and marine waters. Since discharges from a drinking water system through a MS4 is relatively short term, the Maine DEP issue profile indicates the acute criteria should be used for determinations of non-attainment; however,

as a regulatory matter, the Maine DEP has established an analytical reporting limit for total residual chlorine concentration of 50 micrograms per liter (ug/L), which is equal to 0.05 milligrams per liter (mg/L).

The Maine Water Company maintains the potable water system in the Town of Old Orchard Beach and provides an annual report to the Town describing best management practices used during hydrant flushing and testing results.

2.1.1 IDDE Responsible Parties

The Department of Public Works is the lead municipal department responsible for implementing, evaluating, and updating the IDDE Plan with support from the Code Enforcement Officer, Public Safety Department Heads, and consultants. Points of Contact for the IDDE Plan are listed in Table 2-1 and general responsibilities are as follows:

- Public Works Staff: Tracks potential and suspected illicit discharges; assists with outfall inspections, and conducts outfall maintenance, catch basin inspections, and illicit discharge investigations.
- Code Enforcement Officer: Assists with enforcement of the Illicit Discharge Ordinance.
- Public Safety Department Heads (Fire and Police Chiefs): Respond to spills of gasoline and other automotive fluids resulting from vehicle accidents.
- Consultant (CAI Technologies): Assists with mapping updates and management of ArcGIS Online.
- Consultant (Wright-Pierce): Assists with IDDE program development and implementation.

The coordination and data transfer between responsible parties is accomplished through email, phone, and Department Head meetings. Inspection and mapping updates are documented using ArcGIS Online, which are viewable in the Town’s ArcGIS Online Organization.

Table 2-1 IDDE Plan Points of Contact

Name	Position	Contact
Mike Hersey (Primary Contact)	Deputy Director of Public Works	Office: (207) 934-4416 Cell: (207) 502-3992 mhersey@oobmaine.com
Lisa Wilson (Secondary Contact)	DPW Administrative Operations Manager	Office: (207) 934-2250 lwilson@oobmaine.com
Christopher White	DPW Director	Office: (207) 934-4416 Cell: (207) 351-0030 cwhite@oobmaine.com
Dispatch (24/7)		(207) 934-4911
Dimitri Baumann	Code Enforcement Officer	Office: (207) 937-5644 dbaumann@oobmaine.com
Fred LaMontagne,	Fire Chief	Office: (207) 934-7790 x 1201 flamontagne@oobmaine.com
Elise Chard	Police Chief	Office: (207) 934-4911 echard@oobmaine.com
Aaron Weston	CAI Technologies	Office: (603) 761-6241 aweston@cai-tech.com
Christine Rinehart	Wright-Pierce	Office: (207) 798-2784 christine.rinehart@wright-pierce.com

Section 3 Available Resources

3.1 Mapping

The Town of Old Orchard Beach has a GIS database that can be accessed using a hand-held device as well as a desktop computer to aid during infrastructure inspections and investigation. The GIS database includes both the storm and sanitary sewer systems. Updates to the Town's stormwater geodatabase are continually made, as needed, with updates viewable within the Town's ArcGIS Online Organization (separate from the public online viewer). A Stormwater Infrastructure map using layers from the Town's GIS stormwater geodatabase is included as Figure 1 in Attachment 1 as an illustration; ArcGIS Online should be used to view the most current Stormwater Infrastructure map.

3.2 Equipment to Trace Illicit Discharges

The Town of Old Orchard Beach Department of Public Works shares the Tri-Community Camera closed-circuit television (CCTV) truck with the cities of Biddeford and Saco. The CCTV camera truck rotates between the three communities, and the Town of Old Orchard Beach has access to it every 10 weeks for a two-week period. The Department of Public Works has access to a push camera and the ability to conduct dye testing; however, smoke testing is contracted out.

3.3 Emergency Response

In the event of an illicit discharge that results in an emergency or one that is beyond the control and capabilities of the Department of Public Works, the Town would hire an external contractor. Below is the primary contractor available for support:

- Clean Harbors (800) 645-8265 [24-hour Emergency Response]

Section 4 Identification of Priority Area

The 2022 MS4 General Permit requires the IDDE program to have procedures for prioritizing watersheds, which can be used to implement a prioritized dry weather outfall inspection program and address illicit discharges.

The Town identified the Goosefare Brook watershed as its priority watershed for the IDDE program. The prioritization considered the impairment status of the waterbody as well as the land area of the watershed and the percentage of outfalls within the watershed. In general, the Town of Old Orchard Beach focuses dry weather outfall inspections in the priority watershed. Additionally, the Town may use the prioritization for illicit discharge investigations. In the event there were insufficient resources to investigate multiple potential illicit discharges simultaneously, investigation of a potential illicit discharge in the priority watershed would be conducted first.

Goosefare Brook is listed as an Urban Impaired Stream in Maine DEP's Chapter 502: Direct Watershed of Lakes Most at Risk from New Development and Urban Impaired Streams. Additionally, Goosefare Brook is impaired for heavy metals, bacteria, benthic-macroinvertebrates, and stream habitat assessments, and has EPA-approved Total Maximum Daily Loads (TMDL) Reports for metals (Goosefare Brook TMDL, 2003), bacteria (Maine Statewide Bacteria TMDL Addendum, 2014), and impervious cover (Maine Impervious Cover TMDL, 2012). A Watershed-based Management Plan was developed for Goosefare Brook watershed in 2016, and Maine Healthy Beaches has been conducting enhanced monitoring and pollution source tracking within the Goosefare Brook watershed for several years. More information on the water quality and discharges to Goosefare Brook, including work being done within the watershed is described in Section 1.4 of the Town's Stormwater Management Plan (SWMP).

The Goosefare Brook watershed encompasses more than a third of the area of the Town (based on the Town's delineation of the watershed, which includes both the freshwater and tidal portions of the watershed) and has the highest percentage of publicly-owned outfalls within the watershed than any other watershed.

Section 5 Procedures to Detect Illicit Discharges

The Town of Old Orchard Beach will rely on various methods for the detection of illicit discharges including inspections, citizen call-ins, and Town Department reported incidents. The following subsections provide a summary of the various types of detection methods that will be used.

5.1 Dry Weather Outfall Inspections

All MS4 outfalls located within the Urbanized Area will be inspected at least once per permit cycle. Dry weather inspections are a visual inspection of the outfall location.

The Town of Old Orchard Beach has transitioned to digital collection of inspection information. Dry weather outfall inspection will be completed using the ArcGIS Collector App on a hand-held device. A list of the data fields and domains for these inspections is included in Attachment 2. Typically, routine inspections are completed by a consultant, and follow-up and opportunistic inspections are completed by Public Works staff. All consultants or staff conducting inspections will be trained on inspections, documentation, and indicators to observe.

The following guidelines are used during dry weather inspections:

- Inspections are performed during periods of dry weather. Dry weather is defined as a time when:
 - there has been no snow or ice melt for 72 hours or
 - there has been no precipitation greater than a quarter ($\frac{1}{4}$) 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.)

- Inspections are performed in a safe and efficient manner.
- Inspections are typically performed during periods when vegetation is minimal (in spring before leave-out or in autumn after leaves have fallen), such that outfalls can be easily located; however, inspections can be conducted outside of this timeframe.
- Observations include the following at a minimum:
 - Sheen
 - Discoloration
 - Foaming
 - Sanitary Sewage
 - Excessive Algal Growth
 - Odor
- Photographs are typically taken at the time of inspection for documentation purposes.
- Inspections are performed where the Town has safe and legal access to the structure to be inspected.
- Deputy Director of Public Works is informed, if dry weather discharges are observed requiring further inspection or investigations, or if maintenance issues are identified requiring the generation of a work order.

Some indicators may look illicit but may be a result of a natural source. For example, some sheens occur naturally by in-stream processes when an iron bacteria forms a sheet-like film. Organic sheens will break apart when disturbed. Synthetic oil sheens will swirl when disturbed. If the sheen swirls and reforms when disturbed, then the sheen is from an oil source. Another example is foam. Some foams are naturally formed when the surface tension

of water is reduced; natural foam breaks apart easily when disturbed. If the foam has a fragrant odor and does not break apart easily when disturbed, it may indicate the presence of detergents or wash water in the flow.

Inaccessible outfalls or outfalls that do not have safe or legal access will be inspected at the first accessible upstream location within the storm sewer system (e.g., catch basin, manhole, pipe). During the inspection, the immediate area surrounding the outfall will be observed, and photographs of the outfall and anything noteworthy will be taken.

5.1.1 Initial Investigation

When dry weather flows are observed at an outfall, the flow is considered non-stormwater related. This flow could potentially be an illicit discharge, but it may also be a flow generated from an allowable non-stormwater discharge, groundwater, or water from a natural resource (see Section 5.2 for additional considerations). Potential, suspected, or detected illicit discharges will be recorded using the Illicit Discharge Incident Form included in Attachment 3 and logged on the Illicit Discharge Tracking Sheet included in Attachment 4.

If indicators of a potential illicit discharge are observed during an inspection, the following steps will be taken as soon as practicable:

- Look for a potential source in the surrounding area of the discharge.
- Gather as much information on the potential illicit discharge as possible, such as: date, weather (recent rainfall/snowmelt), physical location, description of discharge location, indicators of illicit discharge (odor, appearance, floatables, residual evidence, etc.).
- Report potential illicit discharge to the Department of Public Works Deputy Director, Administrative Operations Manager, or Director.
- Clean up and remove obvious pollution, such as excess sediment, organic debris, sewage or residual products, petroleum/chemical products, or trash/litter as soon as practical to prevent further discharge or exposure of such pollutants.
- Follow up detection with investigation using various inspection techniques, such as visual inspections or dye testing to determine the source of the discharge (see Section 7 Procedures to Investigate Illicit Discharges).
- Remove the illicit discharge through enforcement of Chapter 58, Article V. Illicit Discharge Ordinance, once the source is identified (see Section 8 Procedures to Remove Illicit Discharges).

5.2 Outfall Sampling and Analysis

Outfall sampling and analysis is required under the 2022 MS4 General Permit. Flow observed at an outfall during dry weather, regardless of whether or not it exhibits evidence of an illicit discharge, will be sampled and analyzed.

A Quality Assurance Project Plan (QAPP) has been developed to provide sampling personnel the information that will assist them in collecting samples and using field equipment, test kits, and/or 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 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 results indicate a flowing outfall might be from a natural source. The QAPP is contained in Attachment 5 of this IDDE Plan.

Additionally, for dry weather flows from outfalls that do not exhibit evidence of an illicit discharge and are suspected of being from an allowable non-stormwater discharge, groundwater, or a natural resource, the cause of the flow should be evaluated based on considerations, such as: the time of year (i.e., is it related to high groundwater flows), absence or presence of other indicators (i.e., odor, color, stains, sewage/toilet paper, oil sheen, suds), activities in the surrounding areas that could be contributing the flow (i.e., outdoor car wash, someone draining their pool, hydrant flushing), and presence of contributing flow from a natural resource. The potential cause for the flow should be noted during the inspection. If as-built drawings are available, they should be reviewed to see if they provide information on the potential cause of the flow (i.e., underdrain or foundation drain connections, etc.).

5.3 Catch Basin Inspections

As part of the catch basin inspections and cleaning required under MCM 6, Public Works staff access catch basins for evidence of an illicit discharge and note the presence or evidence of odor, pet waste, foam, sewage, discoloration, algal growth, oil sheen, etc. If Public Works staff observes evidence of an illicit discharge, the evidence is documented as part of the inspection. Catch basin inspections are completed in the field using the ArcGIS Collector App. Information collected during the inspection is outlined in Attachment 2.

5.4 Citizen Call-In and After Hour Calls

The public can report potential, suspected, or detected illicit discharges to the Department of Public Work by calling the Department of Public Works main number at (207) 934-2250 or by visiting the Department of Public Works office during regular business hours. After hours, when calling the Department of Public Works, callers are directed to leave a message or call Dispatch at (207) 934-4911, for emergencies. Dispatch will notify the appropriate party to respond (Public Works, Fire, and/or Police). Potential, suspected, or detected illicit discharges received from the public will be recorded, tracked, and investigated using the Illicit Discharge Incident Form in Attachment 3 and logged on the Illicit Discharge Tracking Sheet in Attachment 4.

5.5 Town Department Reports

Department Heads, including Public Safety (Fire/Police), Code Enforcement, Planning, Wastewater, Recreation, and Town Manager have been notified to report any potential, suspected, or detected illicit discharges observed to the Department of Public Works by calling the information in or completing an Illicit Discharge Incident Form (in Attachment 3). The Town may consider developing a simplified Illicit Discharge Incident Form for use by Department Heads to improve reporting. Town Department reports will be logged by the Department of Public Works on the Illicit Discharge Tracking Sheet (in Attachment 4) and will be investigated by the Department of Public Works, as needed.

The two primary sources of illicit discharge reports from Town Departments, other than Public Works, are likely to come from Fire/Police and Code Enforcement. The most likely type of potential, suspected, or detected illicit discharges reported by the Fire/Police Departments are spills of gasoline and other automotive fluids, such as diesel and oil, resulting from vehicle accidents. When the Fire Department responds to an accident, granular absorbent material, booms, and pads are deployed to clean up a spill to limit the impact, if any, to the storm sewer system.

Code Enforcement may observe or be alerted to various potential, suspected, or detected illicit discharges, including, but not limited to,

- construction site dewatering,
- track-out from constructions sites, and
- pool water discharges.

Erosion and sediment control on construction sites greater than or equal to an acre are inspected and addressed through the construction site inspection program (MCM 4); however, severe construction site dewatering or track-out issues discharging to the Town's storm sewer system and observed by Code Enforcement Officer at smaller sites (less than an acre) will be reported to the Department of Public Works.

Pool discharges that are observed discharging to the street or to the Town's storm sewer system will be reported to the Department of Public Works who will respond onsite. If personnel can smell chlorine in the pool water or if chlorine is detected when using test strips, the property owner will not be allowed to discharge the pool water to the Town's storm sewer system. If the pool discharge is determined to be non-detect for chlorine and discharges are not causing erosion, the discharge will be considered allowable. If dechlorinated pool water is discharged directly to a municipal catch basin, the catch basin must have a sediment level less than 50 percent of the sump volume or be cleaned prior to receiving the non-stormwater discharge.

Section 6 Wet Weather Assessment

The Town will conduct a desktop wet weather analysis intended to assess the potential for illicit discharges during wet weather events, including areas with increased interaction between the storm sewer and sanitary sewer as well as septic systems as a result of increased flows and high-water tables. The wet weather analysis is also intended to prioritize future wet weather monitoring. The 2022 MS4 General Permit does not define a “wet weather event”; however, it is assumed a wet weather event is a storm event of sufficient depth or intensity to produce stormwater discharge from the storm sewer system. To identify catchments with a higher potential for wet-weather induced illicit discharges, the Town will utilize data from existing sources, including (but not limited to):

- Comprehensive Drainage Study for the Town of Old Orchard Beach, Maine (Wright-Pierce, draft January 2018).
- Sanitary sewer systems located in a common trench with stormwater infrastructure, particularly those with known infiltration.
- Subsurface wastewater disposal systems that are 20 years old or more, or those in areas known to have experienced recent malfunctions or failures.
- Municipally-owned dog parks.
- Complaints of sewage odor at a stormwater outfall during wet weather events.
- Direct discharge from the stormwater system to any of the following.
 - Public beach or recreational area.
 - A waterbody impaired for bacteria.
 - A shellfish bed; and/or
 - Drinking water supply.

The outcome of the assessment will be a list of outfalls identified for wet weather monitoring and testing, if applicable, in the next permit cycle and the rationale for including these outfalls.

On or before the expiration of the 2022 MS4 General Permit, the Town will identify outfalls using the assessment and include them in an attachment to this IDDE Plan. The IDDE Plan will also be updated to include procedures for wet weather monitoring based on the EPA New England Bacterial Source Tracking Protocol or other acceptable protocols or methodologies and specify the timing and frequency of wet weather monitoring to be completed during the term of the next permit cycle. If the Town completes the wet weather assessment and includes it within the IDDE Plan prior to the expiration of the 2022 MS4 General Permit, the Town will implement the wet weather monitoring upon completion of the update.

Section 7 Procedures to Investigate Illicit Discharges

Source tracking will be implemented when the source of a suspected or detected illicit discharge cannot be determined from the inspection and initial investigation. Tracing will involve systematic inspections starting at the initial detection location and gradually working upstream within the storm sewer system looking for indicators of the discharge until a potential source is identified or no further evidence is found. Various inspection techniques will be used depending on the type of discharge and whether a potential source has been identified. The primary tracing technique used will be visual inspections (described in Section 7.1.1). If the source of the suspected illicit discharge cannot be identified by visual inspections, the outfall will be coded as follow-up required and the Town will assess further investigation techniques as noted in 7.1.2 and 7.1.3.

7.1 Tracing Techniques

7.1.1 Visual Inspections

Visual inspections will be performed starting at the initial detection location and working “upstream” within the storm sewer system to the first upstream drain manhole or catch basin or further up the municipal roadside ditch, if the outfall is a ditch outfall. Staff will inspect inverts and/or sumps of drain manholes and catch basins or the ditch for indicators that could lead to the source of the discharge such as flow, staining or deposits, oil sheen, scum, foam, odors, etc. Staff will continue to move to the next upstream manhole or catch basin or further up the municipal roadside ditch until a potential source is identified or no further evidence of an illicit discharge is observed. Junction lines entering the storm sewer system at manholes are noted and confirmed on the stormwater map. Depending on the circumstances, including observation of flow or other indicators coming from the junction lines, these lines may also be inspected.

7.1.2 Dye Testing, Smoke Testing, and CCTV Inspections

Dye testing, smoke testing, and CCTV inspection of the storm drain system and laterals will be used to isolate, trace, and locate illicit discharges and connections within the storm drain system. Dye testing is particularly effective in determining direct connection of sanitary service to the storm drain line; however, they rely on being able to obtain permission to access private property. These techniques will be used individually or in combination, depending on the circumstance. Refer to Section 3 Available Resources for additional information on equipment available to the Town for these tracing techniques.

7.1.3 Sandbagging/Damming

Sandbagging/damming of the storm sewer system may be used to determine if discharges are intermittent. Sandbags would be placed and secured at strategic locations within the system to help isolate the source of the discharge by acting as dams trapping dry weather discharges. When placed at junctions, sandbags/dams can help rule out branches of the system and help narrow down the source. Since sandbagging/damming could result in blockage of the stormwater collection system, sandbagging would only be conducted during forecasted dry weather and left in place for a maximum of 48 hours.

Section 8 Procedures to Remove Illicit Discharges

Once the source of an illicit discharge has been identified, the illicit discharge will be reported to the Code Enforcement Officer, who in coordination with the Director of Public Works will initiate the removal process. The Department of Public Works will provide technical information to the Code Enforcement Officer, including any suggestions on how to remediate the illicit discharge, including possible corrections. The removal of the illicit discharge will be accomplished through the enforcement of the Town's Illicit Discharge Ordinance (Chapter 58 Utilities, Article V. Illicit Discharge Ordinance, §§58-306 - 58-317), which is available at:

https://library.municode.com/me/old_orchard_beach/codes/code_of_ordinances?nodetid=PTICOOR_CH58UT_ARTVILDIOR

As part of the removal process, the Code Enforcement Officer and/or the Director of Public Works will determine who is financially responsible for removal of the illicit discharge (i.e., municipality, private property owner, or exempt party).

- If the municipality is responsible, the appropriate municipal authority will be notified, removal will be scheduled, and the necessary repairs or corrections will be made.
- If a private property owner is responsible, the owner will be contacted as described below. No repairs or corrections will be made on private property without the direction of the appropriate municipal authority (Code Enforcement Officer and/or Director of Public Works).
- If an exempt party is responsible, the exempt party will be notified. An example of exempt facilities includes industrial facilities that hold a Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity.
- If the illicit discharge is to the storm drain system located in the Urban Compact Area, the removal of the illicit discharge will be the responsibility of the Town. If an illicit discharge is discovered during a MaineDOT capital improvement project within the Urban Compact Area, the MaineDOT will coordinate with the Town to eliminate the illicit connection as soon as possible.

In the case of an illicit connection, cross connection, or failed connection at a building, the Code Enforcement Officer will first attempt to call the property owner, and if uncooperative or unresponsive, the Code Enforcement Officer will send a notice to the property owner via return receipt requesting that the property owner respond with a solution within 30 days. The Code Enforcement Officer will work with the property owner on any required permitting and will inspect the progress of work. Additional enforcement measures are described in Section 58-316 of the Illicit Discharge Ordinance.

All illicit discharges must be removed or eliminated within 60 days of identification of the source of the illicit discharge. If this is not possible, an expeditious schedule for its elimination will be established and summarized in the MS4 General Permit annual report. Once the removal process is completed, a follow-up inspection will be conducted to confirm that the illicit discharge has been eliminated. Following the removal of an illicit discharge, the IDDE Plan will be evaluated to determine if techniques implemented were efficient and effective.

It should be noted that the Illicit Discharge Ordinance (Section 58-312) allows the authorized enforcement authority to suspend a person's ability to discharge to the MS4 due to emergency situations (an actual or threatened discharge which presents or may present imminent and substantial danger), detection of illicit discharge, or reinstatement of access without prior approval.

Section 9 Interconnections with Other MS4s

9.1 Identification of Interconnections

The Town has identified areas where the Town of Old Orchard Beach's MS4 discharges to another regulated MS4 as shown on Figure 2 MS4 Interconnections in Attachment 1 and described below:

- A small area of ditching along Portland Avenue in Old Orchard Beach discharges to Scarborough's ditch system.
- A small area of ditching on Cascade Road (Route 98) discharges to the ditch system in Saco. Even though it is located outside of Saco's Urban Compact Area; maintenance of Cascade Road (Route 98) was turned over from MaineDOT to Saco several years ago.
- There are a series of catch basins on Ocean Park Road (Route 5) that discharge to a catch basin located at the I-195 merge with Route 5 (just across the Old Orchard Beach town line) owned and maintained by MaineDOT.

The Town of Old Orchard Beach has reviewed incoming contributions to its storm sewer system and does not have any direct interconnections with the Town of Scarborough, the City of Saco, and the Maine Department of Transportation (MaineDOT) where flow from these MS4s would flow directly into the Town of Old Orchard Beach's MS4.

MaineDOT owns drainage structures located on State Aid Roads within the Urban Compact Area; however, the Town is responsible for the maintenance of these structures (except for two catch basins located at the I-195 merge with Route 5: one is the interconnection described above and one is a catch basin with no incoming connection, just an outlet; these two catch basins are maintained by the MaineDOT). The State Aid Roads located within the boundaries of the Urban Compact Area includes Cascade Road, Portland Avenue, East Grand Avenue, West Grand Avenue, Union Avenue, Ocean Park Road, Old Orchard Road, Old Orchard Street, Saco Avenue, and Temple Avenue. Refer to Figure 3 Urban Compact Area Roads in Attachment 1.

9.2 Cooperation With Other MS4s

Since the Town of Old Orchard 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 Town of Old Orchard Beach's infrastructure. The MS4 contacts with which Old Orchard has interconnections are listed in the table below.

Table 9-1 MS4 Interconnection Contacts

Entity	Contact	Email	Phone
Town of Scarborough	Stephen Buckley	sbuckley@scarboroughmaine.org	(207) 730-4407
City of Saco	Joseph Laverriere	jlaverriere@sacomaine.org	(207) 284-6641
	Saco Police Dispatch	Not applicable	(207) 284-4535
Maine Department of Transportation	Peter Newkirk	Peter.Newkirk@maine.gov	(207) 877-5081

If an illicit discharge is identified that has the potential to enter the Town of Scarborough's or City of Saco's MS4 from the Town of Old Orchard Beach, notification will be made first to the Old Orchard Beach Department of Public

Works Deputy Director, Administrative Operations Manager, or Director who will then notify the appropriate entity. If there is an illicit discharge discovered during routine maintenance and/or inspection of catch basins or storm drains located in the Urban Compact Area (refer to Figure 3 in Attachment 1) notification to the MaineDOT is not required; however, if there is potential for a detected illicit discharge to enter MaineDOT's regulated MS4 via an interconnection, MaineDOT should be notified as described above.

Notification letters to interconnected MS4s required as part obtaining coverage under the 2022 MS4 General Permit are included in Appendix C of the Stormwater Management Plan.

Section 10 Procedures to Document Illicit Discharges

Tracking of illicit discharges will be used to document that potential or confirmed illicit discharges are investigated and corrected as well as identify maintenance issues for the MS4 and to help better understand the origins of illicit discharges. Tracking will also be used for annual reporting purposes. The following information will be summarized on the Illicit Discharge Tracking Sheet (an Excel spreadsheet), which is maintained at the Department of Public Works office (refer to Attachment 4). The tracking sheet captures the following information:

- Date of Incident/Date Reported
- Report Initiated By (phone, drop-in, maintenance, inspections, etc.)
- Location of Discharge (outfall number, closest street, nearby landmark, etc.)
- Description of Discharge (dumping, wash water, suds, oil/solvents/chemicals, sewage, etc.)
- Actions to be Taken (who, what where, when, and how – what should be done)
- Description of Resolution (outcome of actions taken and necessary follow up – what was done)
- Date Resolved

Section 11 Records Retention

The Department of Public Works will retain paper and/or electronic files of inspections and investigations for a minimum of three years following the expiration of the MS4 General Permit or longer if requested by the Maine DEP or the U.S. Environmental Protection Agency.

Documentation of illicit or potential illicit discharges will include, as applicable:

- initial and follow-up inspection information,
- illicit discharge incident tracking sheet,
- laboratory reports,
- repairs, corrections, and any other actions required, and
- correspondence with exempt parties or private property owners, including any Notice of Violations and penalties issued.

Section 12 References

Aquarion Engineering Services and Casco Bay Estuary Partnership, 2005. *Guidelines and Standard Operating Procedures for Stormwater Phase II Communities in Maine*. Available at: <http://thinkbluemaine.cumberlandswcd.com/index.php/documents/> (under Minimum Control Measures Resources – 3. Illicit Discharge Detection & Elimination)

Cape Elizabeth, Town of, 2021. *Draft Illicit Discharge Detection and Elimination Plan*.

CWP and Robert Pitt, 2011 *Illicit Discharge Detection and Tracking Guide*. Available at: https://www.riverkeeper.org/wp-content/uploads/2015/03/Center-for-Watershed-Protection_Illicit-Discharge-Tracking-Guide-short.pdf

CWP and Robert Pitt, 2004. *Illicit Discharge Detection and Elimination Manual – A Guidance Manual for Plan Development and Technical Assessments*. October 2004. Available at: https://www3.epa.gov/npdes/pubs/idde_manualwithappendices.pdf

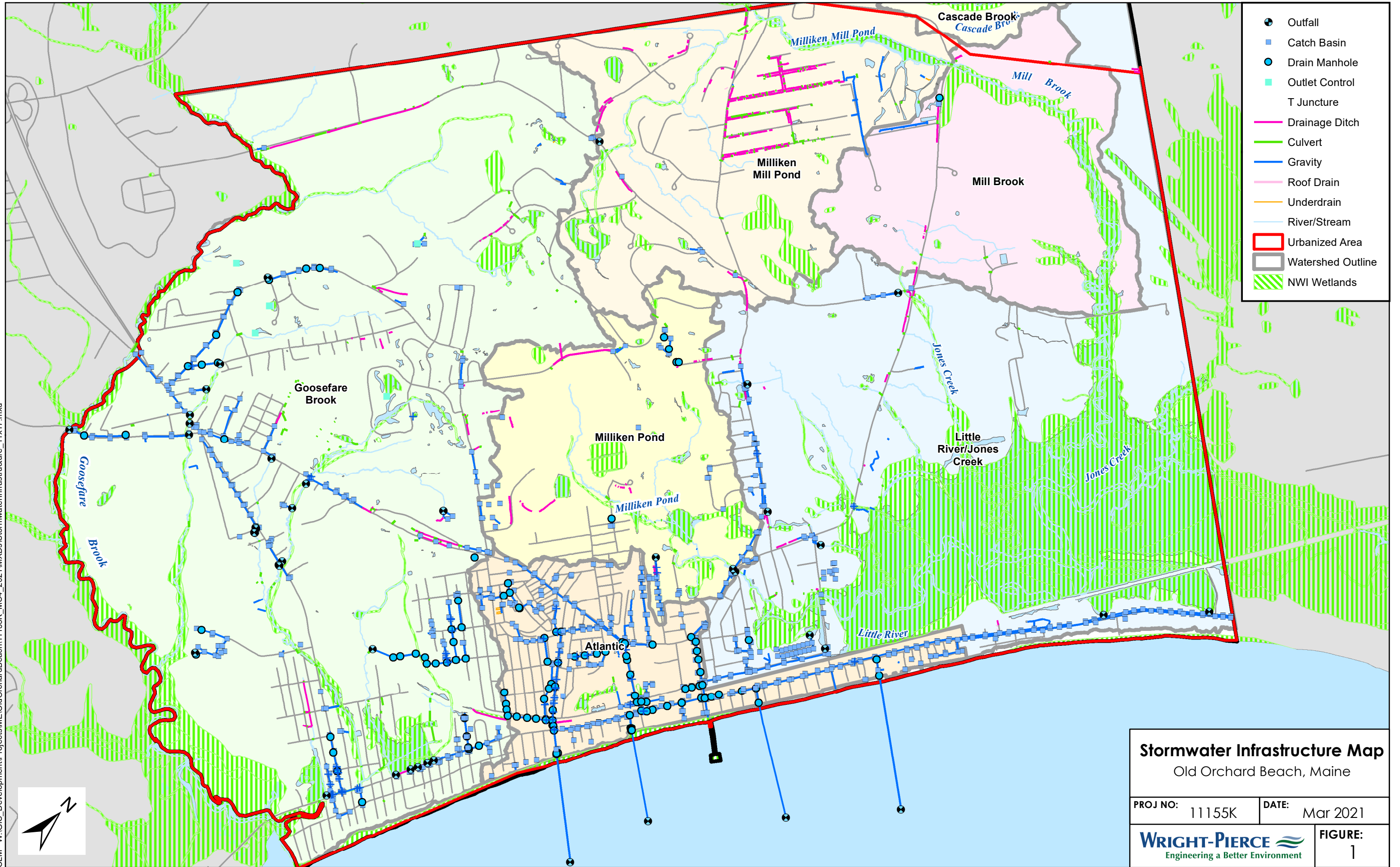
State of Maine Department of Environmental Protection, Bureau of Land and Water Quality, 2020. *General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4), MER041000*. Available at: <https://www.maine.gov/dep/water/wd/ms4/2022-Municipal-MS4-GP.pdf>

USEPA, 2012. *New England Bacterial Source Tracking Protocol*. Available at: <https://www3.epa.gov/region1/npdes/stormwater/ma/2014AppendixI.pdf>



Attachment 1
Figures

CLM_W:\GIS_Development\Projects\ME\OldOrchardBeach\11155K_MSA_2021\MXDs\StormwaterInfrastructure_11x17.mxd



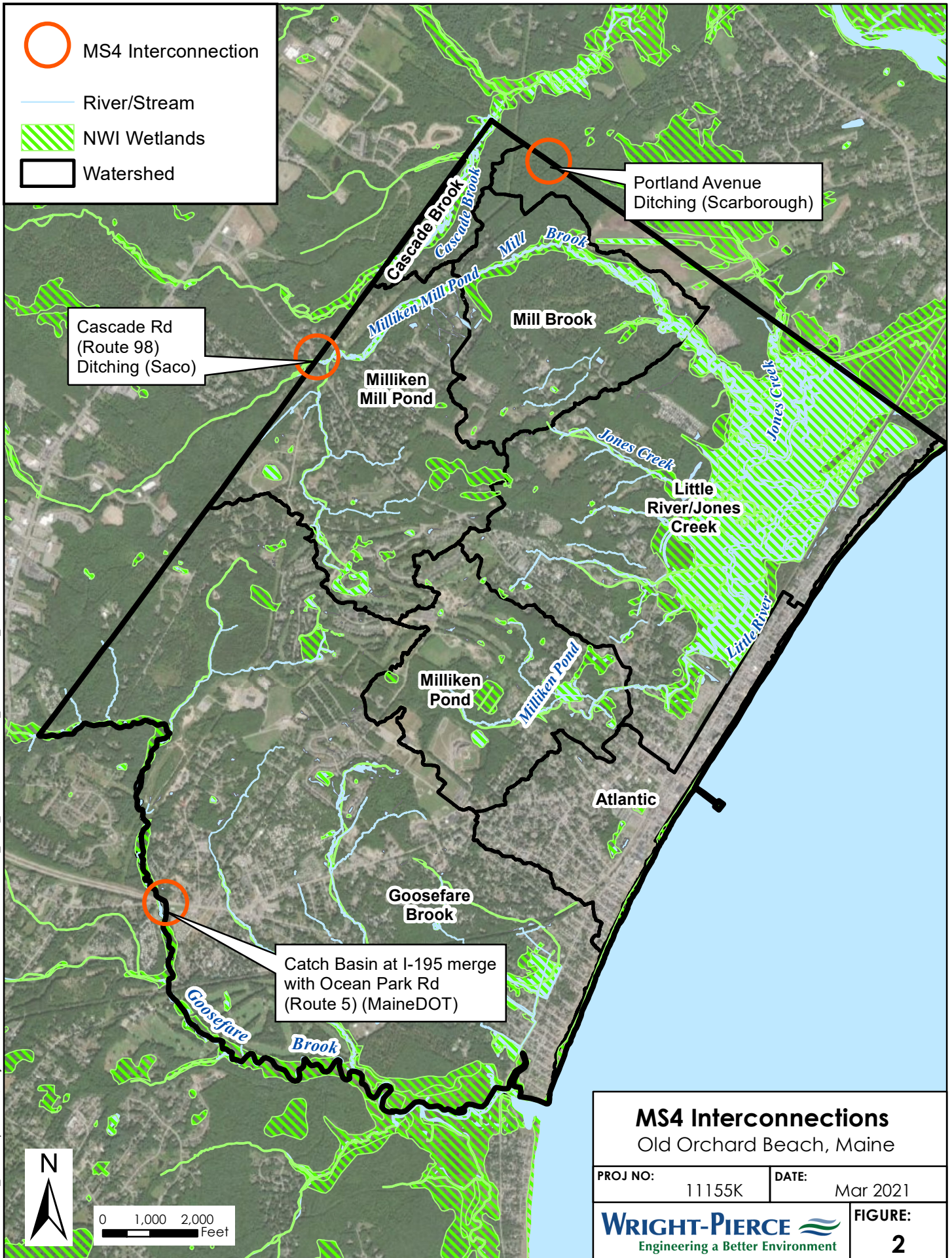
Stormwater Infrastructure Map
Old Orchard Beach, Maine

PROJ NO: 11155K DATE: Mar 2021

WRIGHT-PIERCE 
Engineering a Better Environment

FIGURE:
1

CLM: W:\GIS_Development\Projects\ME\OldOrchardBeach\11155K_MS4_2021\MXDs\MS4_Connections_8x11.mxd








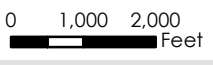
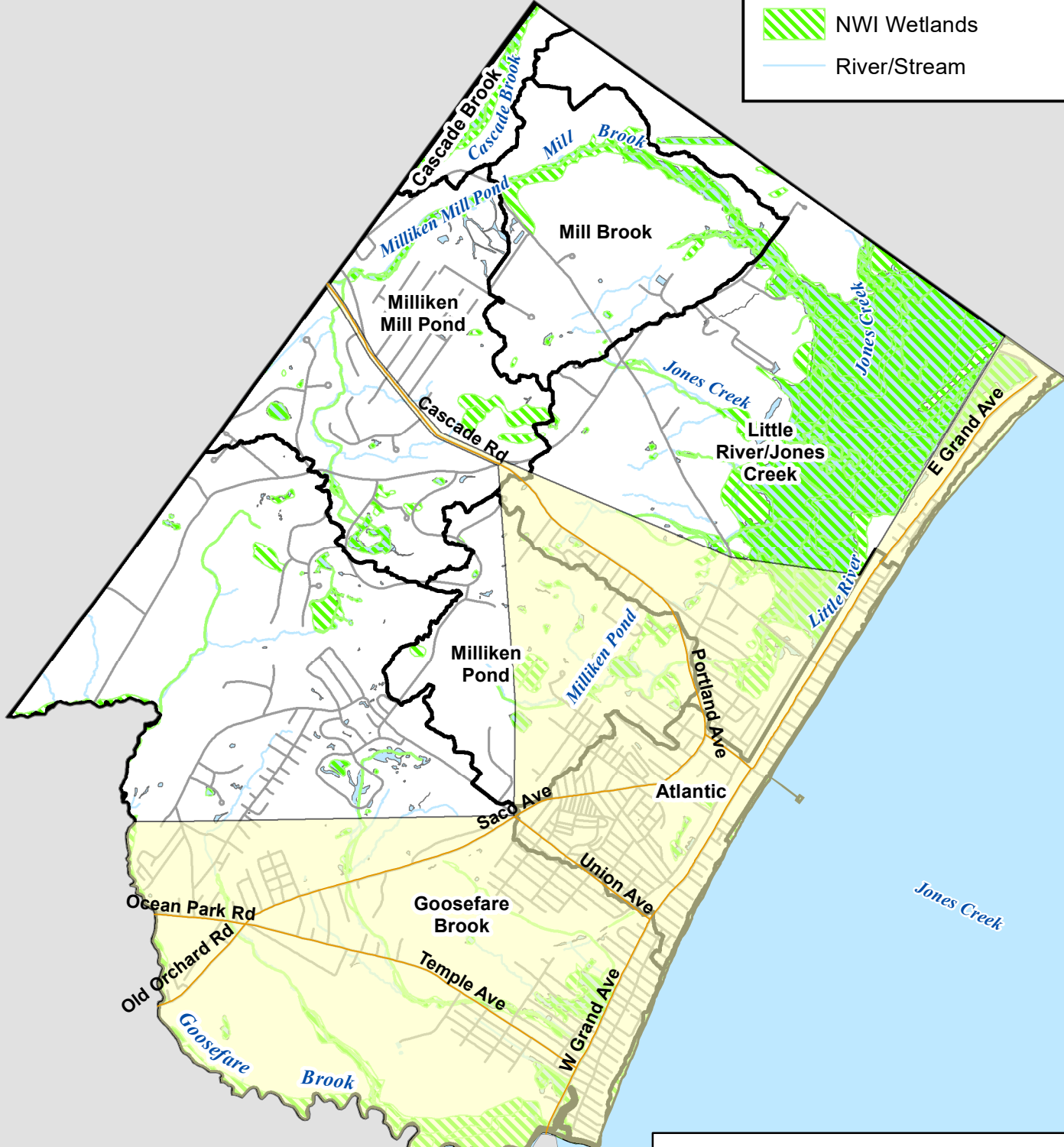
MS4 Interconnections
Old Orchard Beach, Maine

PROJ NO: 11155K DATE: Mar 2021

WRIGHT-PIERCE 
Engineering a Better Environment

FIGURE:
2

-  State Aid Road
-  Urban Compact Area
-  Watershed
-  NWI Wetlands
-  River/Stream



Urban Compact Area Roads	
Old Orchard Beach, Maine	
PROJ NO: 11155K	DATE: Mar 2021
WRIGHT-PIERCE 	
Engineering a Better Environment	
FIGURE: 3	



Attachment 2
Inspection Fields and Domains

Inspection Fields and Domains

The following is a list of fields and domains from the digital ArcGIS Online Collector application that are collected during dry weather outfall inspections and catch basin inspections.

Outfalls

Field	Domain
Outfall ID*	Auto Populated/Linked
Inspection Date	Auto Populated
Inspection Time	Auto Populated
Inspector	Open Text field
Precipitation in Prior 72 Hours	Yes, No
Precipitation in Prior 72 Hours (inches)	Open Text Field
Approximate Air Temperature	Open Text Field
Wind Present	Yes, No
Pipe Submerged	No, Partially, Fully
Pipe Discoloration / Staining	Yes, No
Debris Foam	Yes, No
Debris Oil Sheen	Yes, No
Debris Excessive Algal Growth	Yes, No
Debris Sewer Solids	Yes, No
Odor	None – Natural, Musty, Sewage, Other – See Comments
Water Clarify	Clear, Cloudy, Opaque, No Flow
Pipe Flow	No Flow, Trickle, Steady, ¼ Pipe or More
Seepage Flow	No Flow, Trickle, Steady, ¼ Pipe or More
Flow Color	Clear, Brown, Black, Orange, Green, Tan, Other – See Comments, No Flow
Sediment Condition	Open, ¼ Full, ½ Full, ¾ Full, Plugged
Structure Condition	Excellent, Good, Fair, Poor, Needs Attention
Trash / Litter	Yes, No
Yard Waste	Yes, No

Field	Domain
Smoking Waste	Yes, No
Pet Waste	Yes, No
Follow Up Required	Yes, No
Follow Up Reason	IDDE – See Comments, Maintenance – See Comments, Other – See Comments, N/A
Comments	Open Text Field
Flow Sampled	Yes, No, No Flow
Global ID	Auto Populated

*Unique identifier; includes a leading “OF” for piped outfalls and “DO” for ditch outfalls.

Catch Basins

Field	Domain
Feature ID*	Auto Populated/Linked
Inspected By	Open Text Field
Cleaning Date	Auto Populated
Condition	Excellent, Good, Fair, Poor, Needs Attention, Unknown
Flow	None, Minimal, Significant, Flooded, Normal, Unknown
Excess Sediment	Yes, No, Unknown
Leaves	Yes, No, Unknown
Rocks	Yes, No, Unknown
Odor	Yes, No, Unknown
Pet Waste	Yes, No, Unknown
Foam Soap	Yes, No, Unknown
Sewage	Yes, No, Unknown
Litter	Yes, No, Unknown
Vegetation	Yes, No, Unknown
Oil Sheen	Yes, No, Unknown
Discoloration / Staining	Yes, No, Unknown

Field	Domain
Follow Up	Yes, No, Unknown
Comment	Open Text Field
IDDE Inspection Needed	Yes, No, Unknown
IDDE Reported to DPW	Yes, No, Unknown

* Unique identifier; includes a leading "CB" for catch basins, "DMH" for drain manholes

Attachment 3
Illicit Discharge Incident Form



ILLICIT DISCHARGE INCIDENT FORM

(Modified from: *Illicit Discharge Detection and Elimination-A Guidance Manual for Program Development and Technical Assessments*, CWP, 2004.)

Incident ID:

Responder Information

Call taken by:

Call date:

Call time:

Precipitation (inches) in past 48 hours:

Observer Information

Date and time observed:

Observed during regular maintenance or inspections: Yes No

Citizen call-in: Yes No

Caller contact information (*optional*) or municipal employee information:

Observation Location (*complete one or more below*)

Latitude and longitude:

Stream address or outfall #:

Closest street address:

Nearby landmark:

Primary Location Description

Secondary Location Description:

Stream corridor
(*In or adjacent to stream*)

Outfall

In-stream flow

Along banks

In roadway

Upland area
(*Land not adjacent to stream*)

Near storm drain

Near other water source (stormwater pond, wetland, etc.)
Describe:

Narrative description of location:

Upland Problem Indicator Description

Dumping

Oil/solvents/chemicals

Sewage

Sediment/track out

Wash water, suds, etc.

Other:

Stream Corridor Problem Indicator Description

Odor

None / Natural

Musty

Sulfide (rotten eggs); natural gas

Petroleum (gas)

Sewage / septic

Rancid/Sour

Other: Describe in "Narrative" section

Appearance / Clarity

Clear

Opaque

Cloudy

Other: Describe in "Narrative" section

Floatables

None

Sewage solids (toilet paper, etc.)

Algae / Floating green scum

Foam

Suds

Vegetative mat

Dead fish

Oil Sheen / Film Trash / Debris

Other: Describe in "Narrative" section

Narrative description of problem indicators:

Suspected Source (name, personal or vehicle description, license plate #, address, etc.):

Investigation Notes

Work order number assigned to incident (if applicable):

Initial investigation date:

Investigators:

No Investigation made

Reason:

Reported to different Department/Agency
(including DEP)

Department/Agency:

Notification Date:

Name and contact of Person reported to:

Actions Required:

Investigated: No action necessary

Investigated: Requires Action / Follow Up

Description of actions required:

Description of correction action taken:

Amount of time between the call/discovery and initial investigation (in hours):

Amount of time to investigate incident (in hours):

Date incident resolved/closed:

Notes:

Attachment 4
Illicit Discharge Tracking Sheet



Attachment 5
Quality Assurance Project Plan (QAPP)



STORMWATER MONITORING QUALITY ASSURANCE PROJECT PLAN (QAPP)

1.0 Background and Scope

This Quality Assurance Project Plan (QAPP) was developed based on a template prepared for the Interlocal Stormwater Working Group (ISWG), February 2021.

In Maine, there are 30 municipalities (permittees) regulated by the 2022 Maine General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4 General Permit). The MS4 General Permit requires that the municipalities conduct dry weather inspections on 100 percent of their outfalls during the five-year term of the MS4 General Permit.

Under most conditions, if an outfall is observed to have dry weather flow, monitoring must be conducted to assess whether there is an illicit discharge associated with the flow. (Part IV.C.3.e.vi of the MS4 General Permit contains a few conditions under which flowing outfalls do not need to be monitored.)

The 2022 MS4 General Permit requires sampling and analysis for the following parameters whether or not the outfall's dry weather flow exhibits evidence of an illicit discharge:

- E. coli, enterococci, total fecal coliform or human Bacteroides;
- Ammonia, total residual chlorine, temperature, and conductivity; and
- Optical enhancers or surfactants.

The objective of the monitoring is to collect data that can be used to determine if there is an illicit discharge present in the flow or if the flow is from uncontaminated groundwater, water from a natural resource, or an allowable non-stormwater discharge.

The purpose of this QAPP is to provide sampling personnel information that will assist them in collecting samples and analyzing the samples using field equipment/test strips and/or laboratories in a manner that ensures sufficient accuracy and precision so that sampling personnel and regulators can be confident there is or is not an illicit discharge present in dry weather flow from an outfall. This QAPP provides information on select field equipment/test strips and analytical methods available to use to comply with the requirements for Dry Weather Outfall Monitoring.

Each municipality is required by the MS4 General Permit to prepare a written Illicit Discharge Detection and Elimination (IDDE) Plan. This QAPP has been developed as an attachment to the Town of Old Orchard Beach's IDDE Plan.

Illicit Discharge means any discharge to a regulated MS4 system that is not composed entirely of stormwater other than:

- discharges authorized pursuant to another permit issued pursuant to 38 M.R.S. §413;
- uncontaminated groundwater;
- water from a natural resource [such as a wetland]; or
- other Allowable Non-Stormwater Discharges identified in Part IV(C)(3)(h) of the MS4 General Permit.

2.0 Sampling Procedures

Samples are required to be collected at outfalls that exhibit dry weather flow (defined as flow after there has been no precipitation greater than a quarter (1/4) inch for 72 hours, and no melt water from snow or ice).

Personnel should be prepared to collect samples during any outfall inspection, as dry weather flow is sometimes intermittent, and if personnel need to return to the site later in the same day, or several days later, the dry weather flow may no longer be present.

Samples will be collected aseptically from a flowing source or from dammed water in the outfall pipe, meaning the opening of the sample bottle should not touch the outfall, catch basin or manhole, the sampler's fingers, etc. Samples should not be collected from stagnant water, including water in the sump of a catch basin. A sample pole may be used to aid in sample collection. If a structure is not flowing enough for a sample to be collected aseptically, a sample should not be collected at that time. In the event that an outfall is submerged, either partially or completely, or inaccessible, field staff will proceed to the first accessible upstream catch basin or manhole for the observation and sampling and report the location on the Field Data Collection Sheet or using an ArcGIS Collector App. Field staff will continue to the next upstream structure until there is no longer an influence from the receiving water on the sampling.



This outfall, though in poor condition because it is cantilevered, provides a good opportunity for a clean catch of its discharge.



This outfall is partially submerged and a clean catch of its discharge is not possible. If tidal influences are strong, wait until low tide to sample. Additional options include: sampling upstream structures or using sand bags around the outfall to prevent contamination from backflow.

Table 1 provides a list of equipment that is generally required for dry weather outfall monitoring.

TABLE 1 FIELD EQUIPMENT FOR MONITORING

Equipment	Use/Notes
Clip board and Field Data Collection Sheets or Tablet/Hand-Held Device	For organization of field sheet/writing surface; field sheets for dry weather screening and sampling or tablet/hand-held device for data collection
Chain of Custody Forms	To ensure proper handling of all samples (obtained from laboratory, see Addendum 2 for example)
Non-latex gloves	To protect the sampler as well as the sample from contamination
Distilled water and rinse bottle	For rinsing sampling equipment
Paper towels	For wiping off sampling bottles
Garbage bags	For collecting any trash created
High beam flashlight	For looking in outfalls or manholes
Cooler with ice and thermometer	For transporting samples to the laboratory
Digital camera	For documenting field conditions at time of inspection
Small white board with pen	To document Outfall ID, date, and time in photo
Personal protective equipment	Reflective vest, safety glasses, and boots at a minimum, sun screen, bug spray
Portable handheld meter	For sampling temperature and conductivity
Test strips	For sampling ammonia and chlorine
Sharpies or water-proof pens	For labeling sample containers
Sheet of blank labels	To label sample bottles as needed
Sample bottles	For laboratory samples
Sampling pole	For sampling hard to reach outfalls
Plastic beakers (250 mL) or disposable whirl bags	For sample collection (prior to pouring into sample containers).
Pry bar, pick, hammer, or small mallet	For opening catch basins and manholes when necessary
Sandbags	For damming low flows in order to take samples
Scissors or utility knife	Multiple uses
Measuring tape	Measure distances and depth of flow
Safety cones	Safety
Hand sanitizer	To clean hands
Zip ties/duct tape	For making field repairs
Rubber boots/waders	For accessing shallow streams/wet areas
Sampling pole and/or sampling pump and tubing	For accessing hard to reach outfalls and manholes
Box of 1 gallon plastic bags	Multiple uses, including storing “clean” and “dirty” beakers, storing soaked unbleached cotton pad for optical brightener sample, if used
First aid kit	For minor cuts/abrasions

For each outfall sampled, a Field Data Collection Sheet or ArcGIS Collector App will be used to document the date, time, and location of sample(s) collected, weather conditions, any general observations related to the tests being performed, and results of any parameters analyzed using field equipment or test strips. Note that the Field Data Collection Sheet has a place to document sample observations including odor, color, turbidity, presence of algae, etc. The observations can be documented in this location instead of, or in addition to, the observations made during the normal outfall inspection (which should be conducted in accordance with the MS4's IDDE Plan).

The sample for E.coli or enterococci should be collected first, directly in a sterile bottle provided by the laboratory without rinsing first, and placed on ice. Other samples can be collected in a clean beaker/whirl bag or directly in sample containers. If possible, collect water from the flow directly in the sample bottle. Be careful not to disturb sediments or touch the inside of the sample container. If using laboratory supplied bottles or factory-sealed, disposable whirl bags for sampling, no preparation is needed. If using reused beakers or other device to collect the sample, triple rinse the device with distilled water and then in water to be sampled prior to each use. The same applies to sample vials and the meter probe.

Samples to be taken away from the sampling site for analysis will be labelled with the date, time and sample location as well as the name of the sampler. Example labels are provided in **Addendum 1** along with an example Field Data Collection Sheet.

When using a third-party laboratory for any off-site analysis, sample bottles should be obtained from the laboratory before the sampling event. Coordination with the laboratory is also recommended to ensure that sample hold times and preservation requirements are being met. If samples are being collected on a Friday, some laboratories need prior notice to meet short hold times. Analytical methods, hold times and other pertinent information is described in Section 3 of this QAPP. Laboratory samples are to be accompanied by a chain of custody form as described in Section 5 of this QAPP.

After sampling events, any reusable sample collection containers will be cleaned with soap and water or trisodium phosphate and water. Cleaning will be completed in a location where wash water can be discharged to a licensed wastewater treatment plant, sanitary sewer, or septic system.

3.0 Analyses and Reporting Limits

The MS4 General Permit does not require samples to be analyzed using Clean Water Act (CWA) Methods published in 40 Code of Federal Regulations Chapter 136. The use of field equipment/test strips and laboratories are both allowed. The MS4 General Permit does not require samples to be analyzed by a laboratory that is certified by the Maine DEP. However, this QAPP specifies that when a commercial laboratory is used for a CWA method, it will be certified by the Maine DEP for the CWA method specified. Use of a certified laboratory is specified in this QAPP because the data generated by a certified lab would be more likely to stand up in a court of law than data generated by a non-certified lab. This QAPP does not specify CWA methods or Maine DEP certification for use of field equipment/test strips.

A list of commercial certified laboratories is available on the Maine DEP website at:
<https://www.maine.gov/dhhs/mecdc/environmental-health/dwp/professionals/labCert.shtml> .

Table 2 provides information related to sampling parameters, analysis methods, and sample preservation and holding times that may be used during dry weather outfall monitoring. Analysis methods specified in **Table 2** include CWA methods, field equipment, and test kits, where applicable. Prior to sampling, the sampler and Director or Deputy Director of Public Works will determine what analysis method will be used for parameters with more than one option listed.

User manual(s) for field equipment to be utilized for dry weather monitoring are included as **Addendum 3** to this QAPP. The Town is not proposing the use of test kits, which would require safety data sheets (SDS). The field test strips are non-hazardous and do not require SDSs.

TABLE 2 SAMPLING PARAMETERS, ANALYSIS METHODS, AND SAMPLE PRESERVATION AND HOLDING TIMES

Bacteria - select one or more based on discharge environment	CWA Method, Field Equipment, or Test Kit	Preservation	Holding time	Bottle needed	Notes on Use
E. coli	SM 9223 B (IDEXX Colilert Quanti-Tray) EPA 1603 (membrane filtration, MF) Or SM 9221 B (Most probable number, MPN)	Ice	To lab within 6 hours Analyze within 2 hours of receipt	120 ml or 250 ml plastic sterile bottle with lid from lab	Use for discharges to freshwater (with ammonia and either optical enhancers or surfactants). Preferred method for bacteria for discharges to freshwater.
Enterococcus	SM 9230 B, C or D, (MPN including IDEXX Enterolert, or MF) EPA 1600 (MF)	Ice	To lab within 6 hours Analyze within 2 hours of receipt	120 ml or 250 ml plastic sterile bottle with lid from lab	Use for discharges to salt water (with ammonia and either optical enhancers or surfactants). Preferred method for bacteria for discharges to salt water.
Human Bacteroides ¹	Labs: EMSL (NJ), Microbial Insights (TN) or Source Molecular (FL) Or Dr. Steve Jones, UNH	Ice	To lab within 24 hours Analyze within 48 hours	1000 ml plastic bottle with sodium thiosulfate from lab (with insulated shipping box)	Use for discharges to salt or freshwater (with ammonia and either optical enhancers or surfactants). Not a CWA method, so Maine Laboratory certification not required.
Ammonia (select one method)	CWA Method, Field Equipment, or Test Kit	Preservation	Holding time	Bottle needed	Notes on Use
Ammonia	Hach Ammonia Test Strips	None	Immediate (w/in 15 minutes) in Field	Field jar or beaker	
Total Residual Chlorine (select one method)	CWA Method, Field Equipment, or Test Kit	Preservation	Holding time	Bottle needed	Notes on Use
Chlorine	Industrial test Systems Ultra-Low Total Chlorine Test Strips and other mid-range chlorine test strips	None	Immediate (w/in 15 minutes) in Field	Field jar or beaker	As of 6/2020, USEPA had not used Ultra low chlorine test strips (0.2 to 0.5 mg/L). Informal review shows these should be used simultaneously with a mid-range (0.5 to 10 mg/l) test strips to double check range.
Temperature and Conductivity (use both)	CWA Method, Field Equipment, or Test Kit	Preservation	Holding time	Bottle needed	Notes on Use
Temperature	Temperature/ Conductivity probe	None	Immediate (w/in 15 minutes) in Field	Field jar or beaker	Use to distinguish between groundwater and surface water.
Conductivity	Temperature/ Conductivity probe	None	Immediate (w/in 15 minutes) in Field	Field jar or beaker	Use to distinguish between salt water and fresh water.

TABLE 2 SAMPLING PARAMETERS, ANALYSIS METHODS, AND SAMPLE PRESERVATION AND HOLDING TIMES

Optical Enhancers or Surfactants (select one)	CWA Method, Field Equipment, or Test Kit	Preservation	Holding time	Bottle needed	Notes on Use
Surfactants	SM5540C	Ice	To lab within 24 hours Analyze within 48 hours	500 ml plastic bottle from lab	Works on most soaps (laundry detergent, personal care products, dish soap)
Optical brighteners	VWR handheld UV lamp: UV-A: 360-365 nm, model number 89131-488	None	Analyze within 7 days	Unbleached cotton pad wetted with sample placed in sealed baggie	Works only on water with high to moderate laundry detergent. Provides only presence/absence.
Optical brighteners	Maine Healthy Beaches (MHB) Fluorometer	None	Keep in a dark container, provide to MHB in 1-2 days, analyze within 7 days	Whirl bag or 100 ml plastic bottle.	Provides semi-quantitative numeric fluorescence of sample. Need to provide sample to MHB in bottle or whirl bag (in a box or cooler). One week hold time. Provide advanced notice to coordinate delivery to office. Organic matter or tannins, or color will interfere.
Other Optional Parameters	CWA Method, Field Equipment, or Test Kit	Preservation	Holding time	Bottle needed	Notes on Use
Pharmaceuticals and Personal Care Products (PPCPs) ¹	EPA 1694	Sulfuric Acid (pH <2) + Ice (4°C)	7 day to extraction 40 days after extraction	1000 ml amber jar	EPA Lab Chelmsford can run if capacity. Contact Todd Borci. Otherwise need to use a commercial laboratory. EPA recommends analyzing only for following subset: Caffeine, 1,7-DMX (metabolite of caffeine), Acetaminophen, Carbamazepine (anti-depressant), Primidone (anti-epilepsy drug), Atenolol (high Blood pressure med), Cotinine (metabolite of nicotine), urobilin (by product of hemoglobin breakdowns), Azithromycin (antibiotic)

¹ Parameter is optional and only to be used in select circumstances or locations where more precise confirmation regarding the presence or absence of human sanitary sewage is required. Use of these parameters requires significant advanced coordination with laboratories.

4.0 Quality Control

The following are the reporting limits required by the MS4 General Permit:

- Ammonia: 0.5 mg/L
- Surfactants: 0.25 mg/L
- Total Residual Chlorine: 0.05 mg/L
- E. coli bacteria 4 cfu/100 ml
- Enterococcus 10 cfu/100 ml

To ensure the data collected meets the required reporting limits, the MS4 permittee will use either a Maine Certified Laboratory or one of the field equipment/test strip methods listed in **Table 2** to assess dry weather flow.

Maine Certified Laboratories have standard reporting limits for the parameters that conform to the MS4 General Permit required reporting limits. The test strips listed in **Table 2** have a use range that is appropriate for the work being conducted, and which meets the MS4 required reporting limits. Test strips that have expired will not be used. Test strips and temperature/conductivity probes that have useful life limits will be replaced when they have reached the end of their useful lives.

4.1 Equipment or Rinsate Blanks. Where possible, dedicated equipment and containers are used to collect samples, so that equipment and rinsate blanks are not required to be collected and analyzed.

If equipment or collection containers are being used multiple times in the field for different sample locations during a sampling event, they should be triple rinsed in between samples with distilled water and then rinsed with the water to be sampled, and an equipment or rinsate blank should be collected and assessed to evaluate if there is carryover contamination from reuse of the same sampling equipment. A minimum of one equipment or rinsate blank will be collected per sample event using distilled water. A blank is to be prepared for each laboratory parameter to be analyzed, and are to be handled using procedures identical to those used for the laboratory samples. Refer to the USEPA Volunteer Monitor's Guide to Quality Assurance Project Plans for additional information (EPA Document 841-B-96-003).

5.0 Field Data Sheets and Chain of Custody

As described in Sampling Procedures, a Field Data Collection Sheet or ArcGIS Collector App containing similar information will be used to document sample collection. The Field Data Collection Sheet or ArcGIS Collector App will document the type of field equipment or test strips used and results of any field analysis. An example Field Data Collection Sheet is provided in **Addendum 1** to this QAPP.

Whenever samples will be sent to a laboratory for analysis, a Chain of Custody will be used to document sample collection dates, times, analytical methods requested, and custody of the sample from the time it was collected, until the time it was analyzed. Laboratories typically provide a Chain of Custody with bottle orders. An example Chain of Custody is provided in **Addendum 2** to this QAPP.

6.0 Data Reports

Field Data Collection Sheets or the ArcGIS Collector App attribute table shall constitute data reports for analyses using field equipment or test kits. Whenever samples are sent to a laboratory for analysis, data reports are provided by the laboratory showing the sample location, date and time of collection, results

of the analysis, the reporting limit, the person who conducted the analysis, and the analytical method used.

7.0 Data Review and Follow up

Once all data has been received, it will be reviewed by the Director of Public Works or their designee. Data will be stored electronically or in paper format for at least three years following the expiration date of the MS4 General Permit, as required by the MS4 General Permit.

If the person collecting the sample is the Director or Deputy Director of Public Works, they may opt to have another municipal staff person or third-party review the data. Data should be reviewed within two weeks of receipt, and additional investigations should be scheduled or implemented to identify the source of any potential illicit discharge if any of the thresholds in **Table 3** are exceeded.

TABLE 3 THRESHOLDS FOR ADDITIONAL INVESTIGATION

Parameter	Threshold Level for Additional Investigation	Notes/Discussion
E. coli	236 cfu/100 ml – discharges into freshwater rivers or streams	All classifications of flowing fresh surface water in Maine (AA, A, B and C) have a standard that no more than 10% of the samples may exceed this concentration in any 90 day interval. This is considered an instantaneous level.
E. coli	194 cfu/100 ml – discharges into freshwater ponds	Great Ponds and lakes less than 10 acres have a standard that no more than 10% of the samples may exceed this concentration in any 90 day interval. This is considered an instantaneous level.
Enterococci	54 CFU/100 ml – discharges into saline/estuarine Class SA or SB	These waters have a standard that no more than 10% of the samples may exceed this concentration in any 90 day interval. This is considered an instantaneous level. (Note Maine Healthy Beaches single sample threshold is 104 MPN/100 ml for Coastal Beaches)
Enterococci	94 CFU/100 ml – discharges into saline/estuarine Class SC	These waters have a standard that no more than 10% of the samples may exceed this concentration in any 90 day interval. This is considered an instantaneous level. (Note Maine Healthy Beaches single sample threshold is 104 MPN/100 ml for Coastal Beaches)

Parameter	Threshold Level for Additional Investigation	Notes/Discussion
Human Bacteroides	Any concentration may be indicative of human sewage, but MHB considers 4,200 col/100ml HB to be equivalent to the level of contamination that exceeds the EPA acceptable risk of gastrointestinal illness to swimmers. (Rothenheber and Jones, 2018 and Boehm, Soller and Shanks 2015)	Any concentration of human source of sewage should be investigated.
Ammonia	≥ 0.50 mg/L	Taken from USEPA Draft 2012 Bacteria Source Tracking Protocol.
Chlorine	≥ 0.05 mg/L	Taken from USEPA Draft 2012 Bacteria Source Tracking Protocol.
Surfactants	≥ 0.25 mg/L	Taken from USEPA Draft 2012 Bacteria Source Tracking Protocol.
Optical Brighteners	≥ 100 ug/L) (≥ 0.10 mg/L)	This is used by Maine Healthy Beaches as an actionable threshold. If using a handheld fluorometer, conduct further investigation if presence of optical brighteners is detected

MS4s should use the thresholds listed above and the following general guidance to make determinations whether an outfall requires additional investigation for illicit discharges:

- Outfalls that have some visual evidence of an illicit discharge and exceed at least one of the above thresholds and should be investigated further using techniques described in the IDDE Plan.
- Outfalls that do not have any visual evidence of an illicit discharge but exceed more than one of the above thresholds should be investigated further using techniques described in the IDDE Plan

If the above thresholds are not exceeded, the MS4 may make the determination that the flow is from uncontaminated groundwater, water from a natural resource, or an allowable non-stormwater discharge.

Revisions

1. Original document prepared for 2022 MS4 General Permit Submission to Maine DEP (March 2021)
2. Updated with minor edits and corrections in conjunction with IDDE Plan update (July 2022)

Addenda

1. Example Field Data Collection Sheet and Labels
2. Example Chain of Custody
3. User Manual(s) for Field Equipment

References

Boehm, Soller and Shanks, 2015. *Human-Associated Fecal Quantitative Polymerase Chain reaction. Measurements and Simulated Risk of Gastrointestinal Illness in Recreational Waters Contaminated with Raw Sewage*. Published in Environmental Science and Technology Letters 2015, 2, 270-275.

ISWG and SMSWG February, 2021. *Stormwater Monitoring Program QAPP Template*, February 2021, Revision 1.

Rothenheber and Jones, 2018. *Enterococci Concentrations in a Coastal Ecosystem are a function of fecal source input*. Published in Applied Environmental Microbiology, July 13, 2018.

USEPA, 2012. *EPA New England Bacterial Source Tracking Protocol*, Draft January 2012. Available at: <https://www3.epa.gov/region1/npdes/stormwater/ma/2014AppendixI.pdf>

USEPA, 1996. *Volunteer Monitor's Guide to Quality Assurance Project Plans*, September 1996. EPA Document 841-B-96-003. Available at: https://www.epa.gov/sites/production/files/2015-06/documents/vol_qapp.pdf

Addendum 1
Example Field Data Collection Sheet and Labels

Field Data Collection Sheet for Dry Weather Outfall Monitoring

Date: _____	Outfall ID: _____
Time: _____	Location: _____
Sampler: _____	
Weather: _____	Photos Taken: <input type="checkbox"/> Yes <input type="checkbox"/> No
Temp: _____	Sample Type: _____
	Sample Location: _____

Field Parameters to Monitor

Parameter*	Result (units)	Equipment Used	Comments/Field Notes
Temperature	C or F		
Conductivity	μS		
Ammonia	mg/L		
Optical Brighteners, UV lamp (if used)	Not Present / Present		
Chlorine	mg/l		

Observations (unless already documented as part of outfall inspection: odor, color, clarity, excessive algal growth, etc):

Laboratory Analyses

Parameter*	Method/ Lab Code	Comments/Field Notes
E. coli (for freshwater)	SM 9223 B, EPA 1603,	
Enterococci (for marine/estuarine waters)	SM 9230 or EPA 1600	
Human Bacteriodes (if used)	qPCR	
Optical Brightener (if used)	Maine Healthy Beaches Fluorometer	
Surfactants (if used)	SM 5540C	
PPCPs (if used)	EPA 1694	

* Refer to QAPP for threshold triggering additional investigation

General Comments

This set of labels was designed to be used with Avery 5366 labels, but you can use any labels.

Sampler: _____ Date: _____
Time: _____ Field ID: _____

Sampler: _____ Date: _____
Time: _____ Field ID: _____

Sampler: _____ Date: _____
Time: _____ Field ID: _____

Sampler: _____ Date: _____
Time: _____ Field ID: _____

Sampler: _____ Date: _____
Time: _____ Field ID: _____

Sampler: _____ Date: _____
Time: _____ Field ID: _____

Sampler: _____ Date: _____
Time: _____ Field ID: _____

Sampler: _____ Date: _____
Time: _____ Field ID: _____

Sampler: _____ Date: _____
Time: _____ Field ID: _____

Sampler: _____ Date: _____
Time: _____ Field ID: _____

Sampler: _____ Date: _____
Time: _____ Field ID: _____

Sampler: _____ Date: _____
Time: _____ Field ID: _____

Sampler: _____ Date: _____
Time: _____ Field ID: _____

Sampler: _____ Date: _____
Time: _____ Field ID: _____

Sampler: _____ Date: _____
Time: _____ Field ID: _____

Sampler: _____ Date: _____
Time: _____ Field ID: _____

Sampler: _____ Date: _____
Time: _____ Field ID: _____

Sampler: _____ Date: _____
Time: _____ Field ID: _____

Sampler: _____ Date: _____
Time: _____ Field ID: _____

Sampler: _____ Date: _____
Time: _____ Field ID: _____

Sampler: _____ Date: _____
Time: _____ Field ID: _____

Sampler: _____ Date: _____
Time: _____ Field ID: _____

Sampler: _____ Date: _____
Time: _____ Field ID: _____

Sampler: _____ Date: _____
Time: _____ Field ID: _____

Sampler: _____ Date: _____
Time: _____ Field ID: _____

Sampler: _____ Date: _____
Time: _____ Field ID: _____

Sampler: _____ Date: _____
Time: _____ Field ID: _____

Addendum 2
Example Chain of Custody

Addendum 3
User Manual(s) for Field Equipment

Once field equipment is purchased by the Town, a copy of the user manual(s) will be included here. The user manual(s) will also be kept with the field equipment.



WRIGHT-PIERCE 
Engineering a Better Environment

11 Bowdoin Mill Island, Suite 140
Topsham, ME 04086
207.725.8721 | wright-pierce.com

Appendix F
Construction Site Inspection Forms



3rd PARTY INSPECTION FIELD REPORT (IFR)

Project _____
Contract No. _____ Date: _____
Job Location _____
Owner _____
Design Engineer _____
Contractor: _____
Weather: _____ Temperature _____
Time On-Site _____ Time Leaving Site _____
Requested Inspection _____
Area of Work _____
ESC Inspection Completed: Yes No Site permanently stabilized; temporary ESC removed

Inspection Visitors/Personnel On-site:

Summary of Construction Activities/Comments/Observations:

Erosion and Sediment Control Inspection:

ESC Plan on site: Yes No ESC Log up to date: Yes No
Winter Controls in Place (Nov. 1 – April 15): Yes No
ESC Controls in Place: Stabilized Construction Entrance Silt Fence and/or Wood Waste Berm
 Silt sack / inlet protection Material Storage Areas / Stockpiles
 Other: _____
Track Out Observed: Yes No
Maintenance / Corrective action / Additional ESC needed: Yes* No
*If yes, see Actions Required below.

General Comments (including erosion observed):

Documents Submitted/Reviewed On-Site/Discussed:

Actions Required:

Action Follow-Up (Actions Noted during Previous Inspections):

Action/Deficiency Summary (Observed during previous inspection)	Date Observed	Resolved (Yes/No)	Re-inspection Date(s)	Comments/Corrective Actions taken and/or Additional Observations

Document Tracking:

Date Documents Submitted	Reference Documents	Notes/Revisions
Pre-Construction Documents		
	Primary Contact for Project Communication	
	Contact Information for Construction Team	
	Construction Schedule	
	PDF of Site/Subdivision Plans and Details – <i>Issued for Construction</i>	
	Performance Guarantee and Escrow	
	Copy of Erosion and Sedimentation Control Plan <i>(A copy should be on-site at all times along with contractor logs)</i>	
	Copy of Approved Permits and Order of Conditions	
	Copy of the Post-Construction Management Plan, Signed Maintenance Agreement and List of Post- Construction BMPs in accordance with Ch 71 Requirements	
Construction Documents		
	Clearing and Grubbing	
	Erosion and Sedimentation Control	
	Wastewater Collection System (Sewer) Installation	
	Wastewater Collection System (Sewer) Testing	
	CCTV Inspection of Sewer Infrastructure	
	Storm Drain Installation (Infrastructure)	
	Storm Drain Installation (graded)	
	CCTV Inspection of Storm Drain Infrastructure	
	Stormwater BMPs (inspection by EOR Anticipated)	
	Site Subgrade	
	Aggregate Base Material	
	Aggregate Subbase Material	
	Pavement: Binder	
	Pavement: Surface	
	Loam and Seed/Landscaping	
	Substantial Completion	
	Final Completion	
Construction Documents		
	Erosion and Sedimentation Control Logs	
	ESC, Site Inspections and Field Reports by Engineer- of-Record or Developers Inspection Engineer	
	Stormwater BMP Certification by Engineer-of- Record	
	Roadway: Aggregate Gradation Results	
	Roadway: Compaction Testing Results	
	Roadway: Pavement Mix Design	
	Roadway: Weight-slips	
	Water Main Acceptance Letter from MaineWater	
	Sewer testing results	

Signed By:

Name

Title

Copy To:

Jeffrey Hinderliter, Town Planner, jhinderliter@oobmaine.com

Michael Foster, Associate Planner, mfoster@oobmaine.com

Chris White, Director of Public Works, cwhite@oobmaine.com

Dimitri Baumann, Deputy Code Enforcement Officer, dbaumann@oobmaine.com

Christine Rinehart, Wright-Pierce, christine.rinehart@wright-pierce.com

Jaime Wallace, Wright-Pierce, jaime.wallace@wright-pierce.com

Developer

Contractor

Photos:

TOWN OF OLD ORCHARD BEACH
ANNUAL MS4 EROSION & SEDIMENTATION INSPECTION REPORT
for Construction Sites Equal to or Greater than One Acre

Part 1: General Information			
Project Name:			
Project Location:			
Inspection Date:			
Weather:		Temperature:	
Date & Amount of Last Rainfall:			
Inspector Name/Company:			
Inspector Qualifications:	PE		
Current Status of Project:			

Part II: Documentation		
ESC Plan on site?	<input type="checkbox"/> YES <input type="checkbox"/> NO	
ESC Logs/Self Inspections up to date?	<input type="checkbox"/> YES <input type="checkbox"/> NO	
Photos collected?	<input type="checkbox"/> YES <input type="checkbox"/> NO	
Previous Third-Party Reports reviewed?	<input type="checkbox"/> YES <input type="checkbox"/> NO	
Note any outstanding issues from previous inspection reports below and comments.		
		Fixed? <input type="checkbox"/> YES <input type="checkbox"/> NO
		Fixed? <input type="checkbox"/> YES <input type="checkbox"/> NO
		Fixed? <input type="checkbox"/> YES <input type="checkbox"/> NO
		Fixed? <input type="checkbox"/> YES <input type="checkbox"/> NO

Part III: Actions Required from Inspection		
Corrections/Actions Required	Resolved?	Compliance Tracking/Deadlines
	<input type="checkbox"/> YES <input type="checkbox"/> NO	
	<input type="checkbox"/> YES <input type="checkbox"/> NO	
	<input type="checkbox"/> YES <input type="checkbox"/> NO	
	<input type="checkbox"/> YES <input type="checkbox"/> NO	
	<input type="checkbox"/> YES <input type="checkbox"/> NO	
	<input type="checkbox"/> YES <input type="checkbox"/> NO	

TOWN OF OLD ORCHARD BEACH
 ANNUAL MS4 EROSION & SEDIMENTATION INSPECTION REPORT
 for Construction Sites Equal to or Greater than One Acre

Inspection Parameter	Inspection Results	Observations/Notes
Part IV: Overall Site BMPs		
Disturbed Areas Minimized	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Natural Buffers Protected	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Perimeter Controls in Place	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Stabilized Construction Entrance	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Track Out Observed	<input type="checkbox"/> YES <input type="checkbox"/> NO	
Dust Control	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Dewatering Areas	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Good Housekeeping/Waste Management	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Part V: Erosion Controls/Sediment Barriers		
Types of ESCs used at Site:	<input type="checkbox"/> Wood Waste Berm <input type="checkbox"/> Silt Fence <input type="checkbox"/> Hay Bales <input type="checkbox"/> Silt Sock <input type="checkbox"/> Other:	
ESCs downgradient of disturbed areas	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
ESCs adjacent to drainage channels	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
ESCs downgradient of material stockpiles	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
ESCs adjacent to lot construction	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Storm drain inlet protection	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Part VI: Temporary Site Stabilization		
Disturbed but inactive area stabilized w/ mulch or non-eroding cover	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
No evidence of washing/rilling of topsoil	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Seeded areas protected with mulch or erosion control blanket	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	

TOWN OF OLD ORCHARD BEACH
 ANNUAL MS4 EROSION & SEDIMENTATION INSPECTION REPORT
 for Construction Sites Equal to or Greater than One Acre

Part VII: Permanent Site Stabilization		
90% cover of healthy vegetation established on vegetated areas	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Mulched landscape areas totally covered with approved mulch materials	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Riprap appears stable, well graded and functioning	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Soil adjacent to riprap areas appears stable	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Areas adjacent to roadways and parking lots stable?	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Runoff appears to be evenly distributed to buffers (no evidence of channelization)	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Catch basin(s) are capturing runoff without bypass to other areas	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Part VIII: Ditches, Channels, Swales		
Channel is clear of obstructions, sediment or debris	<input type="checkbox"/> YES <input type="checkbox"/> NO	
Ditch Line	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Side Slopes	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Riprap Areas	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Vegetation in ditch line and side slopes	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Check Dams	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Part IX: Culverts		
No evidence of overtopping or flooding	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Culvert Outlet – Clear of debris, no erosion	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Culvert Inlet – Clear of debris, no erosion	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Apron and plunge pools	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	

TOWN OF OLD ORCHARD BEACH
ANNUAL MS4 EROSION & SEDIMENTATION INSPECTION REPORT
for Construction Sites Equal to or Greater than One Acre

Part X: Stormwater BMPs		
Stormwater BMPs constructed and receiving runoff	<input type="checkbox"/> YES <input type="checkbox"/> NO	
Stormwater BMPs Used at Site:		
Embankments inspected for settlement, slope erosion, piping or slumping.	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Stormwater Inlets	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Trash rack and debris guards	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Sediment Forebays	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Outlet control structures	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Riprap Areas	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Level-lip Spreaders	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Proprietary Devices	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Part IV - Winter Stabilization (November 1 – April 15)		
Hay mulch is applied at 2x standard application rate	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Areas brought to final grade are stabilized each day	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	
Areas w/in 75' of protected natural resource must double row of barriers	<input type="checkbox"/> MR <input type="checkbox"/> Pass <input type="checkbox"/> Fail <input type="checkbox"/> NA	

Inspection Results:

MR = Maintenance Required (BMP functioning by needs attention),

Pass = BMP is functioning and no deficiencies noted during visual inspection,

Fail = BMP does not appear to be functioning during visual inspection and needs further evaluation, repair or replacement.

NA = Not Applicable

Appendix G
Duly Authorized Representative



Old Orchard Beach MAINE

July 8, 2022

LETTER/MEMO TO FILE

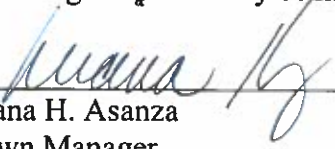
Re: Written Authorization for "Duly Authorized Representative"

This document serves to affirm that the Director of Public Works has responsibility for the overall operation of the Old Orchard Beach Public Works Garage and Sand/Salt Facility, and is hereby designated as authorized persons for signing the Stormwater Pollution Prevention Plan (SWPPP) and any other information related to the implementation of the SWPPP as required by the Maine Pollutant Discharge Elimination System (MEPDES) General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer System (MS4) (effective July 1, 2022).

By signing this authorization, I confirm that I meet the following requirements to make such a designation as set forth in 06-096 CMR 521(5)(a)(3) [Department of Environmental Protection Rule, Chapter 521: Applications for Waste Discharge Licenses, Section 5. Signatories to permit applications and reports].

For a municipality, State, Federal, or other public agency. By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes: (i) The chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

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


Diana H. Asanza
Town Manager


Date

Office of the Town Manager | One Portland Avenue | Old Orchard Beach, Maine 04064

Phone: (207) 937-5626 | Fax: (207) 934-0755 | dasanza@oobmaine.com



11 Bowdoin Mill Island, Suite 140
Topsham, ME 04086
207.725.8721 | wright-pierce.com