



STORMWATER MANAGEMENT PLAN

FOR

**CITY OF LEWISTON, MAINE
MER041012**

**MARCH 2021
JN: 10336.009.2020**

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MER041012**

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SECTION 1 | INTRODUCTION

Section 1.1 Overview of Regulatory Program

The General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (General Permit; **Appendix C**) was issued by the Maine Department of Environmental Protection (MDEP) on October 15, 2020.¹ The General Permit was issued pursuant to 38 M.R.S.A. § 413 and authorizes the direct discharge of stormwater from, or associated with, a regulated small municipal separate storm sewer system (MS4) to waters of the State other than groundwater. Such discharges must meet the requirements of the General Permit, permittee specific MDEP Order(s), and applicable provisions of Maine waste discharge and water classification statutes and rules.

1.1.1 Stormwater Management Plan

The General Permit requires regulated MS4s to develop, implement, and enforce a Stormwater Management Plan (Plan) that puts into practice the six minimum control measures (MCMs) set forth in Part IV, Section C of the General Permit (**Section 4**). Each MCM is designed to reduce the discharge of pollutants within the urbanized area (UA) of a regulated small MS4 to the maximum extent practicable, such as to protect water quality. For each MCM, the Plan must define specific best management practices (BMPs), designate responsibility for each BMP, define a timeline for implementation of each BMP, and define measurable goals for each BMP. The Plan must be updated within 60 days of permit authorization to include how the permittee will meet all requirements of the MDEP Order for the MS4.

The Plan and all minimum MCMs, as defined in **Section 4**, must be implemented by the effective date of the General Permit. The General Permit becomes effective July 1, 2022.

1.1.2 Sharing Responsibility

The General Permit requires regulated MS4s to identify interconnections within the MS4 and find ways to cooperate with any such other regulated or non-regulated entities. Where a portion of the separate storm sewer system within a municipality is owned, operated, or otherwise the responsibility of another regulated small MS4, the regulated MS4 must provide a clear description of respective responsibilities included in the Plan. If the regulated MS4 relies on a third party to implement one or more BMP, the regulated MS4 shall note that fact in its Plan and Annual Compliance Report (**Section 1.1.3**). If the third party fails to implement the measure, the regulated MS4 remains responsible for its implementation.

¹ On January 12, 2001, the MDEP received authorization to administer the Federal National Pollutant Discharge Elimination System ("NPDES") program within the State of Maine. The NPDES program was created by the Clean Water Act in 1972 to improve water quality by regulating point source discharges into waters of the United States. The MDEP implements the NPDES program through the Maine Pollutant Discharge Elimination System ("MEPDES") program. The General Permit is part of the MEPDES program.

1.1.3 Record Keeping and Annual Reporting

The regulated MS4 shall keep records required by the General Permit for at least three years following its expiration or longer if requested by the MDEP or Environmental Protection Agency (EPA).

By September 15 of each year, the regulated MS4 must electronically submit an annual compliance report to the MDEP for review and approval.²

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The annual compliance report must include the following:

1. The status of compliance with the terms and conditions of the General Permit and MS4 specific MDEP Order based on the implementation of the Plan, an assessment of the effectiveness of the components of the stormwater management program, an assessment of the appropriateness of identified BMPs, progress toward achieving identified measurable goals for each MCM, and progress toward achieving the goal of reducing the discharge of pollutants from the MS4.
2. A summary of information collected and analyzed, including monitoring data, if any, during the reporting period.
3. A summary of the stormwater activities the permittee intends to undertake pursuant to its Plan to comply with the terms and conditions of the General Permit and permittee specific MDEP Order during the subsequent reporting cycle.
4. A change in any identified BMPs or measurable goals that apply to the Plan.
5. A summary describing the activities, progress, and accomplishments for each MCM, 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, any sanitary sewer overflows, 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 MS4 good housekeeping/pollution prevention program including the percentage of catch basins cleaned, those catch basins cleaned multiple times, the number of catch basins that could not be evaluated for structural condition in a safe manner, etc. Where applicable, the MS4 must quantify steps, measures, and activities taken to

² Standardized Annual Compliance Report forms will be provided by the MDEP or the regulated MS4 may submit an alternative form to the MDEP for review and approval.

comply with the 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 the training content delivered as well as any revisions to SWPPP procedures, as relevant, and/or changes in municipal operations.

Changes to the annual compliance report based on MDEP review comments must be submitted to the MDEP within 60 days of the receipt of the comments.

Section 1.2 Plan Availability

The regulated MS4 must maintain a signed copy of its Stormwater Management Plan at the municipal office and on the official municipal website. The regulated MS4 will make records, including its Plan, available to the EPA, MDEP, operator of any identified interconnected MS4s, downstream public water supply companies, and the public during regular business hours.

Section 1.3 Keeping Plans Current

The regulated MS4 must maintain its Stormwater Management Plan as current and amend it if actions required by BMPs fail to control pollutants to meet the terms and conditions of the General Permit and permittee specific MDEP Order, the BMPs do not prevent the potential for a significant contribution of pollutants to waters of the State other than groundwater, and/or new information results in a shift in the Plan priorities. The City will provide the public with the opportunity to comment on any changes made to the Plan a minimum of once per year.

In previous Permit terms, the City of Lewiston was covered under the Androscoggin Valley Stormwater Working Group (AVSWG) Stormwater Management Plan. This Stormwater Management Plan has been established as a stand-alone Plan to address City-specific alignment with the requirements of the General Permit.

SECTION 2 | REGULATED MS4 INFORMATION

Section 2.1 Municipality Background

The City of Lewiston (City) is in Androscoggin County, Maine on the Androscoggin River. The City discharges stormwater into the Androscoggin River, Hart (Dill) Brook, Stetson Brook, No Name Brook, and several unnamed tributaries and streams. Stormwater discharged into these rivers/streams/brooks/tributaries is received by No Name Pond, Garcelon Bog.

According to the 2010 US Census, the City contains approximately 17.77 square miles of urbanized area and has a population of approximately 36,592 persons.

Section 2.2 Location Map

A Location Map and Urbanized Area Map for the City are included in **Appendix A**. The Urbanized Area Map was developed based on 2010 Census Urban Area Reference Map information and is also included in **Appendix A**.

SECTION 3 | PLANNING AND ORGANIZATION

Section 3.1 Plan Management

The City of Lewiston Public Works Department (PWD) has primary responsibility for implementation of this Plan. The Project Engineer (PWD), Mr. John Kuchinski, PE, has primary cognizance over ensuring compliance with the MS4 General Permit. Mr. Kuchinski is supported by other City staff, as specified in this Plan, and the City's MS4 consultant (Andrea Dickinson, Haley Ward).

Section 3.2 Regional Collaboration

The City is a member of the Androscoggin Valley Stormwater Working Group (AVSWG). The AVSWG consists of regulated MS4s in the Androscoggin Valley. The regulated municipalities and facilities in the Androscoggin Valley UA utilize this collaborative approach to facilitate compliance with MCM 1 Education and Outreach requirements, and MCM 2 Public Involvement and Participation requirements of the General Permit.

The City and AVSWG will collaborate with the Interlocal Stormwater Working Group (ISWG) to facilitate compliance with MCM 1 Education and Outreach requirements. ISWG is a coalition of 14 municipalities and two MS4 communities in the Greater Portland and Saco areas that works together to address stormwater pollutants.

Section 3.3 MS4 Interconnections

Portions of the City separate storm sewer system are owned and operated by other regulated small MS4 entities. These other entities include the Maine Turnpike Authority and Maine Department of Transportation. Each regulated MS4 is responsible for the development and implementation of a Stormwater Management Plan. If an illicit discharge is detected from an outfall near an interface between two of the storm sewer systems, the two entities responsible for each storm sewer system will coordinate efforts to detect and eliminate the cause of the illicit discharge.

Section 3.4 Existing Environmental Plans

The City has the following existing environmental plans (that are not otherwise discussed in this Plan) that indirectly or directly support the reduction of the discharge of pollutants within the UA to the maximum extent practicable.

- Hazardous Waste Management Plan
- Emergency Preparedness and Prevention Procedures Plan
- Hart Brook Watershed Management Plan

SECTION 4 | MINIMUM CONTROL MEASURES

The following six minimum control measures (MCMs) are based on the requirements set forth in Part IV.C. of the MDEP General Permit. For each MCM, BMPs are defined, responsible parties for BMP implementation are listed, and measurable goals and timelines for implementation are discussed. The six MCMs required by the MS4 General Permit and addressed in this plan include:

1. Education/Outreach Program
2. Public Involvement and Participation
3. Illicit Discharge Detection and Elimination 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

Section 4.1 MCM 1: Education/Outreach Program

In accordance with the General Permit, the regulated MS4 must develop and implement an ongoing Education/Outreach Program that addresses the stormwater discharges and the impacts thereof on waterbodies, identifies steps that can be taken to reduce pollutants in stormwater runoff, and is designed to address stormwater issues of significance. The ultimate objective of the program is to change the behavior of target audiences so that pollutants in stormwater are reduced. The program is required to:

- Be defined in the Plan and implemented over the term of the General Permit.
- Define target audiences, specific messages, message delivery/distribution tools, evaluation methods, and an implementation schedule for each target audience.
- Define the awareness and behavior change goals and identify the party or parties responsible for program implementation.
- Identify methods to evaluate the effectiveness of each awareness and behavior change campaign.³

The regulated MS4 may partner with other MS4s, community groups, or watershed associations to implement the Education/Outreach Program, which is required to minimally include:

- An Outreach to Raise Awareness Campaign⁴ of stormwater pollution issues targeted at the public and one of a municipal, commercial, development/construction, or institutional audience. This campaign must implement a minimum of two awareness campaigns during the permit term – one targeted at the public and another targeted at one of the audiences identified above.

³ Any message or delivery mechanism found to be ineffective or of unsatisfactory efficacy must be modified accordingly.

⁴ Outreach to raise awareness means to introduce information that may be new to or not well understood by the target audience.

Each campaign must be delivered using a minimum of three outreach tools per year.

- An Outreach to Change Behavior Campaign⁵ to reduce pollutants in stormwater. This campaign is required to promote a minimum of one behavior change per permit term, be directed to two audiences annually, and use a minimum of three different outreach tools per year.

The City will develop and/or collaborate with the AVSWG and ISWG to develop the necessary outreach campaign plans required by this MCM. These plans include the following:

- Stormwater Awareness Plan (**BMP 1A**)
- Municipal Chloride Awareness Plan (**BMP 1B**)
- Yardscaping Behavior Change Plan (**BMP 1C**)

The MCM 1 Education/Outreach Programs will be implemented as detailed below.

BMP 1A Implement an Outreach to Raise Awareness Campaign to Raise General Public Awareness

The City will collaborate with the AVSWG and ISWG to raise public awareness of stormwater issues in accordance with Part IV (C)(1) of the General Permit. This will implement one of the two required awareness campaigns required per permit term and be implemented using a minimum of three outreach tools per year. A copy of the Stormwater Awareness Plan is included as **Appendix D**.

The Stormwater Awareness Plan indicates that the Think Blue Maine campaign will be used to raise public awareness within a target audience using a variety of education and outreach tools. The City will collaborate with the AVSWG and ISWG to annually focus on the use of posters, social media posts, and social media advertisements as the three outreach tools to meet public awareness campaign requirements. However, the City may decide to make use of any combination of three of the tools identified in the ISWG Stormwater Awareness Plan, as deemed by the City to be necessary and/or appropriate.

Measurable Goals

1. The Stormwater Awareness Plan will be submitted to the MDEP for review and approval by March 31, 2021.
2. The City will collaborate with the AVSWG and ISWG will implement the Stormwater Awareness Plan starting with the effective date of the General Permit, or as otherwise communicated by the MDEP.
3. The City will rely on the results of a 2018 Statewide Stormwater Awareness survey conducted by ISWG to meet baseline evaluation requirements of the General Permit, unless otherwise communicated by the MDEP.

⁵ Outreach to Change Behavior means to promote and reinforce desirable behaviors designed to reduce storm water pollution.

4. The City will collaborate with the AVSWG and ISWG to implement the public awareness campaign beginning in Permit Year (PY) 1, or as otherwise communicated by the MDEP.
5. The City will collaborate with the AVSWG and ISWG to implement an evaluation to assess the overall effectiveness of the outreach program in PY5.
6. In each Annual Report (**Section 1.1.3**), the City will provide Stormwater Awareness Campaign messages; the methods of campaign distribution; the outreach tools used, the measures/methods used to determine the on-going effectiveness of the campaign, and any changes planned based on the measures of effectiveness.

Responsible Parties

AVSWG – Executive Committee

ISWG – Executive Committee

John Kuchinski – City Project Engineer

BMP 1B Implement an Outreach to Raise Awareness Campaign to Raise Institutional Awareness

The City will implement a Municipal Chloride Awareness Plan to raise awareness of this issue in accordance with the requirements of Part IV (C)(1) of the General Permit. The Municipal Chloride Awareness Plan will raise awareness for municipal staff including municipal employees, volunteers, council members, and other elected officials; implement one of the two required awareness campaigns required per permit term; and be implemented using a minimum of three outreach tools per year. A copy of the Municipal Chloride Awareness Plan is included in **Appendix E**.

Measurable Goals

1. The City will submit the Chloride Awareness Plan to the MDEP for review and approval by March 31, 2021.
2. Starting in PY1, or as otherwise communicated by the MDEP, the City will begin implementation of the Chloride Awareness Plan.
3. Prior to the onset of the campaign in PY1, or as otherwise communicated by the MDEP, the City will conduct a baseline evaluation that is relevant and appropriate to the campaign objectives.
4. In PY5, the City will conduct an evaluation to assess the overall effectiveness of the outreach program.
5. In each Annual Report (**Section 1.1.3**), the City will provide Chloride Awareness Campaign messages; the methods of campaign distribution; the outreach tools used, the measures/methods used to determine the on-going effectiveness of the campaign, and any changes planned based on the measures of effectiveness.

Responsible Party

John Kuchinski – City Project Engineer

BMP 1C Implement an Outreach to Change Behavior Campaign

The City will collaborate with the AVSWG to implement a Yardscaping Behavior Change Plan in accordance with the requirements of Part IV (C)(1) of the General Permit to reduce pesticide, fertilizer, and water use. The Yardscaping Behavior Change Plan will target the public and municipal staff; implement the two required awareness campaigns required per permit term; and be implemented using a minimum of three outreach tools per year. A copy of the Yardscaping Behavior Change Plan is included in **Appendix F**.

Measurable Goals

1. The City will submit the Yardscaping Behavior Change Plan to the MDEP for review and approval by March 31, 2021.
2. Starting with the effective date of the General Permit, or as otherwise communicated by the MDEP, the City will collaborate with AVSWG to begin implementation of the Yardscaping Behavior Change Plan.
3. The City will rely on the results of an evaluation conducted by Bates College during the previous permit cycle to meet baseline evaluation requirements of the General Permit, unless otherwise communicated by the MDEP.
4. In PY5, the City will collaborate with AVSWG to conduct an evaluation to assess the overall effectiveness of the outreach program.
5. In each Annual Report (**Section 1.1.3**), the City will provide Yardscaping Behavior Change Plan messages; the methods of campaign distribution; the outreach tools used, the measures/methods used to determine the on-going effectiveness of the campaign, and any changes planned based on the measures of effectiveness.

Responsible Party

John Kuchinski – City Project Engineer

Section 4.2 MCM 2: Public Involvement and Participation

In accordance with the General Permit, regulated MS4s must involve the public in both the planning and implementation process of improving water quality and reducing stormwater quantity. This will enable the regulated MS4 to benefit from valuable public input, expertise, and assistance, and increase public support through active engagement. The regulated MS4 is specifically required to:

- Comply with applicable State and local public notice requirements using effective mechanisms and comply with the public notice requirements of the Maine Freedom of Access Act, 1 M.R.S. §§ 401 et seq. (“FOAA”) when the permittee involves stakeholders in the implementation of this General Permit. All related public meetings and attendance must be documented in the Annual Report (**Section 1.1.3**).
- Annually host, conduct, or participate in a public event. The event must include a pollution prevention and/or water quality theme. The target audience does not need to be the entire urbanized area but should be aimed at a segment of the population that the permittee wishes to reach.

The MCM 2 Public Involvement and Participation requirements will be implemented as detailed below.

BMP 2A Public Notice

In accordance with Part IV (C)(2) of the General Permit, the City will comply with State and local public notice requirements when the City involves stakeholders in the implementation of the General Permit. According to the AVSWG Stormwater Management Plan, the AVSWG will post meeting notices and agendas as well as opportunities for stakeholder involvement. AVSWG meetings are open to the public, and interested stakeholders are encouraged to participate.

Measurable Goal

During each permit year, the City will continue to comply with State and local public notice requirements.

Responsible Party

John Kuchinski – City Project Engineer

BMP 2B Public Event

In accordance with the requirements of Part IV (C)(2) of the General Permit, the City will participate in an annual public event. For example, the AVSWG has historically participated in an annual River Cleanup event hosted by the Androscoggin Land Trust, which generally presents stormwater educational materials to attendees and demonstrates stormwater pollution through the use of a watershed model presentation.

Measurable Goals

1. The City will collaborate with the AVSWG and/or Androscoggin Land Trust to host, conduct, or participate in at least one public event each year.
2. The City will provide a list of the annual event hosted, conducted, and/or attended in each Annual Report (**Section 1.1.3**).

Responsible Party

John Kuchinski – City Project Engineer

Section 4.3 MCM 3: Illicit Discharge Detection and Elimination

In accordance with the General Permit, the regulated MS4 must implement and enforce a program to detect and eliminate illicit discharges and non-stormwater discharges, unless otherwise authorized under Part IV (C)(3)(g) of the General Permit. The program must address procedures for prioritizing watersheds, procedures for tracing the source of an illicit discharge, procedures for removing the source of the discharges, and procedures for program evaluation and assessment. The regulated MS4 must, specifically:

- Implement a non-stormwater discharge ordinance that prohibits the discharge of non-stormwater discharges and provides for implementation of enforcement procedures and actions.

- Establish a written Illicit Discharge Detection and Elimination (IDDE) Plan that meets the requirements of Part IV (C)(2)(b).
- Maintain, keep current, and annually review for updates a map of municipally owned or operated storm sewer systems.
- Implement a dry weather outfall inspection program that meets the requirements of Part IV (C)(2)(e).
- Perform a wet weather assessment for the potential for illicit discharges during wet weather events prior to the expiration date of the General Permit.
- Summarize any Sanitary Sewer Overflow (SSO) events that discharge to the MS4 in annual reports.

The MCM 3 IDDE requirements will be implemented as detailed below.

BMP 3A Stormwater Ordinance

In accordance with the requirements of Part IV (C)(3)(a) of the General Permit, the City will continue to rely on the non-stormwater discharge ordinance developed during a previous permit cycle. This ordinance provides the City with the legal authority to prohibit non-stormwater discharges into the City storm sewer system and details appropriate enforcement procedures and actions.

Measurable Goal

During each permit year, the City will continue to enforce its existing non-stormwater discharge ordinance.

Responsible Party

David Hediger – Director, Planning and Code Enforcement

BMP 3B Written Illicit Discharge Detection and Elimination Plan

In accordance with Part IV (C)(3)(b) of the General Permit, the City will implement a written IDDE Plan that addresses discharges that are not uncontaminated groundwater, water from a natural resource, or an allowable non-stormwater discharge (**Appendix G**).

Measurable Goals

1. The City will review its existing IDDE SOP and revise it to be consistent with Part IV (C)(3)(b)(i) of the General Permit. The revised IDDE SOP will be renamed IDDE Plan.⁶
2. The City will submit the IDDE Plan to the MDEP for review and approval prior to the effective date of the General Permit. A copy of the approved IDDE Plan will be included in **Appendix G** at a later date.
3. Starting with the effective date of the General Permit, or as otherwise communicated by the MDEP, the City will implement the MDEP approved IDDE Plan.

⁶ The updated IDDE SOP may utilize measures identified in the City Capacity, Management, Operations, and Maintenance (CMOM) Plan to support IDDE actions. In accordance with Part IV (C)(3)(c) of the MS4 permit, IDDE requirements may be supported via demonstration of compliance with a written CMOM Plan.



4. If elimination of an illicit discharge within 60 calendar days of its identification and verification as an illicit discharge is not possible, the City will establish an expeditious schedule for its elimination and report the dates of identification and schedules for removal in the Annual Report (**Section 1.1.3**).

Responsible Parties

John Kuchinski – City Project Engineer

David Hediger – Director, Planning and Code Enforcement

BMP 3C Sewer System Map

In accordance with Part IV (C)(3)(d) of the General Permit, the City will continue to rely on its Beehive Asset Management and ArcGIS software to manage and maintain infrastructure maps. The storm sewer system infrastructure maps depict the following:

- Location and a unique identifier for all stormwater catch basins;
- Location of connecting surface and subsurface infrastructure;
- Direction of inflow and outflow pipes;
- Location of all discharges from all stormwater outfalls operated by the MS4 to receiving waters or to an interconnected MS4; and
- Description of outfall including type, material, size of conveyance, name of the receiving water.

The storm sewer system infrastructure maps are used for many tasks within the City, including the implementation of the dry weather outfall inspections and dry weather flow investigations.

Measurable Goal

During each permit year, the City will continue to review a portion of its existing storm sewer infrastructure maps in Beehive Asset Management in conjunction with ArcGIS and update or revise them as changes occur within the system.

Responsible Parties

Jim Wood – GIS Coordinator

Jonah Waterman – Asset Management Technician

John Kuchinski – City Project Engineer

BMP 3D Dry Weather Outfall Inspection Program

In accordance with Part IV (C)(3)(e) of the General Permit, the City will continue to implement dry weather outfall inspections to detect illicit discharges to the storm sewer system. The dry weather outfall inspection program will be documented in the written IDDE Plan (Section 4.3 BMP 3B; **Appendix G**).

Measurable Goal

During each permit year, the City will continue to implement its dry weather outfall inspection program that was developed as part of a previous permit cycle and revise program documents as any changes occur within the storm sewer system. By the end of PY5, the City will have completed a minimum of one visual dry weather inspection for each of their identified outfalls.

Responsible Party

John Kuchinski – City Project Engineer

BMP 3E Wet Weather Assessment

In accordance with Part IV (C)(3)(f) of the General Permit, the City will perform a wet weather assessment prior to the expiration date of the General Permit to identify outfalls with the potential for illicit discharges during wet weather events. The outcome of the assessment will be a list of outfalls identified for wet weather monitoring and testing if applicable, by the City in the next permit cycle and the rationale for including these outfalls.

Measurable Goals

1. In PY1, the City will develop criteria to evaluate the potential for illicit discharges during wet weather events.
2. In PY2 and PY3, the City will use the criteria established in PY1 to identify outfalls and/or discharges that may require wet weather evaluation for potential illicit discharges.
3. In PY4, the City will establish a draft list of outfalls identified for wet weather monitoring and testing in the subsequent permit cycle and the rationale for including these outfalls.
4. In PY5, the City will finalize the list of outfalls identified for wet weather monitoring and testing in the subsequent permit cycle and the rationale for including these outfalls. The City will revise its written IDDE Plan to include the list of outfalls identified, identify the outfalls targeted for wet weather monitoring based on the EPA New England bacterial source tracking protocol or other acceptable protocols, and specify the timing and frequency of wet weather monitoring to be completed during the term of the next permit cycle.

Responsible Party

John Kuchinski – City Project Engineer

Section 4.4 MCM 4: Construction Site Stormwater Runoff Control

In accordance with the General Permit, the regulated MS4 must implement and enforce a program to minimize or eliminate pollutants in any stormwater runoff to the regulated small MS4 from construction activities that result in a land disturbance greater than or equal to one acre. Reduction of stormwater discharges from construction activity disturbing less than one acre must be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb one or more acre.

The program must include:

- An ordinance or other regulatory mechanism that requires the use of erosion and sediment control BMPs at construction sites consistent with the minimum standards outlined in Appendix C, “Erosion and Sedimentation Control, Inspections and Maintenance and Housekeeping” of the General Permit.
- Procedures for site plan review that incorporate consideration of potential water quality impacts, erosion control, waste storage, and other elements of this MCM, the ability for the public to comment on such reviews at publicly noticed meetings, and procedures to consider information submitted by the public.
- Procedures for notifying construction site developers and operators of the requirements for registration under the Maine Construction General Permit (“MCGP”) and Chapter 500, Stormwater Management. The City of Lewiston has Delegated Authority under the Maine Stormwater Law and Chapter 500.
- 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.
- Documentation of construction activity that disturbs one or more acre within the urbanized area including written procedures for site inspections and enforcement of erosion and sedimentation control measures.

The MCM 4 Construction Site Stormwater Runoff Control requirements will be implemented as detailed below.

BMP 4A Ordinance/Regulatory Mechanism

In accordance with Part IV (C)(4) of the General Permit, the City will continue to rely on its existing Zoning and Land Use Code to require the use of erosion and sedimentation controls at construction sites and use of Chapter 500, Stormwater Management rules for all projects that include one or more acre of disturbed land. This code provides the City with the legal authority to regulate and enforce land use activities, including site development. The City will also continue to rely on its Delegated Authority for administration and enforcement of the Maine Construction General Permit (MCGP) and Chapter 500, Stormwater Management.

Measurable Goals

1. By the end of PY1, the City will review and update as needed, the existing Land Use Ordinance to ensure compliance with Part IV (C)(4) of the General Permit.
2. If existing regulatory mechanisms are found to require updating, by the end of PY2, the City will have an approved regulatory mechanism in place with the necessary enforcement authority.

Responsible Party

David Hediger – Director, Planning and Code Enforcement

BMP 4B Procedures for Site Plan Review

In accordance with Part IV (C)(4) of the General Permit, the City will continue to maintain and implement procedures for site plan review that incorporate consideration of potential water quality impacts, erosion control, waste storage, other elements of this MCM, the ability for the public to comment on such reviews at publicly noticed meetings, and procedures to consider information submitted by the public.

Measurable Goal

During each permit year, the City will continue to rely on its previously developed Zoning and Land Use Code, which documents site plan review procedures and standards.

Responsible Party

David Hediger – Director, Planning and Code Enforcement

BMP 4C Procedures for Notifying of Stormwater Requirements

In accordance with Part IV (C)(4)(a) of the General Permit, the City will continue to rely on its existing procedures for notifying construction site developers and operators of the requirements for registration under the MCGP or Chapter 500, Stormwater Management. This includes a question on permit application forms to trigger awareness of the MCGP requirements and to direct projects disturbing one acre or greater to obtain a MCGP.

Measurable Goal

During each permit year, the City will continue to rely on its existing procedures for notifying construction site developers and operators of the requirements for registration under the MCGP or Chapter 500, Stormwater Management as part of its delegated Authority for Maine Stormwater Law and Site Location of Development Act.

Responsible Party

David Hediger – Director, Planning and Code Enforcement

BMP 4D Construction Waste Control

In accordance with Part IV (C)(4)(a) of the General Permit, the City will continue to rely on its existing Zoning and Land Use Code to require 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. This ordinance provides the City with the legal authority to regulate and enforce land use activities.

Measurable Goal

During each permit year, the City will continue to rely on the existing Zoning and Land Use Code to require construction site developers and operators to effectively control waste, such as to protect water quality within the urbanized area.

*Responsible Party*

David Hediger – Director, Planning and Code Enforcement

BMP 4E Construction Activity Documentation

In accordance with Part IV (C)(4) of the General Permit, the City will continue to document every construction activity that disturbs one or more acre within the urbanized area. Such documentation includes written procedures for site inspections and enforcement of erosion and sediment control measures, as well as identifies inspection parties, procedures, schedules, and responsibilities.

Measurable Goal

The City will rely on its Beehive Asset Management software program to track all construction activity that disturbs one or more acre within the urbanized area. The City will continue to rely on the construction ordinance developed during a previous permit cycle, which provides the City with the legal authority to regulate and enforce land use activities, including inspections of site plans, erosion and sediment control plans, contractor inspection logs, and construction stormwater BMPs. All construction inspections will be documented in the City construction activity database.

Responsible Parties

John Kuchinski – City Project Engineer

David Hediger – Director, Planning and Code Enforcement

Section 4.5 MCM 5: Post-Construction Stormwater Management in New Development and Redevelopment

In accordance with the General Permit, the regulated MS4 must implement and enforce a program to address post-construction 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. Including:

- Promoting strategies that include a combination of structural and/or nonstructural BMPs appropriate to prevent or minimize water quality impacts.
- Implementing post-construction discharge ordinance or other regulatory mechanism to provide for adequate long-term operation and maintenance of post-construction BMPs.

The MCM 5 Post-Construction Stormwater Management in New Development and Redevelopment requirements will be implemented as detailed below.

BMP 5A Post-Construction Stormwater Management in New Development and Redevelopment

In accordance with Part IV (C)(5)(a) of the General Permit, the City will continue to rely on its existing Zoning and Land Use Code and procedures developed during a previous permit cycle to promote strategies including a combination of structural and/or non-



structural BMPs appropriate to manage water quality impacts and notify developers of Low Impact Development (LID) measures. The City will also continue to rely on its Delegated Authority under Stormwater Law and Site Location of Development Act for administration and enforcement of the MCGP and Chapter 500, Stormwater Management.

Measurable Goal

The City will continue to enforce its Zoning and Land Use Code and procedures developed during a previous permit cycle. These measures provide the City with the legal authority to regulate and enforce post-construction stormwater runoff, as well as notify developers of various stormwater BMP strategies, including those that are low impact.

Responsible Party

David Hediger – Director, Planning and Code Enforcement

BMP 5B Regulatory Mechanism

In accordance with Part IV (C)(5)(b), of the General Permit, the City will continue to rely on its Beehive program and existing Zoning and Land Use Code to ensure adequate long-term operation and maintenance of post-construction BMPs. The City also relies on MDEP administration and enforcement of the MCGP and Chapter 500, Stormwater Management.

Measurable Goal

During each permit year, the City will continue to use its Beehive program to track post-construction infrastructure and enforce its Zoning and Land Use Code developed during a previous permit cycle. The Zoning and Land Use Code requires any person owning, operating, or having control over stormwater management facilities to maintain a Post-Construction Stormwater Management Plan (subject to City approval), conduct annual post-construction inspections by a qualified third-party inspector, and provide an annual certification certifying the occurrence of such inspections and functionality of the stormwater management system in accordance with the approved Post-Construction Stormwater Management Plan. This ordinance provides the City with the legal authority to regulate and enforce post-construction stormwater management.

Responsible Party

David Hediger – Director, Planning and Code Enforcement

Section 4.6 MCM 6: Pollution Prevention/Good Housekeeping for Municipal Operations

In accordance with the General Permit, the regulated MS4 must mitigate or eliminate pollutant runoff from municipal operations on property that is owned or managed by the City and located within the UA.

The City must:

- Maintain an inventory of all municipal operations conducted in, on, or associated with spaces owned or operated by the City that have the potential to cause or contribute to stormwater or surface water pollution.
- Implement written operation and maintenance procedures for all municipal operations identified in the inventory.
- Evaluate and prioritize the schedule for repairing and/or upgrading conveyances, structures, and outfalls associated with the MS4.
- Implement written procedures in a Stormwater Pollution Prevention Plan ("SWPPP") for public works facilities, transfer stations, and school bus maintenance facilities, as applicable.

The MCM 6 Pollution Prevention/Good Housekeeping for Municipal Operations requirements will be implemented as detailed below.

BMP 6A Inventory of Municipal Facilities in MS4

The City will continue to rely on its existing inventory of municipal facilities established during a previous permit cycle to meet Part IV (C)(6)(a) of the General Permit.

Measurable Goal

The City will continue to maintain an inventory list of all municipally owned fixed facilities and ensure that the list is annually reviewed and updated, as necessary.

Responsible Party

John Kuchinski – City Project Engineer

BMP 6B Written Operation and Maintenance (O&M) Plan

In accordance with Part IV (C)(6)(b) of the General Permit, the City will continue to implement O&M Plans developed during a previous permit cycle for municipally owned fixed facilities.

Measurable Goals

1. The City will continue to maintain current, annually review for improvements, and implement the O&M Plans for municipally owned fixed facilities.
2. The City will continue to implement items and programs identified in O&M Plans.
3. The City will continue to conduct annual employee training to prevent and reduce stormwater pollution from the municipal operations and facilities subject to the General Permit.
4. The City will continue to implement a program to sweep all paved City streets and paved City parking lots at least once per year after snowmelt.
5. The City will continue to implement a program to inspect catch basins and stormwater structures that accumulate sediment at least once every other year and clean such structures as necessary and in accordance with Part IV(C)(6)(b).



6. The City will continue to report in each Annual Report (**Section 1.1.3**) on the types of trainings presented, the percentage of municipal and contract staff, and specific staff occupations, that received training, the length of the training, and training content delivered.

Responsible Party

John Kuchinski – City Project Engineer

BMP 6C Sweeping Program

In accordance with Part IV (C)(6)(b)(iii) of the General Permit, the City will continue to sweep all paved roads and paved parking lots maintained by the City.

Measurable Goal

During each permit year, the City will continue to sweep all paved roads and paved parking lots maintained by the City. Sweeping activities will be completed at a minimum of once per year after snowmelt.

Responsible Party

John Kuchinski – City Project Engineer

BMP 6D Catch Basin and Stormwater Structure Inspections

In accordance with Part IV (C)(6)(b)(iv) of the General Permit, the City will continue to inspect catch basins and other stormwater structures that accumulate sediment.

Measurable Goals

1. During each permit year, the City will continue to inspect a minimum of 50% of the City owned catch basins and stormwater structures that accumulate sediment, such that each catch basin and stormwater structure is inspected at least once every other year.
2. During each permit year, the City will continue to clean catch basins and stormwater structures that accumulate sediment, such that excessive sediment accumulation does not occur within each basin/structure.
3. The City will continue to document catch basin and stormwater structure inspections in their existing databases.

Responsible Parties

John Kuchinski – City Project Engineer

Reggie Poussard Highway Division Operations Manager

BMP 6E Infrastructure Maintenance and Repairs

In accordance with Part IV (C)(6)(c) of the General Permit, the City will continue to implement their procedures for maintaining and repairing their separate storm sewer system infrastructure. This includes continuing to use Beehive software to prioritize the schedule for any necessary repairs.

Measurable Goals

1. During each permit year, the City will continue to maintain, repair, and upgrade its storm sewer system infrastructure as needed based on the results of its inspections, available funding, and prioritized projects.
2. The City will continue to implement existing procedures to track maintenance, repairs, and upgrades to the storm sewer system infrastructure in its existing database system.
3. The City will continue to implement an approach for prioritizing projects for the storm sewer system infrastructure.

Responsible Parties

John Kuchinski – City Project Engineer

Reggie Poussard Highway Division Operations Manager

BMP 6F Stormwater Pollution Prevention Plan

Part IV (C)(6)(d) of the General Permit requires the City to implement written procedures in a SWPPP for public works facilities, transfer stations, and school bus maintenance facilities, as applicable. The City continues to implement its SWPPP for its Public Works Facility located within the UA.⁷ A SWPPP will be established for any future qualifying municipal facilities, as required by applicable regulation.

Measurable Goals

1. The City will review its existing SWPPP and revise it as needed to comply with the General Permit prior to the effective date of the General Permit.
2. In PY1 through PY5, the City will implement its amended SWPPP based on the requirements of the General Permit for its Public Works Facility. The implementation of this plan includes annual trainings, quarterly compliance inspections, and quarterly visual monitoring of outfalls.

Responsible Party

John Kuchinski – City Project Engineer

⁷ A second Public Works Facility and the Solid Waste Facility are located outside of the UA and do not require SWPPPs. The Lewiston-Auburn Water Pollution Control Authority facility is not operated by the City.



SECTION 5 | DISCHARGES TO IMPAIRED WATERS

Section 5.1 Impaired Waters

There are two urban impaired streams that flow through the City; Hart Brook and Jepson Brook.

Section 5.2 Compliance with Total Maximum Daily Load Requirements

This Stormwater Management Plan complies with approved total maximum daily loads (TMDLs) and the Hart Brook Watershed Management Plan. New or increased discharges of stormwater to this impaired waterbody are not proposed.

Section 5.3 Best Management Practices

The City proposes to implement the following BMPs within the effective period of the General Permit, such as to lessen the discharge of pollutants from stormwater into Hart Brook and Jepson Brook.

- Conduct education and outreach to inform the public of the negative impact of pet waste on water quality. This will involve posting information on social media platform(s) and distributing informational flyers to residents when they annually register their pets with the City (*Target Waters: Hart Brook and Jepson Brook*).
- Increase street sweeping activities within the Hart Brook and Jepson Brook watersheds. Increased street sweeping activities will be targeted to maximize benefit (*Target Waters: Hart Brook and Jepson Brook*).
- The City will conduct a storm drain stenciling project specific to the Hart Brook Watershed.
- The City will continue its Combined Sewer Overflow (CSO) abatement overflow program within the Jepson Brook Watershed.

In addition, the City will continue to support implementation of the Hart Brook Watershed Management Plan. The goals of this plan are to protect and restore the quality of water in the Hart Brook.

Responsible Party

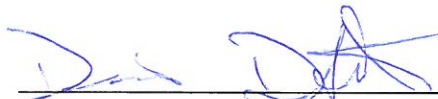
John Kuchinski – City Project Engineer



SECTION 6 | GENERAL REQUIREMENTS

The City of Lewiston is committed to reducing the discharge of pollutants from its regulated small MS4 to the maximum extent practicable and maintains the highest standards for stormwater management through regular review, updating, and implementation of this Stormwater Management Plan.

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.



Denis D'Auteuil

3/26/21

Date

City Manager _____
Title

LIST OF REFERENCES

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<http://cfpub.epa.gov/npdes/stormwater/measurablegoals/index.cfm>

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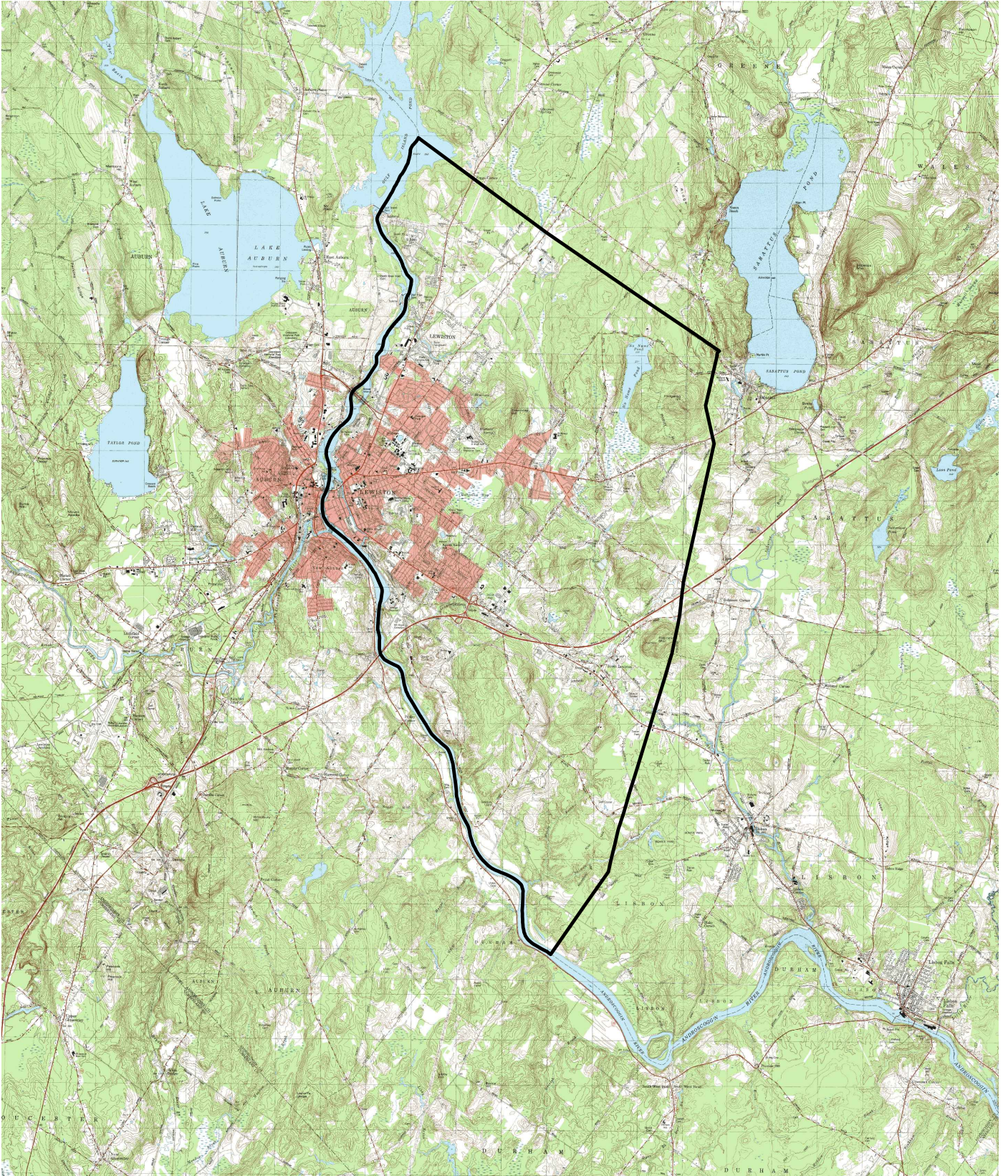
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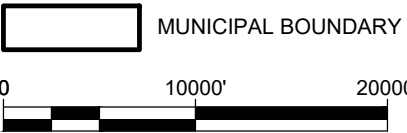


APPENDIX A

**LOCATION MAP
URBANIZED AREA MAP**



SOURCE:
 U.S.G.S. TOPOGRAPHIC QUADRANGLE
 LEWISTON
 @ 1:24,000



MUNICIPAL BOUNDARY

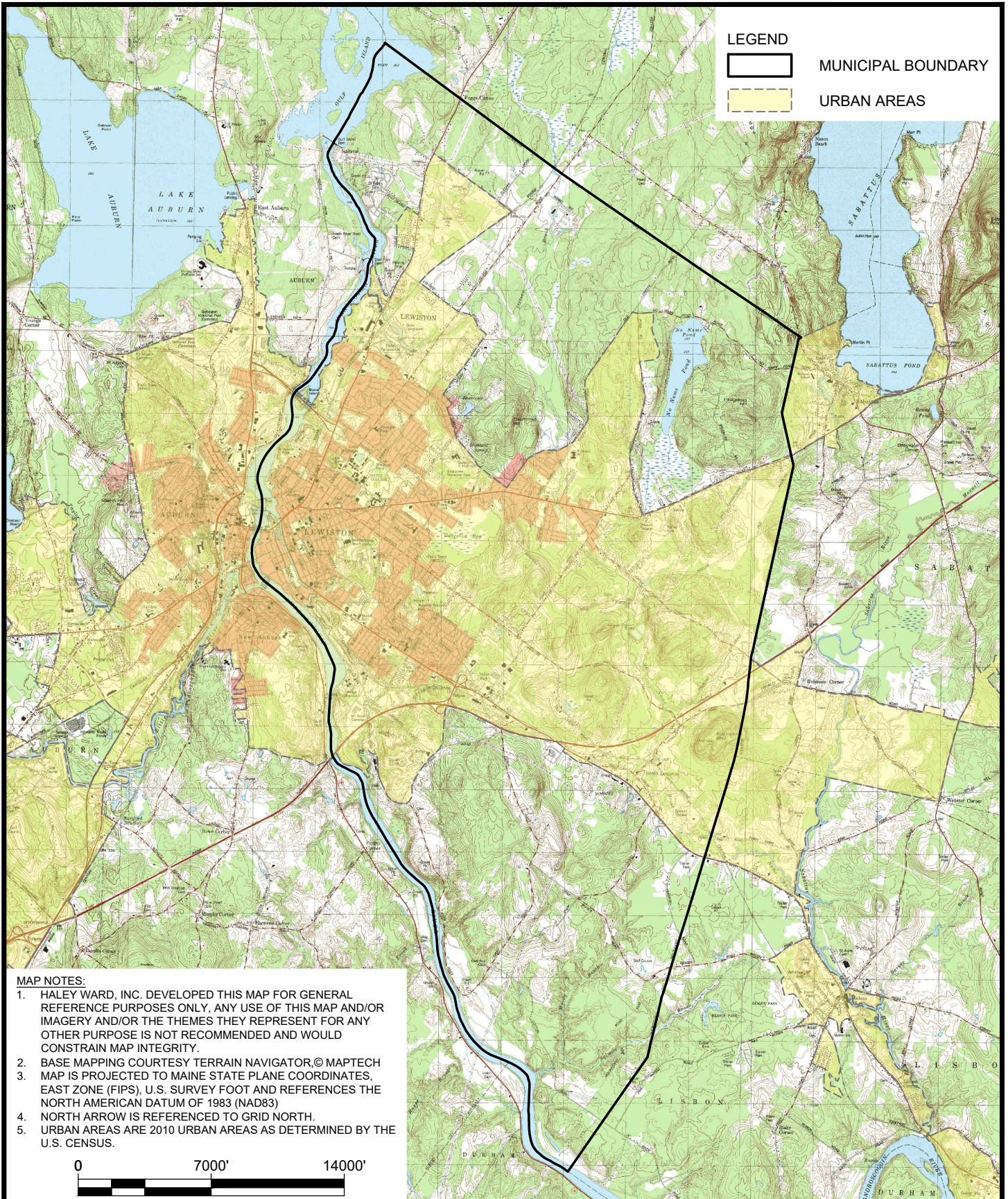


HALEY WARD

ENGINEERING | ENVIRONMENTAL | SURVEYING

**CITY OF LEWISTON
 LEWISTON, MAINE
 LOCATION MAP**

2021.03.15
 10336.009



LEGEND

MUNICIPAL BOUNDARY
 URBAN AREAS

- MAP NOTES:**
1. HALEY WARD, INC. DEVELOPED THIS MAP FOR GENERAL REFERENCE PURPOSES ONLY. ANY USE OF THIS MAP AND/OR IMAGERY AND/OR THE THEMES THEY REPRESENT FOR ANY OTHER PURPOSE IS NOT RECOMMENDED AND WOULD CONSTRAIN MAP INTEGRITY.
 2. BASE MAPPING COURTESY TERRAIN NAVIGATOR, © MAPTECH
 3. MAP IS PROJECTED TO MAINE STATE PLANE COORDINATES, EAST ZONE (FIPS), U.S. SURVEY FOOT AND REFERENCES THE NORTH AMERICAN DATUM OF 1983 (NAD83)
 4. NORTH ARROW IS REFERENCED TO GRID NORTH.
 5. URBAN AREAS ARE 2010 URBAN AREAS AS DETERMINED BY THE U.S. CENSUS.



CITY OF LEWISTON LEWISTON, MAINE URBANIZED AREA MAP	DWG:	FIG. 2	BY:	BTH
	JN:	10336.009	DATE:	2021.03.15
	SCALE:	1"=7000'	REV:	
			REV DATE:	

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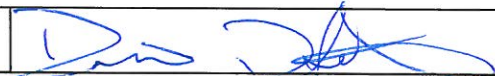


APPENDIX B
NOTICE OF INTENT



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	Lewiston	Permittee ID #	MER041012		
Name and title of chief elected official or principal executive officer	Denis D'Auteuil, City Manager				
Mailing Address	27 Pine Street				
Town/City	Lewiston	State	ME	Zip Code	04240
Daytime Phone	(207) 513-3121	Email	ddauteuil@lewistonmaine.gov		
PRIMARY CONTACT PERSON FOR OVERALL STORMWATER MANAGEMENT PROGRAM (if different than PEO/CEO)					
Name and Title	John Kuchinski, Project Engineer				
Mailing Address	103 Adams Avenue				
Town/City	Lewiston	State	ME	Zip Code	04240
Daytime Phone	(207) 513-3003	Email	jkuchinski@lewistonmaine.gov		
STORMWATER MANAGEMENT PLAN (SWMP)					
Urbanized Area (sq. mi.)	17.77 square miles				
I have attached our updated SWMP with ordinances, SOPs, forms. <input checked="" type="checkbox"/>					
Name of streams, wetlands, or waterbodies to which the regulated small MS4 discharges (<i>attach additional sheets as necessary</i>): Gully Brook, Hart (Dill) Brook, Jepson Brook, No Name Brook, Stetson Brook,					
List of impaired waterbodies that receive stormwater from the regulated small MS4 (<i>attach additional sheets as necessary</i>): Androscoggin River					
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	3/26/21

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	



APPENDIX C

**GENERAL PERMIT FOR DISCHARGE OF STORMWATER FROM
SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS**

**State of Maine
Department of Environmental Protection
Bureau of Water Quality**

**General Permit for the Discharge of Stormwater from Small
Municipal Separate Storm Sewer Systems (MS4)**



MER041000

Final Permit

October 15, 2020

General Permit--Municipal Separate Storm Sewer Systems

Maine Pollutant Discharge Elimination System (MEPDES)/Maine Waste Discharge License (WDL)

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Final Permit
General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems



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

DEPARTMENT ORDER

IN THE MATTER OF

MUNICIPAL SEPARATE STORM SEWER SYSTEM)	MAINE POLLUTANT DISCHARGE
GENERAL PERMIT)	ELIMINATION SYSTEM PERMIT
STATE OF MAINE)	
MER041000)	MAINE WASTE DISCHARGE LICENSE
W009170-5Y-C-R)	RENEWAL
		APPROVAL

Pursuant to the provisions of Federal law Title 33 USC, §1251, and Maine Law 38 M.R.S., Section 414-A et seq., and applicable regulations, the Maine Department of Environmental Protection (Department/DEP) has considered an application by the State of Maine to renew Maine Pollutant Discharge Elimination System (MEPDES) permit #MER041000/Maine Waste Discharge License W009170-5Y-A-N General Permit (GP), with its supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

Pursuant to applicable laws and rules of the State's MEPDES program, the Department's Bureau of Water Quality, Division of Water Quality Management has developed a GP for discharges of stormwater from Small Municipal Separate Storm Sewer Systems (MS4s) to surface waters of the state. This GP is being issued as a combination MEPDES permit/WDL and has been assigned #MER041000. This GP is a two-step general permit pursuant to 40 Code of Federal Regulation (CFR) §122.28(d)(2). The Department will establish a list of required actions and corresponding schedules of compliance for each small MS4 permittee in a separate Department Order based on a Department review of the permittee's Notice of Intent (NOI) and Storm Water Management Plan (SWMP).

REGULATORY SUMMARY

On January 12, 2001, the Department received authorization from the U.S. Environmental Protection Agency (EPA) to administer the National Pollutant Discharge Elimination System (NPDES) permit program in Maine. From that point forward, the program has been referred to as the MEPDES permit program. The terms and conditions of this GP are consistent with the requirements established in the MEPDES permit program.

Final Permit

General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

CONCLUSIONS

Based on the findings in this GP, and subject to the terms and conditions listed in Parts I-IV of this GP and a list of required actions and corresponding schedules of compliance for each permit specific Department Order, the Department makes the following conclusions:

1. The discharge(s) covered under this GP, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.
2. The discharge(s) covered under this GP, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with state law.
3. The provisions of the State's antidegradation policy, Maine law, 38 M.R.S. § 464(4)(F), will be met, in that:
 - (a) Existing in-stream water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;
 - (b) Where high quality waters of the State constitute an outstanding natural resource, that water quality will be maintained and protected;
 - (c) Where the standards of classification of the receiving water body are not met, the discharge will not cause or contribute to the failure of the water body to meet the standards of classification;
 - (d) Where the actual quality of any classified receiving water body exceeds the minimum standards of the next highest classification that higher water quality will be maintained and protected; and
 - (e) Where a discharge will result in lowering the existing water quality of any water body, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.
4. The discharge(s) covered under this GP will be subject to effluent limitations that require application of best practicable treatment as defined in 38 M.R.S. § 414-A(1)(D).

Final Permit

General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems


ACTION

Based on the findings and conclusions as stated above, the Department APPROVES GP #MER041000, *General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems*, which results in a discharge of stormwater to surface waters of the state, SUBJECT TO THE ATTACHED CONDITIONS, including:

1. The attached conditions included as Part I-IV of this GP.
2. *Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable To All Permits*, revised July 1, 2002, attached.
3. This GP becomes effective on July 1, 2022 and expires at midnight five (5) years after that date. If the GP is to be renewed, it will remain in force until the Department takes final action on the renewal. Persons wishing to obtain coverage under this GP must apply for coverage by way of the submission of a Notice of Intent (NOI) not later than March 31, 2021.

DONE AND DATED AT AUGUSTA, MAINE, THIS 15 DAY OF October, 2020.

COMMISSIONER OF ENVIRONMENTAL PROTECTION

BY: 

for Melanie Loyzim, Acting Commissioner

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of Public Notice December 9, 2019.

Date filed with Board of Environmental Protection October 15, 2020

This Order prepared by GREGG WOOD, BUREAU OF WATER QUALITY

MS4 Final Permit 2020

10/14/2020

PART I. Coverage Under This Permit**A. AUTHORITY**

A waste discharge permit is required for the direct or indirect discharge of pollutants to waters of the State. A two-step general permit will be issued for point source discharges (direct discharges) of stormwater. A violation of a condition or requirement of a general permit constitutes a violation of Maine's water quality laws and the federal Clean Water Act and subjects the discharger to penalties under *Organization and Powers*, 38 M.R.S. § 349, and § 309 of the Clean Water Act. Nothing in this GP is intended to limit the Department's authority under the waste discharge and water classification statutes or rules. This GP does not affect requirements under other applicable Maine statutes such as Site Location of Development (Site Law), Stormwater Management, and Natural Resources Protection Act (NRPA). This GP does not prevent a municipality from adopting stricter standards than contained in this GP or state or federal standards.

B. PERMIT COVERAGE

This MS4 GP is part of a two-step general permit pursuant to 40 CFR §122.28(d)(2). The terms and conditions contained herein are applicable to all regulated small MS4s. The Department will also issue a separate permittee specific Department Order (DEP Order) for each MS4 that establishes a list of required actions and a corresponding schedule of compliance for each action item. This GP in conjunction with the permittee specific DEP Order authorizes the direct discharge of stormwater from a regulated MS4 to waters of the State other than groundwater, provided that the MS4 is located in an Urbanized Area as determined by the inclusive sum of the 2000 and 2010 Decennial Census by the Bureau of Census. Small MS4s are those entities which meet the definition in 40 CFR Part 122.26(b)(16). Regulated small MS4s are those entities required pursuant to 40 CFR 122.26(a)(9)(i)(A) to obtain stormwater permit coverage to operate their small MS4. Discharges from regulated small MS4s must meet the requirements of this GP, the permittee specific DEP Order, and applicable provisions of Maine's waste discharge and water classification statutes and rules. Compliance with this GP and permittee specific DEP Order authorizes a person to discharge stormwater, pursuant to Water Pollution Control Law, 38 M.R.S. § 413, as described below. Discharges listed in Part IV(C)(3)(h) are excluded from coverage under this GP and the permittee specific DEP Order. Unless otherwise explicitly noted, this GP and the permittee specific DEP Order only covers operations or activities associated with stormwater runoff within an identified Urbanized Area.

- 1. Effective date of this General Permit.** This GP becomes effective on July 1, 2022 and expires at midnight five (5) years after that date. Persons wishing to obtain coverage must apply for coverage by way of the submission of a NOI not later than March 31, 2021. New permittees seeking coverage under this GP may submit a NOI to the Department at any time during the 5-year term of this GP.

PART I. Coverage Under This Permit (cont'd)**B. PERMIT COVERAGE (cont'd)**

The Department must review the NOI submitted by each applicant to determine whether the information is complete and to establish the additional terms and conditions necessary to meet 40 CFR §122.34. The Department will follow the procedure outlined in Part III of this GP to establish a list of required actions and a corresponding schedule of compliance for the action items for each permittee specific DEP Order.

The Department will notify an applicant within 60 calendar days of receipt of an NOI as to whether or not the NOI is deemed complete for processing by the Department. Pursuant to Department rule 06-096 CMR Chapter 2, *Rule Concerning the Processing of Applications And Other Administrative Matters*, a request for a hearing on an application must be received by the Department, in writing, no later than 20 days after the application is accepted as complete for processing. The request must indicate the interest of the person filing the request and specify the reasons why a hearing is warranted. If the Department does not notify the applicant within 60 calendar days of this time, the NOI is accepted. An applicant is authorized to discharge when the GP becomes effective and the applicable permittee specific DEP Order establishing a list of required actions and a corresponding schedule of compliance for the action items is issued as a final agency action. In the event coverage under the GP is not granted, the Department must notify the applicant of the reason(s) for not granting coverage. A person may apply for issuance of an individual MEPDES permit if the proposed discharge(s) is not approvable for coverage under this GP.

2. **Waiver of authorization.** The Department may grant a regulated small MS4 a waiver from the requirement to obtain authorization only if:
 - a. The population within the Urbanized Area portion of the municipality is less than 1,000, and stormwater from the MS4 has not caused, or is not causing or contributing to the impairment of a receiving water body; and
 - b. The MS4 does not contribute to the pollutant load of a physically interconnected regulated MS4 (see 40 CFR 122.32(d)(1)); and
 - c. The MS4 discharges any pollutant(s) that has/have been identified as a cause of impairment of any water body to which it discharges, stormwater controls are not needed based on waste load allocations that are part of an EPA approved or established “total maximum daily load” (TMDL) that addresses the storm water issue of significance. See 40 CFR 122.32(d)(2).
3. **Continuation of Coverage.** Coverage under this GP and the permittee specific DEP Order will be continued provided there are no changes in the discharge as described in the NOI. If changes occur or are proposed, the permittee having filed the NOI must notify the Department, as specified in this GP. Upon reissuance of a new GP, a permittee wishing to continue coverage must submit a new NOI to the Department.

PART I. Coverage Under This Permit (cont'd)

B. PERMIT COVERAGE (cont'd)

If this GP and a permittee specific DEP Order are not reissued, revoked or replaced prior to the expiration date, both will be administratively continued and remain in force and effect. In that case, any permittee who was granted permit coverage prior to the expiration date will automatically remain covered by the administratively continued GP and permittee specific DEP Order until the earlier of:

- a. Reissuance or replacement of this GP, at which time the permittee must submit a new NOI to the Department in accordance with the new GP to maintain authorization to discharge;
 - b. The permittee's submittal of a Notice of Termination (NOT);
 - c. Issuance of an individual permit for the permittee's discharges; or
 - d. A formal permit decision by the Commissioner not to reissue this GP, at which time the permittee must seek coverage under an alternative general permit or individual permit.
4. **Limitations on Coverage.** This GP does not authorize a stormwater discharge that requires an individual waste discharge permit or is required to obtain coverage under another waste discharge GP. The Department may require any permittee with a discharge authorized by this GP to apply for and obtain an individual permit or an alternative GP. Any interested person may petition the Department to take action under this paragraph. Examples of when an individual waste discharge permit may be required are specified in rule.
5. **Annual Fee.** Coverage under the GP and the permittee specific DEP Order will be continued upon payment of an annual fee. Fees must be paid by check or money order, payable to **Treasurer, State of Maine.**
6. **Individual Permit or Alternative GP.** When an individual permit is issued to a discharger otherwise subject to this GP, or the discharger is authorized to discharge under an alternative GP, the applicability of this GP to the individual permittee and the permittee specific DEP Order are automatically terminated on the effective date of the individual permit or the date of authorization of coverage under the alternative GP, whichever the case may be. When an individual permit is denied to a permittee otherwise subject to this GP, or the operator is denied for coverage under an alternative GP, the applicability of this GP to the individual MEPDES permittee is automatically terminated on the date of such denial, unless otherwise specified by the Commissioner.

PART I. Coverage Under This Permit (cont'd)**C. COMPLIANCE**

1. **Compliance.** Regulated small MS4s must remain in compliance with all standards and requirements of this GP and the permittee specific DEP Order. Non-compliance with any of the standards and requirements of this GP or with any of the standards and requirements of a permittee specific DEP Order constitutes a violation of the GP and the CWA. If the Department determines that the standards of this GP or permittee specific DEP Order have not been met, the Department will notify the permittee and may undertake one or more of the following actions:
 - a. Authorize coverage under this GP after appropriate controls and implementation procedures designed to bring the discharge into compliance with this GP and the permittee specific DEP Order and water quality standards have been implemented as determined by the Department;
 - b. Require an individual waste discharge permit;
 - c. Inform the person that the discharge is prohibited; or
 - d. Take enforcement action to address the violation(s).
2. **Non-stormwater.** This GP does not authorize discharges that are mixed with sources of non-stormwater, other than those discharges in compliance with Part IV (C)(3)(h).
3. **Discharge of hazardous substances, chemicals, or oil.** This GP does not authorize the discharge of hazardous substances, chemicals, or oil resulting from an on-site spill.
4. **Total maximum daily load (“TMDL”).** This GP does not authorize a direct discharge that is inconsistent with any EPA approved TMDL waste load allocation.
5. **Violation of water quality standards.** This GP does not authorize a discharge that causes or contributes to a violation of a water quality standard. Discharges covered under this GP may not:
 - a. Contain any pollutant, including toxic substances, in quantities or concentrations, which may cause or contribute to any adverse impact on the receiving water;
 - b. Be to a receiving water which is not meeting its classification standard for any characteristic which may be affected by the discharge; or
 - c. Impart color, taste, turbidity, radioactivity, settleable materials, floating substances or other properties that cause the receiving water to be unsuitable for the designated uses ascribed to its classification.

PART I. Coverage Under This Permit (cont'd)

C. COMPLIANCE (cont'd)

6. **Waste discharge license (groundwater).** A waste discharge license (“WDL”) may be required for the discharge of stormwater through any well or wells, including drywells and subsurface fluid distribution systems. For complete requirements, see *Rules To Control The Subsurface Discharge Of Pollutants*, 06-096 CMR 543 (effective October 6, 2006), and *Stormwater Management*, 06-096 CMR 500 Appendix D (last amended August, 2015).
 - a. A “subsurface fluid distribution system” is an assemblage of perforated pipes, drain tiles, or similar mechanisms intended to distribute fluids below the surface of the ground.
 - b. A “well” is a bored, drilled, or driven shaft the depth of which is greater than the largest surface dimension, whether the shaft is typically dry or contains liquid; or a dug hole the depth of which is greater than the largest surface dimension; or a subsurface fluid distribution system.
 - c. “Well injection” means the subsurface discharge of fluids into or through a well.
7. **Removed Substances.** Solids, sludges, filter backwash or other pollutants removed or resulting from the treatment of stormwater must be disposed of in a manner approved by the Department.
8. **Monitoring Requirement.** The Department may require monitoring of an individual discharge as may be reasonably necessary in order to characterize the nature, volume or other attributes of that discharge or its sources.
9. **Other Information.** When the permittee becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in the Notice of Intent or in any other report to the Department, he or she must promptly submit such facts or information.
10. **Endangered Species.** Pursuant to State and Local Cooperation Law, 12 M.R.S. § 12806, A state agency or municipal government shall not permit, license, fund or carry out projects that will:
 - a. Significantly alter the habitat identified under Conservation of Endangered Species Law, 12 M.R.S. § 12804, subsection 2 of any species designated as threatened or endangered under this subchapter; or
 - b. Violate protection guidelines set forth in 12 M.R.S. § 12804, subsection 3.

Final Permit

General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

PART II. Definitions

The following terms have the following meanings as used in this GP and the permittee specific DEP Order in addition to the definitions found in Chapter 520 of the Department's rules, and applicable statutory definitions.

- A. Applicant** - Means a municipality which files an NOI pursuant to Part III of this GP.
- B. Best Management Practices (BMP)** - Means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.
- C. Catch basin evaluation** - Means an inspection of a catch basin structure that includes documentation of water quality. Water quality evaluation includes, at a minimum, visual observations of sheen, discoloration, foaming, evidence of sanitary sewage, excessive algal growth, and similar visual indicators, as well as observations of odor and the depth of sediment in the sump. This evaluation may be conducted in conjunction with a routine cleaning event or separately, in order to determine which structure(s) require cleaning.
- D. Commissioner** - Means the Commissioner of the Maine Department of Environmental Protection.
- E. Common Plan of Development or Sale** - Means a subdivision under municipal law as determined by the municipality where the subdivision is located.
- F. Compensation Fee Utilization Plan** - Means a plan that specifies how funds received as a fee payment will be allocated to reduce the impact of stormwater pollution to an impaired waterbody.
- G. Construction Activity** - Means:
 - 1. Construction activity including one acre or more of disturbed area, or activity with less than one acre of total land area that is part of a common plan of development or sale, if the common plan of development or sale will ultimately disturb equal to or greater than one acre; or
 - 2. Any other construction activity designated by the Department based on the potential for contribution to a violation of a water quality standard or for significant contribution of pollutants to waters of the State.
- H. Department (DEP)** - Means the State of Maine Department of Environmental Protection.
- I. Direct Discharge** - The definition of "Direct Discharge" in this GP has been taken from Maine law 38 M.R.S. § 466 ("Definitions") and is as follows: "any discernible, confined and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation or vessel or other floating craft, from which pollutants are or may be discharged."

PART II. Definitions (cont'd)

- J. Discharge** - Means any spilling, leaking, pumping, pouring, emptying, dumping, disposing or other addition of pollutants to the Waters of the State (for the purpose of this GP, located within the permittee's UA and not including groundwater.)
- K. Discharge Point** – For the purposes of this permit the location where collected and concentrated stormwater flows are discharged from the facility such that the first receiving waterbody into which the discharge flows, either directly or through a separate storm sewer system, is a water of the State.
- L. Disturbed Area** - Means all land areas that are stripped, graded, grubbed, filled or excavated at any time during the site preparation or removing vegetation for, or construction of, a project. Cutting of trees, without grubbing, stump removal, disturbance or exposure of soil is not considered “disturbed area”. “Disturbed area” does not include routine maintenance but does include redevelopment and new impervious areas. “Routine maintenance” is maintenance performed to maintain the original line and grade, hydraulic capacity, and original purpose of the facility. Paving impervious gravel surfaces provided that an applicant or permittee can prove the original line and grade and hydraulic capacity will be maintained and original purpose of the gravel surface remains the same is considered routine maintenance.
- M. Dry Weather Flow** - Means any observable flow from an outfall when there has not been measurable precipitation greater than 1/4 of an inch, or ice or snow melt within 72 hours prior to the outfall inspection.
- N. Dry weather inspection** - Means an inspection of an outfall that includes observations of sheen, discoloration, foaming, evidence of sanitary sewage, excessive algal growth, and similar visual indicators, as well as detection of odor. These inspections must be completed during a dry weather flow condition (when the storm sewer system is not impacted by current or recent precipitation) or when the outfall is not flowing even if it is within the 72 hours of precipitation greater than 1/4 of an inch, or ice or snow melt.
- O. Education/outreach Campaign** - Means a specific set of activities aimed at an identified target audience organized to achieve a particular goal. Campaigns are the totality of all the efforts and tools used to achieve the goal.
- P. Education Outreach tool** – A method used to deliver a message to a target audience. Messages may be printed materials such as brochures or newsletters; electronic materials such as websites or online ads; mass media such as newspaper articles or public service announcements (radio or television); or displays in public areas such as town/city hall.
- Q. Education Outreach to change behavior** – Means to promote and reinforce desirable behaviors designed to reduce stormwater pollution.

PART II. Definitions (cont'd)

- R. Education/outreach Program** - Means all the education and outreach campaigns and activities to meet minimum control measure 1 (MCM1) and may include activities in the other minimum control measures.
- S. 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 this GP.
- T. Impaired Waterbody** - Means a waterbody that is not attaining water quality criteria or standards, as determined by the Department.
- U. Low impact development** - “Low impact development” or “green infrastructure” means site planning and design strategies intended to replace or replicate predevelopment hydrology through the use of source control and relatively small-scale measures integrated throughout a site to disconnect impervious surfaces and enhance filtration, treatment, and management of stormwater runoff as close to its source as possible. Low impact development strategies may be either nonstructural or structural, except that low impact development strategies utilizing structural stormwater management techniques shall be limited to an impervious contributing drainage area equal to or less than 1 acre. Low impact development strategies include, but are not limited to: bioretention filters, grass swales and channels, vegetated filter strips, permeable pavements, rain gardens and vegetated rooftops.
- V. Maintenance** - “Maintenance” means an activity undertaken to maintain operating condition, original line and grade, hydraulic capacity, and original purpose of the project. Paving an impervious gravel surface at original line, grade and hydraulic capacity is considered maintenance. Replacement of a building is not considered maintenance of the building.
- W. Message** – Information distributed to a specific target audience.
- X. Municipal Separate Storm Sewer Systems (MS4)** - Means a conveyance or system of conveyances designed or used for collecting or conveying stormwater (other than a publicly owned treatment works (POTW), as defined at 40 CFR 122.2, or a combined sewer), including, but not limited to, roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels or storm drains owned or operated by any municipality, sewer or sewage district, Maine Department of Transportation (MDOT), Maine Turnpike Authority (MTA), State agency or Federal agency or other public entity that discharges to waters of the State other than groundwater.
- Y. New development or construction** - “New development or construction” means activity undertaken to develop property, including but not limited to: the construction of buildings, parking lots, roads and other new impervious surfaces; landscaping; and other activities that disturb land areas. New development or construction does not include redevelopment or maintenance. Permitted municipalities may define new development more stringently.

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PART II. Definitions (cont'd)

- Z. Notice of Intent (NOI)** - Means a notification of intent to seek coverage under this GP and a permittee specific DEP Order as provided in Part III(A), made by the applicant to the Department on an NOI form(s) provided by the Department. This is also the mechanism used to request coverage under this GP and under a permittee specific DEP Order.
- AA. Outfall** - Means the point source where the MS4 discharges from a pipe, ditch or other discrete conveyance to the waters of the state other than groundwater, or to another entity's MS4, and does not include pipes, cross culverts, tunnels or other conveyances which connect segments of the same stream or other waters of the state and are used to convey waters of the state. For the purposes of this GP, a discharge to a location not defined as a water of the state is not considered an outfall.
- BB. Outreach to raise awareness** – Means to introduce information that may be new to or not well understood by a target audience.
- CC. Permittee** - Means a municipality that owns or operates the storm sewer system authorized under this GP.
- DD. Permittee Specific DEP Order** – Means a document issued by the Department, following a formal public comment period, that establishes a list of required actions and corresponding schedules of compliance for a limited number of BMPs associated with the implementation of the GP.
- EE. Person** - Means an individual, firm, corporation, municipality, quasi-municipal corporation, state agency, federal agency or other legal entity which creates, initiates, originates or maintains a discharge authorized by this GP.
- FF. Point source** - See “**Direct Discharge**”. For the purposes of this GP, the definitions of “Point source” and “Direct Discharge” are identical.
- GG. Redevelopment** - “Redevelopment” means an activity, not including maintenance, undertaken to redevelop or otherwise improve property in which the newly developed area is located within the same footprint as the existing developed area.
- HH. Regulated Small MS4** - Means any Small MS4 authorized by this General Permit or the general permits for the discharge of stormwater from MDOT and MTA small MS4s or state or federally owned or operated small MS4s including all those located partially or entirely within an UA. A list of these regulated small MS4s owned or operated by municipalities is included in Appendix A of this GP.

PART II. Definitions (cont'd)

- II. Small MS4** - Means any MS4 that is not already covered by the Phase I MS4 stormwater program including municipally owned or operated storm sewer systems, state or federally-owned systems, such as colleges, universities, prisons, military bases and facilities, and transportation entities such as MDOT and MTA road systems and facilities. See also 40 CFR 122.26(b)(16).
- JJ. Stormwater** - Means the part of precipitation including runoff from rain or melting ice and snow that flows across the surface as sheet flow, shallow concentrated flow, or in drainage ways.
- KK. Stormwater Issue of Significance (SIS)** – Means any local, regional or statewide issue that must be addressed in order to improve water quality in receiving water bodies. SIS can include single pollutants or multiple pollutants as well as certain actions (increased impervious cover, lack of community awareness, construction, agricultural impacts, etc.) conditions (lack of infiltration, treatment at the source, etc.) or phenomena (development pressure, urban sprawl, flooding, urbanization, pH/acidification, etc.).
- LL. Stormwater Management Plan (SWMP)** - Means a written plan developed, implemented, and enforced by a permittee. The SWMP defines the specific BMPs that will be implemented by the permittee under each of the six MCMs set forth in Part IV of the GP, which are designed to reduce the discharge of pollutants from the MS4 to the maximum extent practicable (MEP). The SWMP defines: the measurable goal(s) by which each BMP will be evaluated; the person(s) responsible for implementing each BMP, and; the date by which each BMP will be implemented.
- MM. Stormwater Pollution Prevention Plan (SWPPP)** - Means a written plan developed and implemented for select municipal operations to reduce or eliminate pollutants as described in this GP.
- NN. Total Maximum Daily Load (TMDL)** – Means the sum of the individual waste load allocations (WLAs) for point sources and load allocations (LAs) for non-point sources, natural background and a margin of safety. If a receiving water has only one point source discharger, the TMDL is the sum of that point source WLA plus the LAs for any nonpoint sources of pollution and natural background sources, tributaries, or adjacent segments. TMDLs can be expressed in terms of either mass per time, toxicity, or other appropriate measure. If BMPs or other nonpoint source pollution controls make more stringent load allocations practicable, then waste load allocations can be made less stringent. Thus, the TMDL process provides for nonpoint source control tradeoffs.
- OO. Urban Impaired Stream** - Means a stream that fails to meet water quality standards because of effects of stormwater runoff from developed land. Urban Impaired Streams are those streams identified in Appendix B of this GP.

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PART II. Definitions (cont'd)

- PP. Urban Runoff** - Means stormwater runoff from an Urbanized Area, that may contain elevated levels of pollutants such as hydrocarbons, chlorides, heavy metals and nutrients which may cause or contribute to a waterbody's impairment. In many instances flow such as frequent elevated storm flows, low base flows, and high temperatures will also be significant contributors to a waterbody's impairment.
- QQ. Urbanized Area (UA)** - Means the area of the State of Maine so defined by the inclusive sum of the 2000 decennial census and latest decennial census (2010) by the U.S. Bureau of the Census.
- RR. Waste Load Allocation (WLA)** – Means the portion of a receiving waters loading capacity that is allocated to one of its existing or future point sources of pollution. WLAs constitutes a type of water quality based effluent limitation.
- SS. Waters of the State** - Means any and all surface waters and subsurface waters that are contained within, flow through, or under or border upon this state or any portion of the state, including the marginal and high seas, except such waters as are confined and retained completely upon the property of one person and do not drain into or connect with any other waters of the state, but not excluding waters susceptible to use in interstate or foreign commerce, or whose use, degradation or destruction would affect interstate or foreign commerce.

Part III. Procedure**A. Obtaining Coverage To Discharge.****1. Public Notice**

Applicant Public Notice. Applicants are required to publish a public notice that the NOI and a SWMP are being filed with the Department. The notice must be published **within** the 30 calendar-day period prior to the NOI being sent to the Department. The notice must be published in the legal advertisement section of a daily or weekly newspaper having general circulation in the area where the discharges authorized by this GP will occur and by making the notice available on the municipality's official internet web site. Applicants are required to provide a letter of notice to all regulated small MS4s into which the MS4 discharges, and also to persons who have requested to be notified or interested persons to the respective applicants.

- 2. NOI submission.** The operator of any regulated small MS4 that initiates, creates, originates or maintains a discharge described in Part I of this GP and that wishes to obtain coverage under this GP and a permittee specific DEP Order must file a NOI with the Department that meets the requirements of this GP not later than March 31, 2021. The applicant must file the NOI using a form(s) provided by the Department. The applicant must sign the NOI in accordance with this section. New permittee's seeking coverage under this GP may submit a NOI to the Department at any time during the 5-year term of this GP. By submitting a signed NOI, the applicant agrees to comply with the terms and conditions of this GP and any applicable permittee specific DEP Order. The applicant must register one set of NOI forms for all discharges from the regulated small MS4 within the UA that are operated by the municipality.

A NOI must be filed with the Department electronically via e-mail or via regular mail at the following address:

MS4 Program Manager
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017
e-mail: rhonda.poirier@maine.gov.

- a. **Signatory Requirements.** All NOIs, reports, certifications or information either submitted to the Department, or that this GP requires to be maintained by the permittee, must be signed and certified in accordance with *Waste Discharge Licenses*, 06-096 CMR 521(5) (effective date January 23, 2001).

All permit applications must be signed as follows:

1. For a municipality, the signature must be by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

Part III. Procedure

- (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 the USEPA).
- b. **Reports** - All reports required by permits, and other information requested by the Department must be signed by a person described in paragraph (2)(a)(1) of this section, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
- 1. The authorization is made in writing by a person described in paragraph (a) of this section;
 - 2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the permittee, municipality or regulated MS4, (A duly authorized representative may thus be either a named individual or any individual occupying a named position).
 - 3. The written authorization is submitted to the Department.
- c. **Certification.** Any person signing a document under paragraph (a) or (b) of this section must make the following 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.

Part III. Procedure (cont'd)

3. Contents of NOI.

- a. **NOI Form.** The NOI must be filed on a form(s) provided by the Department and at a minimum, must include the following.
 - i. Name of the municipality and the name, title, address, email address, and telephone number of the chief elected official or principal executive officer.
 - ii. Name, address, email address, and telephone number of the primary municipal contact person responsible for the stormwater management program.
 - iii. Permit number assigned to the municipality under the previous Department MS4 permit, if any.
 - iv. Name of the receiving stream(s), wetland(s) or waterbody(s) to which the MS4 discharges, and a list of the impaired waterbodies which receive stormwater from the MS4.
 - v. An estimate of the area in square miles, of the UA.
 - vi. A copy of the SWMP detailing how the permittee will comply with the terms and conditions of this GP.

The Department may require an applicant to submit additional information that the Department deems reasonably necessary to evaluate the consistency of the subject activity with the requirements for authorization under this GP.

4. **Public Comment.** The Department will provide the public with an opportunity for comment on or request a public hearing on the contents of the submitted NOIs and the SWMPs by making the information available on the Department's internet site shortly after the NOI has been deemed complete for processing. Pursuant to Department rule 06-096 CMR Chapter 2, *Rule Concerning the Processing of Applications And Other Administrative Matters*, a request for a hearing on an application (NOI in this case) must be received by the Department, in writing, no later than 20 days after the NOI is accepted as complete for processing. The request must indicate the interest of the person filing the request and specify the reasons why a hearing is warranted. The public comment period on the NOI and SWMP documents is a minimum of 30 calendar days. Based on a review of the NOI, SWMP or other information, the Department may extend the public comment period, require additional information or may deny coverage to discharge under this GP and require submission of an application for an individual or alternative MEPDES permit.

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General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

Part III. Procedure (cont'd)

5. **Action by Commissioner.** The Commissioner will return as incomplete any NOI that does not satisfy the requirements of Part III (A)(3) of this GP.
 - a. The Commissioner may deny coverage to discharge under this GP if more than 30 calendar days have elapsed following the applicant's receipt of a written request by the Commissioner that the applicant submit additional information required pursuant to this GP and the applicant has not timely and completely submitted such information.
 - b. The Commissioner will deny coverage to discharge under this GP if the subject activity is ineligible for this GP, if the applicant cannot or is unlikely to comply with this GP, or for any other reason provided by law.
 - c. The Commissioner will grant coverage to discharge under this GP if the SWMP, in combination with the permittee specific DEP Order is consistent with the requirement to reduce pollutants under the Department's standards to protect water quality and to satisfy the appropriate water quality requirements of the Clean Water Act.
6. **Authorization to Discharge.** The applicant is authorized to discharge under the terms and conditions of this GP and permittee specific DEP Order when the Commissioner issues a Department Order granting said coverage. Granting or denying coverage to discharge under this GP and permittee specific DEP Order must be in writing.
7. **Effect of Denial of Coverage To Discharge.** Denial of coverage under this GP constitutes notice to the applicant that the subject activity may not lawfully be conducted or maintained without issuance of an individual MEPDES permit or authorization to discharge under an alternative GP. Denial of coverage under this GP must be in writing.
8. **Permittee Specific DEP Order.** 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. The permittee specific DEP Order will be subject to a formal 30-day public comment period. New permittee's seeking coverage under this GP may submit a NOI to the Department at any time during the 5-year term of this GP.

Part IV. Requirements

The permittee must at all times continue to meet the requirements for authorization set forth in this GP and in the permittee specific DEP Order. In addition, the permittee must ensure that authorized discharges and activities are conducted in accordance with the following required conditions.

A. Initial Stormwater Management Plan (SWMP). The permittee must develop an initial SWMP to be submitted with the NOI for coverage under this GP consistent with the requirements of this section. The SWMP must describe how it will implement the six Minimum Control Measures (MCMs), set forth in Part IV(C) of this GP, and how the permittee will implement the requirements of Part IV(D) of the GP.

1. Stormwater Management Plan Requirements.

a. For each of the six MCMs in Part IV(C), the following information must be included:

1. The measurable goal(s) by which each best management practice (BMP) will be evaluated;
2. The person(s) or position(s) responsible for implementing each BMP; and
3. The date by which each BMP will be implemented including as appropriate, timelines and milestones for implementation of BMPs.

b. The SWMP must also address the requirements of Part IV(D) for discharges to waters with EPA-approved TMDLs and to waters that are listed as Urban Impaired Streams.

Part IV. Requirements

B. 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 SWMP must include all information required in Part IV(A)(1) of the GP and include all applicable written standard operating procedures (SOPs), inspection forms for all applicable MCMs and notification letters to inter-connected MS4s. This SWMP must be signed in accordance with the signatory requirements in Part III (A)(2)(a).

- 1. Plan availability.** The permittee must have a signed copy of the SWMP available-at the municipal office and on the official municipal web site if there is a municipal website and must make a copy of the SWMP available to the following immediately upon request;
 - a. Department or U.S. Environmental Protection Agency (EPA) personnel upon request.
 - b. In the case of a regulated small MS4 adjacent to or interconnected with the permittee's storm sewer system, to the operator of that regulated small MS4;
 - c. In the case of a regulated small MS4 stormwater discharge to a water supply watershed, to the public water supply company; and
 - d. Members of the public.
- 2. Keeping Plans Current.** The permittee must keep the SWMP current. The permittee must allow the public the opportunity to comment on changes made to the SWMP consistent with this Part at a minimum of once per year (1/Year).

Part IV. Requirements (cont'd)

The SWMP must be amended if the Department or the permittee determines that:

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

The Department will notify the permittee in writing if the Department determines that the SWMP must be amended to comply with the terms and conditions of the GP and the permittee specific DEP Order. Within 30 calendar days of such notification, unless otherwise specified by the Department in writing, the permittee must respond in writing to the Department indicating how the permittee plans to modify the SWMP to address the Departments comments. Within 90 calendar days of the permittee's written response or within 120 calendar days of the Department's original notification, whichever is less, unless otherwise specified by the Department in writing, the permittee must revise the SWMP and submit it to the Department for final review.

For BMPs in the SWMP that are not required to comply with this GP or the permittee specific DEP Order, the BMPs and or implementation schedule may be amended as appropriate without the need for public comment. Changes must be submitted to the Department in the Annual Report following the permit year the change(s) were made.

Part IV. Requirements (cont'd)

C. Minimum Control Measures (MCMs). For each MCM, the permittee must define specific BMPs; designate a person(s) or position(s) responsible for each BMP; define a time line for implementation of each BMP; and define measurable goals for each BMP. The MCMs to be included in the SWMP are as follows.

1. MCM1 – Education/Outreach Program (Program)

The permittee must at a minimum develop and implement an ongoing Education/Outreach Program addressing stormwater discharges and impacts on water bodies and steps that can be taken to reduce pollutants in stormwater runoff. The program must be designed to address stormwater issues of significance. The ultimate objective of the program is to change behavior of the target audiences so that pollutants in stormwater are reduced.

- a. The permittee must develop an outreach program as part of its SWMP and implement it over the term of the permit.
- b. The education/outreach program must define the target audiences, specific messages, message delivery/distribution tools, evaluation methods and an implementation schedule for each target audience.
- c. The permittee may partner with other MS4s, community groups, or watershed associations to implement the education/outreach program to meet this GP requirement.
- d. The education/outreach program must define the awareness and behavior change goals and identify the party or parties responsible for program implementation.
- e. The permittee may use existing materials if they are appropriate for the target audience and message the permittee chooses to deliver, or the permittee may develop its own outreach materials.
- f. The permittee must identify methods it will use to evaluate the effectiveness of each awareness and behavior change campaign. Any message or delivery mechanism found ineffective or of unsatisfactory efficacy, must be modified accordingly.
- g. The education/outreach program must include the following as a minimum:
 1. An Outreach to Raise Awareness Campaign of storm water pollution issues targeted at the general public and one additional audience: municipal; commercial; development/construction; or institutions. Outreach to raise awareness is defined as a means to introduce information that may be new to or not well understood by the target audience. Campaigns to raise awareness are typically delivered broadly.

Part IV. Requirements (cont'd)

The permittee will implement a minimum of two (2) awareness campaigns during the term of this permit. One campaign shall be targeted to the general public and another campaign shall be targeted to one of the audiences cited above. Each campaign will be delivered using a minimum of three (3) outreach tools per year. These outreach tools may include: printed materials such as brochures, posters or newsletters; electronic materials such as websites, e-mail, or online ads; mass media such as newspaper articles or public service announcements (radio or television); social media such as Facebook or Twitter, public events or meetings or displays in public areas such as town/city hall.

2. An Outreach to Change Behavior Campaign so that pollutants in storm water are reduced. Outreach to Change Behavior means to promote and reinforce desirable behaviors designed to reduce storm water pollution. Campaigns to change behavior are typically delivered to small, targeted segments of the population through direct communication.

The permittee must promote a minimum of one (1) behavior change per permit term and shall be directed to two (2) audiences annually and using a minimum of three (3) different outreach tools per year. Campaigns for behavior change may be delivered through targeted workshops, incentives that encourage desired behavior, pledge drives to commit to desired behaviors, or other methods that effect behavior change. Printed materials such as brochures, posters or newsletters; electronic materials such as websites; mass media such as newspaper articles or public service announcements (radio or television); social media such as Facebook or Twitter, or displays in public areas such as town/city hall may also be used to promote the desired behavior.

- h. The program must show evidence of focused campaigns for specific audiences such that outreach tools and messages are appropriate for the audiences. The program must also show evidence that progress toward the defined awareness and behavior goals of the program has been achieved. The permittee must identify methods that it will use to evaluate the effectiveness of each outreach campaign (awareness two (2) campaigns and behavior change one (1) campaign). If appropriate, evaluation efforts may evaluate more than one campaign. For example, the same evaluation effort may document both the level of the general public's stormwater awareness and the targeted audience's current behavior.

Any methods used to evaluate the effectiveness of the program must be tied to the defined goals of the program and the overall objective of changes in behavior and awareness. To evaluate effectiveness the permittee must conduct a baseline evaluation prior to each campaign. The baseline evaluation must be relevant and appropriate and may have occurred in the previous permit cycle or in the current permit cycle. The baseline evaluation is to be followed by an evaluation in year five of this permit to assess the overall effectiveness of the outreach program.

Part IV. Requirements (cont'd)

- i. The permittee must document in each Annual Compliance Report: the messages for each audience; the methods of distribution; the outreach tools used, the measures/methods used to determine the on-going effectiveness of the campaigns, and any changes planned based on the measures of effectiveness.

2. MCM2 - Public involvement and participation

The objective of this minimum control measure is to involve the public in both the planning and implementation process of improving water quality and reducing storm water quantity via the storm water program. A program planned with a stakeholder group is more likely to be successful in achieving its goals. The public can provide valuable input and assistance to a MS4's municipal storm water management program. Therefore, the public must be given opportunities to play an active role in both the development and implementation of the program. An active and involved community is crucial to the success of a municipal storm water management program because it allows for broader public support, additional expertise and a conduit to other programs. Community members are also more likely to apply these lessons/BMPs at home.

- a. The permittee must comply with applicable state and local public notice requirements using effective mechanisms for reaching the public and comply with the public notice requirements of the Maine Freedom of Access Act, 1 M.R.S. §§ 401 et seq. ("FOAA") when the permittee involves stakeholders in the implementation of this GP. The permittee must document the meetings and attendance in the annual report as a way of measuring this goal.
- b. The permittee or regional storm water group of which the permittee is a member must annually host/conduct or participate in a public event (for example, storm drain stenciling, stream clean-up, household hazardous waste collection day, volunteer monitoring, neighborhood educational events, conservation commission outreach program, Urban Impaired Stream outreach program, or adopt a storm drain or local stream program). The event must include a pollution prevention and/or water quality theme. The target audience does not need to be the entire urbanized area but should be aimed at a segment of the population that the permittee wishes to reach. The permittee is encouraged to plan this event and consult with the Department to ensure it will satisfy this GP's requirements.

Part IV. Requirements (cont'd)**3. MCM3 - Illicit Discharge Detection and Elimination (IDDE) Program**

Each permittee must implement and enforce a program to detect and eliminate illicit discharges and non-stormwater discharges, as defined in 06-096 CMR 521(9)(b)(2), except as provided in paragraph h of this section. The program must address illicit discharges in the following four components: 1) Procedures for prioritizing watersheds, 2) procedures for tracing the source of an illicit discharge, 3) procedures for removing the source of the discharges, and 4) procedures for program evaluation and assessment. The period between identification and elimination of an illicit discharge is not a grace period. Discharges from an MS4 that are mixed with an illicit discharge are not authorized by this GP and remain unlawful until eliminated.

- a. The permittee must continue to implement a non-stormwater discharge ordinance that prohibits the discharge of non-stormwater discharges and provides for the implementation of appropriate enforcement procedures and actions.
- b. The IDDE program must include a written IDDE Plan to address any discharge that is not uncontaminated groundwater, water from a natural resource or an allowable non-stormwater discharge. The plan must address dumping that results in illicit discharges to the MS4. The IDDE plan must set forth all written procedures developed in accordance with the requirements listed in this section including:
 - i. A reference or citation of the authority the permittee will use to implement all aspects of the IDDE program.
 - ii. Clearly identify in the written IDDE Plan the responsibilities with regard to eliminating illicit discharges. The written IDDE Plan must identify the lead municipal agency(ies) or department(s) responsible for implementing the IDDE Program as well as any other agencies or departments that may have responsibilities for aspects of the program (e.g., board of health responsibilities for overseeing septic system construction; sanitary sewer system staff; inspectional services for enforcing plumbing codes; town counsel responsibilities in enforcement actions, etc.). Where multiple departments and agencies have responsibilities with respect to the IDDE program, specific areas of responsibility must be defined and processes for coordination and data must be established and documented.
 - iii. Written procedures for dry weather outfall inspections and wet weather assessments which must be consistent with Part IV(3)(e) and Part IV(3)(f) respectively, of this GP.

Part IV. Requirements (cont'd)

- iv. Steps that must be taken when a potential illicit discharge is identified (whether during dry weather inspections, during routine work, during opportunistic inspection of other infrastructure or through other methods) to perform an initial investigation to identify the source(s) of discharge, including but not limited to: efforts to identify the nature of the discharge; source investigation; reporting; clean up; corrective actions/elimination; and enforcement.
- v. Steps that must be taken, upon verification of the source of the illicit discharge, to notify all responsible parties for any such discharge and require immediate cessation of improper disposal practices in accordance with its legal authorities. Where elimination of an illicit discharge within 60 calendar days of its identification and verification as an illicit discharge is not possible, the permittee must establish an expeditious schedule for its elimination and report the dates of identification and schedules for removal in the permittee's annual reports. The permittee must immediately commence and continue actions identified in the schedule as necessary for elimination. The permittee must diligently pursue actions identified in the schedule to be consistent with the intent of this GP. In the interim, the permittee must take all reasonable and prudent measures to minimize the discharge of pollutants to and from the MS4, including follow-up screening and inspection to confirm permanent elimination of the discharge.
- vi. A Quality Assurance Project Plan (QAPP) describing the procedures to be used during the investigation and monitoring of those outfalls identified as flowing during outfall inspections.
- c. Permittees that can demonstrate compliance with an individual Maine Pollutant Discharge Elimination System (MEPDES) permit and or Maine Waste Discharge License (WDL) conditions within their Urbanized Areas and which result in Sanitary Sewer Evaluation Surveys (SSES) and/or written Capacity, Management, Operations and Maintenance (CMOM) plans may utilize these programs to support the IDDE requirements of this GP at the discretion of the Department, provided the sanitary sewer conveyance and/or treatment provider supports this finding.
- d. Permittees must maintain a map(s) of their municipally-owned or operated storm sewer system. The map(s) must show the location of all stormwater catch basins, connecting surface and subsurface infrastructure and depict the direction of in-flow and out-flow pipes, and the locations of all discharges from all stormwater outfalls operated by the regulated small MS4 to receiving waters or to an interconnected MS4 and the name of the receiving water for each outfall. Each catch basin must be uniquely identified to facilitate control of potential illicit discharges, and proper operation and maintenance of these structures.

Permittees must continue to keep their map(s) current and ensure that maps are reviewed for any updates at least annually. Permittees may choose to utilize paper or electronic maps for their storm sewer system. The permittee is not required to maintain maps of their sanitary sewer system for compliance with this GP.

Part IV. Requirements (cont'd)

- e. Permittees must implement a dry weather outfall inspection program. This inspection program-must include:
 - i. For each outfall, the following information must be included: type (e.g. pipe or ditch), material, size of conveyance, the name and location of the nearest named waterbody to which the outfall eventually discharges. Each outfall must have a unique identifier.
 - ii Conducting visual dry weather inspections on 100% of their identified outfalls during the five-year term of this GP.
 - iii. Outfalls that are inaccessible due to safety concerns are not required to be inspected but a substitute inspection must be conducted of the first (i.e., closest) accessible inspection location within the stormwater system (e.g., catch basin, manhole, pipe, etc.) that drains to the inaccessible outfall.
 - iv. Where dry weather flow is present the permittee must sample the discharge to determine if the discharge is an illicit discharge and then must investigate until either a source is identified, or it has been determined that the evidence of the illicit discharge is due to naturally occurring source(s).
 - 1. Sampling and analysis must include, but is not limited to:
 - a. *E.coli*, enterococci, total fecal coliform or human bacteroides;
 - b. Ammonia, total residual chlorine, temperature and conductivity; and
 - c. Optical enhancers or surfactants.

All analyses can be performed with field test kits or field instrumentation and are not subject to 40 CFR Part 136 requirements given the sampling is for investigative purposes and not to determine compliance with this GP. Sampling for ammonia and surfactants must use sufficient sensitive methods to detect said parameters at or below the minimum reporting concentrations as follows: 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).

Final Permit

General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

Part IV. Requirements (cont'd)

- v. Where dry weather flow at an outfall does not exhibit evidence of an illicit discharge, the permittee must take steps to determine and confirm that flow during dry weather conditions is only uncontaminated groundwater, water from a natural resource, or an allowable non-stormwater discharge that has entered the system and collect at least one (1) sample per the 5-year permit term in accordance with the protocols set forth in the approved QAPP and analyzed for the parameters listed in Part IV(C)(3)(e)(iv)(1).
- vi. Outfalls that are flowing during dry weather are exempt from the dry weather investigation required in Part IV(C)(3)(e)(iv) under any of the following conditions:
 1. The outfall is associated with roadway drainage in undeveloped areas with no dwellings and no sanitary sewers,
 2. The outfall is associated with only subsurface drainage for any of the following: an athletic field, a park or undeveloped green space and associated parking without services,
 3. The outfall is from cross-country drainage that neither cross nor are in proximity to sanitary sewer alignments through undeveloped land,
 4. The contributing pipes to the outfall have been televised in a previous permit cycle and determined to be structurally sound with no illicit connections or connections from structures that could contribute an illicit discharge, and no new construction or redevelopment has occurred in the outfall drainage area since the screening, or
 5. The outfall was screened in accordance with Part IV(C)(3)(e)(iv) in a previous permit cycle and no new construction or redevelopment has occurred in the outfall drainage area since the screening.
- vii. The permittee may rely on screening conducted under previous permits to the extent it meets the requirements in Part IV(C)(3)(e)(iv) and no new construction or redevelopment has occurred in the outfall drainage area since the screening.
- viii. Steps that must be taken upon verification of the source of the illicit discharge to locate, identify and eliminate the illicit discharge within the UA as expeditiously as possible.

Part IV. Requirements (cont'd)

- f. Prior to the expiration date of this GP, permittees must perform a wet weather assessment for the potential for illicit discharges during wet weather events. The assessment will vary by permittee and utilize data from existing studies, including (but is not limited to):
 - i. Areas within the MS4 that have combined sewer systems;
 - ii. Sanitary sewer systems located in a common trench with stormwater infrastructure, particularly those with known infiltration;
 - iii. Subsurface wastewater disposal systems that are 20 years old or more, or those in areas known to have experienced recent malfunctions or failures;
 - iv. Municipally-owned dog parks;
 - v. Complaints of sewage odor at a stormwater outfall during wet weather events;
 - vi. Direct discharge from the stormwater system to any of the following:
 - a. A public beach or recreational area;
 - b. A water body impaired for bacteria;
 - c. A shellfish bed; and/or
 - d. A drinking water supply.

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

On or before the expiration date of this GP, the permittee must identify these wet weather outfalls in its written IDDE plan and identify the wet weather outfalls targeted 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. Should the permittee complete the IDDE plan prior to the expiration date of the GP and permittee specific DEP Order, the permittee must implement the wet weather monitoring upon completion of the update IDDE plan update.

Final Permit

General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

Part IV. Requirements (cont'd)

- g. Permittees are not required to report individual Sanitary Sewer Overflows (SSOs) separately from the sanitary sewer conveyance and/or treatment provider, however, permittees are required to summarize the SSO events that discharge to the MS4 in their annual reports. Permittees must work cooperatively with that provider to identify any potential source of pollution to the MS4 from an SSO.
- h. Allowable Non-Stormwater Discharges. This GP authorizes the following non-stormwater discharges. If the permittee identifies any of these sources as significant contributors of pollutants to the MS4, then the permittee must implement measures and/or cooperate with responsible dischargers to control these sources so they are no longer significant contributors of pollutants. The permittee must identify in its SWMP if it has identified any of these sources as a significant contributor of pollutants to the MS4.
- landscape irrigation
 - diverted stream flows
 - rising ground waters
 - uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20))
 - uncontaminated pumped ground water
 - uncontaminated flows from foundation drains
 - air conditioning and compressor condensate
 - irrigation water
 - flows from uncontaminated springs
 - uncontaminated water from crawl space pumps
 - uncontaminated flows from footing drains
 - lawn watering runoff
 - flows from riparian habitats and wetlands
 - residual street wash water (where spills/leaks of toxic or hazardous materials have not occurred, unless all spilled material has been removed and detergents are not used), and
 - hydrant flushing and firefighting activity runoff
 - water line flushing and discharges from potable water sources
 - individual residential car washing
 - dechlorinated swimming pool discharges

Part IV. Requirements (cont'd)**4. MCM4 – Construction Site Stormwater Runoff Control**

Each permittee must implement and enforce a program to minimize or eliminate pollutants in any stormwater runoff to the regulated small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of stormwater discharges from construction activity disturbing less than one acre must be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more.

- a. The permittee must develop and implement a construction site runoff program that includes the following elements:
 - i. An ordinance or other regulatory mechanism that requires the use of erosion and sediment control BMPs at construction sites consistent with the minimum standards outlined in Appendix C, *Erosion and Sedimentation Control, Inspections and Maintenance and Housekeeping* of this GP. Also see the Department's website for a guidance document entitled *Maine Erosion and Sediment Control Practices Field Guide For Contractors* to assist contractors and municipalities in developing BMPs for the ordinance or other regulatory mechanism. Permittees who have an existing ordinance must evaluate the ordinance and update it as needed within one (1) year of the effective date of this GP to provide the permittee with the necessary enforcement authority. Those permittees without an existing ordinance must develop an ordinance within one (1) year of the effective date of this GP and have an approved ordinance in place with the necessary enforcement authority within two (2) years of the effective date of this GP.
 - ii. Procedures for site plan review that incorporate consideration of potential water quality impacts, erosion control, waste storage, and other elements of this MCM, the ability for the public to comment on such reviews at publicly-noticed meetings, and procedures to consider information submitted by the public.
 - iii. Procedures for notifying construction site developers and operators of the requirements for registration under the Maine Construction General Permit and Chapter 500, Stormwater Management.
 - iv. Procedures for construction site operations to control waste such as discarded building materials, concrete truck wash-outs, chemicals, litter and sanitary waste at the construction site that may cause adverse impacts to water quality.

Part IV. Requirements (cont'd)

- v. Documentation of construction activity that disturbs one or more acres within the urbanized area including:
 - a. Written (hardcopy or electronic) procedures for site inspections and enforcement of erosion and sediment control measures. Inspections are to be conducted by the permittee or third-party inspector. The procedures must clearly define who is responsible for site inspections as well as who has authority to implement enforcement procedures. The program must provide that the permittee may, to the extent authorized by law, impose sanctions to ensure compliance with the local program.
 - b. Inspections of construction sites to ensure erosion and sediment controls are in place and sediment is contained within the project site. Inspections must be completed as follows:
 - i. A minimum of three inspections must be completed during the active earth-moving phase of construction.
 - ii. A minimum of one inspection must be completed annually until a project reaches substantial completion, as defined by the MS4 permittee (i.e., municipality).
 - iii. One of the three inspections must be conducted at project completion to ensure that the site reached permanent stabilization and all temporary erosion and sediment controls have been removed.
 - iv. Documentation of construction inspections, enforcement action and corrective actions taken.

5. MCM5 – Post-Construction Stormwater Management in New Development and Redevelopment.

Each permittee must implement and enforce a program to address post construction 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, that discharge into the MS4.

- a. The permittee must promote strategies which include a combination of structural and/or non-structural BMPs appropriate to prevent or minimize water quality impacts.
 - i. The permittee must implement a procedure for notifying site developers to consider Low Impact Development techniques.

Part IV. Requirements (cont'd)

- b. To ensure adequate long-term operation and maintenance of post construction BMPs, each permittee must have and implement a post construction discharge ordinance, or other regulatory mechanism. This ordinance or other regulatory mechanism must contain provisions as follows:
 - i. Require that the owner or operator of a post construction BMP provide the permittee with an annual report, completed by a qualified inspector documenting that all on-site BMPs are adequately maintained and functioning as intended, and
 - ii. Require that if a post construction BMP requires maintenance, the owner or operator must provide to the permittee, a record of the deficiency and corrective action(s) taken in no later than 60 days following the date the deficiency was identified. If 60 days is not possible, then the permittee must establish an expeditious schedule to complete the maintenance and establish a record of the deficiency and corrective action(s) taken.

6. MCM6 - Pollution Prevention/Good Housekeeping for Municipal Operations.

The objective of this program is to mitigate or eliminate pollutant runoff from municipal operations on property that is owned or managed by the permittee and located within the UA.

- a. Permittees must maintain an inventory of all municipal operations conducted in, on, or associated with facilities, buildings, golf courses, cemeteries, parks and open space owned or operated by the permittee that have the potential to cause or contribute to stormwater or surface water pollution.
- b. Permittees must implement written (hardcopy or electronic) operation and maintenance (O&M) procedures for all municipal operations identified in (a) above to reduce stormwater pollution to the maximum extent practicable. The O&M plan must address stormwater treatment and controls that are used to achieve compliance with the conditions of this GP.
 - i. The O&M plan must be up-to-date prior to the effective date of this GP and must be reviewed annually to iteratively improve strategies and practices to eliminate or better control pollutant discharges.
 - ii. The permittee must conduct annual employee training to prevent and reduce stormwater pollution from the municipal operations and facilities subject to this GP. The permittee must report in each of its Annual Compliance Reports on the types of trainings presented, the percentage of municipal and contract staff, and their occupation, that received training, the length of the training, and training content delivered.

Part IV. Requirements (cont'd)

- iii. The permittees must develop and implement a program to sweep all paved streets and paved parking lots maintained by the permittee at least once a year done soon after snowmelt.
- iv. The permittee must develop and implement a program to inspect catch basins and other stormwater structures that accumulate sediment. This program must include:

Developing and implementing a program to inspect all catch basins at least once every other year and, if necessary, clean catch basins and other stormwater structures that accumulate sediment and dispose of the removed sediments in accordance with current state law. The permittee must clean catch basins more frequently if inspections indicate excessive accumulation of sediment. Excessive accumulation is greater than or equal to 50 percent of the sump filled. If two consecutive inspections show excess accumulation, then the permittee must clean those CBs every year instead of every other year. If it is documented during two consecutive years of cleaning of a CB identified as accumulating excess material that there is little to no material in the sump (less than 25% of the sump) then that CB can return to the list of CBs to be inspected at least once every other year and cleaned more often if two consecutive inspections show excess accumulation.

- c. Permittees must evaluate and implement a prioritized schedule, as necessary, for repairing or upgrading the conveyances, structures and outfalls of the regulated small MS4.
- d. Permittees must implement written (hardcopy or electronic) procedures outlined in a stormwater pollution prevention plan (“SWPPP”) for the following operations or facilities that are owned or operated by the permittee (unless the facility is currently regulated under Maine’s Industrial Stormwater Program): public works facilities; transfer stations; and school bus maintenance facilities. Implementation of this SWPPP must address long-term operation of structural and non-structural controls that reduce stormwater pollution to the maximum extent practicable.

1. Control measures

The permittee must select, design, install and implement control measures, adhering to good engineering practices and manufacturer’s specifications, to minimize pollutant discharges from all potential sources. The control measure(s) selected must be capable of meeting the non-numeric technology-based effluent limitations established in this section. Where more than one standard exists for a specific pollutant, compliance with this GP and the control measure design must be based on the most stringent standard. In selecting control measures, the permittee must consider:

Part IV. Requirements (cont'd)

- a. The quantity and nature of the pollutants and their potential to impact the water quality of the receiving waters;
- b. Preventing stormwater from coming into contact with polluting materials;
- c. Using control measures in combination;
- d. Assessing the type and quantity of pollutants, including their potential to impact receiving water quality;
- e. Minimizing impervious areas at the facility and infiltrating runoff onsite (including bioretention cells, green roofs, and pervious pavement, among other approaches) in accordance with State laws and regulations;
- f. Attenuating flow using open vegetated swales and natural depressions;
- g. Conserving and/or restoring riparian buffers; and
- h. Using treatment interceptors (*e.g.*, swirl separators and sand filters).

2. Non-numeric effluent limitations

The permittee must comply with the following non-numeric effluent limitations.

- a. Minimize exposure. The permittee must minimize the exposure of manufacturing, processing, and material storage areas (including, but not limited to, loading and unloading, storage, disposal, cleaning, maintenance, and fueling operations) to rain, snow, snowmelt, and runoff in order to minimize pollutant discharges. Unless impractical, the permittee must also:
 - i. Use grading, berming or curbing to prevent runoff of contaminated flows and divert run-on away from these areas;
 - ii. Locate materials, equipment, and activities so that potential leaks and spills are contained or able to be contained or diverted before discharge;
 - iii. Clean up spills and leaks promptly using dry methods (*e.g.*, absorbents) to prevent the discharge of pollutants;
 - iv. Properly dispose of materials used for spill or leak clean up to prevent used clean up materials from being a source of pollutants in stormwater;
 - v. Store leaky vehicles and equipment indoors or, if stored outdoors, use drip pans and absorbents;
 - vi. Use spill/overflow protection equipment;
 - vii. The washing of new or used vehicles or equipment is allowed with the following prohibitions and recommended best management practices:
 1. Engine, undercarriage and transmission washing is prohibited. Cleaning operations should minimize the detachment of paint residues, heavy metals or any other potentially hazardous materials from surfaces.

Part IV. Requirements (cont'd)

2. Vehicle and equipment washing should occur, where possible, on an impermeable surface (i.e., concrete, asphalt, plastic or other) and utilize an area that extends to a minimum of four (4) feet on all sides of the vehicle or equipment so that wash water and overspray falls initially on the impermeable surface. From the impermeable surface, wash water should then be directed to a vegetated area.
 3. Vehicles and equipment should not be washed near uncovered repair areas or chemical storage areas such that chemicals can be transported in wash water runoff. All wash water runoff should drain away from a shop repair or chemical storage area.
 4. Wash water from cleaning the interior of truck trailers and other large commodity carrying containers must be collected and discharged to a POTW or treated in a closed-loop, wash water recycling system.
 - viii. Drain fluids from equipment and vehicles that will be decommissioned, and, for any equipment and vehicles that will remain unused for extended periods of time, inspect at least quarterly for leaks.
 - ix. locate industrial materials and activities inside or protect them with storm resistant coverings where practical to do so.
- b. **Good housekeeping.** The permittee must keep clean all exposed areas that are potential sources of pollutants. The permittee must perform good housekeeping measures in order to minimize pollutant discharges, including but is not limited to, the following:
- i. Sweep or vacuum at regular intervals as a primary measure or, alternatively, wash down the area as a secondary measure and collect and/or treat, and properly dispose of the washdown water;
 - ii. Store materials in appropriate containers that are labeled to specify contents;
 - iii. Keep all dumpster lids closed when not in use or ensure that discharges have a control measure. For dumpsters, waste bins and roll-off containers that do not have lids and could leak, ensure that discharges have a control measure (*e.g.* sheet flow to an upland vegetated buffer). Dumpsters and roll-off containers should only be used to hold solid waste materials and never used to hold liquid wastes. This permit does not authorize any dry weather discharges from dumpsters or roll-off containers;
 - iv. Minimize the potential for waste, garbage and floatable debris to be discharged by keeping exposed areas free of such materials, or by intercepting them before they are discharged;
 - v. Site and operate snow storage and disposal areas to prevent the discharge of snow directly into surface waters and minimize discharges of pollutants from snow maintenance activities. Permittees shall minimize the use of sodium chloride or other salts when possible and evaluate opportunities for use of alternative products.

Part IV. Requirements (cont'd)

- c. **Maintenance.** The permittee must maintain all control measures that are used to achieve effective operating condition, as well as all industrial equipment and systems, in order to minimize pollutant discharges. This includes:
- i. Performing and documenting inspections and preventive maintenance of stormwater drainage, source controls, treatment systems, and equipment and systems that could fail and result in contamination of stormwater;
 - ii. Diligently maintaining non-structural control measures (*e.g.*, keep spill response supplies available, personnel appropriately trained);
 - iii. Cleaning catch basins when the depth of sediment or debris reaches 50% of the sump depth and keeping the sediment and debris surface at least six inches below the lowest outlet pipe or alternatively, establish a routine maintenance schedule such each catch basin is inspected at least once per year.
- d. **Spill prevention and response.** The permittee must minimize the potential for leaks, spills and other releases that may be exposed to stormwater and develop plans for effective response to such spills if or when they occur in order to minimize pollutant discharges. The permittee must conduct spill prevention and response measures including, but not limited to, the following:
- i. Plainly label containers 55 gallons or greater (*e.g.*, “Used Oil,” “Spent Solvents,” “Fertilizers and Pesticides”) that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur;
 - ii. Implement procedures for material storage and handling, including the use of secondary containment and barriers between material storage and traffic areas, or a similarly effective means designed to prevent the discharge of pollutants from these areas;
 - iii. Develop training on spill response procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases. As appropriate, execute such procedures as soon as possible;
 - iv. Keep adequate and accessible spill kits on-site, located near areas where spills may occur or where a rapid response can be made; and
 - v. Notify appropriate facility personnel when a leak, spill, or other release occurs.
- e. **Erosion and sediment controls.** The permittee must minimize erosion by stabilizing exposed soils at the facility in order to minimize pollutant discharges and by placing flow velocity dissipation devices in stormwater swales and ditches at discharge locations, as necessary, to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points. The permittee must also use structural and non-structural control measures, as necessary, to minimize the discharge of sediment.

Part IV. Requirements (cont'd)

- f. **Management of runoff.** The permittee must divert, infiltrate, reuse, contain, or otherwise manage stormwater runoff to minimize pollutants in the discharges.
- g. **Salt storage piles or piles containing salt.** Unless otherwise authorized by variance pursuant to *Siting and Operation of Road Salt and Sand-Salt Storage Areas*, 06-096 Code of Maine Regulations (CMR) 574 (effective December 3, 2001), the permittee must enclose or cover storage piles of salt, or piles containing salt, used for deicing or other commercial or industrial purposes, including maintenance of paved surfaces, in order to minimize pollutant discharges. This includes preventing stormwater runoff from coming into contact with covered piles. The permittee must implement appropriate measures (*e.g.*, good housekeeping, diversions, containment) to minimize exposure resulting from adding to or removing materials from the pile.
- h. **Employee training.** Annually, the permittee must train all employees who work in areas where industrial materials or activities are exposed to stormwater, or who are responsible for implementing activities necessary to meet the conditions of this permit (*e.g.*, inspectors, maintenance personnel), including all members of the facility's stormwater pollution prevention team. The permittee must ensure the following personnel understand the requirements of this permit and their specific responsibilities with respect to those requirements:
 - i. Personnel who are responsible for the design, installation, maintenance, and/or repair of controls (including pollution prevention measures);
 - ii. Personnel responsible for the storage and handling of chemicals and materials that could become contaminants in stormwater discharges;
 - iii. Personnel who are responsible for conducting and documenting monitoring and inspections pursuant to this GP; and
 - iv. Personnel who are responsible for taking and documenting corrective actions pursuant to this GP.

Personnel must be trained in at least the following if related to the scope of their job duties (*e.g.*, only personnel responsible for conducting inspections need to understand how to conduct inspections):

- v. An overview of what is in the SWPPP;
- vi. Spill response procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases, good housekeeping, maintenance requirements, and material management practices;
- vii. The location of all controls on the site required by this GP, and how they are to be maintained;
- viii. The proper procedures to follow with respect to the GP's pollution prevention requirements; and
- ix. When and how to conduct inspections, record applicable findings, and take corrective actions.

Part IV. Requirements (cont'd)

- i. **Dust generation and vehicle tracking of industrial materials.** The permittee must utilize control measures to minimize generation of dust and off-site tracking of raw, final, or waste materials. Discharges of pollutants associated with the facility's activity as the result of off-site tracking are not authorized by this GP.

3. Storm Water Pollution Prevention Plan – General Requirements

- a. **Availability of SWPPP.** The permittee must prepare a SWPPP for the facility prior to the effective date of this GP. If a permittee prepared a SWPPP for coverage under a previous version of this GP, the permittee must review and update the SWPPP to implement all provisions of this GP prior to the effective date of this GP. Upon receiving authorization under this GP, a copy of the SWPPP must be available to appropriate facility staff, Department staff, and USEPA staff. The permittee must keep a copy of the SWPPP on-site at all times for reference and review.
- b. **SWPPP preparation.** The SWPPP must be up-to-date prior to the effective date of this GP and must be prepared in accordance with good engineering practices and to industry standards. The SWPPP may be developed by either a person on the facility's staff or a third party, but it must be developed by a "qualified person" and must be certified in accordance with the signatory requirements of 06-096 CMR 521(5). A "qualified person" is a person knowledgeable in the principles and practices of stormwater controls and pollution prevention and possesses the education and ability to assess conditions at the facility that could impact stormwater quality, and the education and ability to assess the effectiveness of stormwater controls selected and installed to meet the requirements of the permit. A qualified person may include facility staff that is familiar with the facility's activities and control measures necessary to reduce or eliminate the discharge of pollutants associated with the activity.
- c. **Amended SWPPP.** The permittee must amend the SWPPP within thirty (30) calendar days of completion of any of the following:
 - i. A change in design, construction, operation, or maintenance at the facility that may have a significant effect on the discharge or potential for discharge of pollutants from the facility including the addition or reduction of industrial activity;
 - ii. Monitoring, inspections, or investigations by the permittee or by local, State, or Federal officials which determine the SWPPP is ineffective in eliminating or significantly minimizing the intended pollutants;
 - iii. A discharge under this GP that is determined by Department to cause or have the reasonable potential to cause or contribute to the violation of an applicable water quality standard.

Part IV. Requirements (cont'd)

- d. **SWPPP Contents:** This subsection describes the minimum requirements that must be addressed or contained within an acceptable SWPPP.
- i. **Stormwater Pollution Prevention Team.** The SWPPP must identify the individuals (by name or title) who comprise the facility's Stormwater Pollution Prevention Team. The Stormwater Pollution Prevention Team is responsible for assisting the facility manager in developing, implementing, maintaining and revising the facility's SWPPP. Responsibilities of each team member must be listed.
 - ii. **Nature of activities.** The SWPPP must provide a description of the nature of the activities at each facility.
 - iii. **Maps.** The SWPPP must contain a general location map with sufficient detail to identify the location of the facility and all receiving waters for all stormwater discharges. A site map depicting the following features must also be included with the SWPPP.
 1. Boundaries of the property and the size of the property in acres;
 2. Location and extent of significant structures and impervious surfaces;
 3. Directions of stormwater flow (use arrows);
 4. Locations of all stormwater control measures;
 5. Locations of all receiving waters, including wetlands, in the immediate vicinity of the facility;
 6. Locations of all stormwater conveyances including catch basins, ditches, pipes, and swales;
 7. Locations of potential pollutant sources;
 8. The location of all above ground tanks;
 9. For the purposes of the site map, identify areas of frequent spills (greater than three occurrences per year) and large spills (greater than 10 gallons) that have occurred in the last three years. All locations of fuel frequent/large spills must be documented within the SWPPP or applicable Spill Prevention Control & Counter Measure (SPCC) Plan;

Part IV. Requirements (cont'd)

10. Locations of all stormwater monitoring points;
 11. Locations of stormwater inlets, outlets, outfalls, and discharge points, with a unique identification code for each discharge point (*e.g.*, Outfall 001, 002) and an approximate outline of the areas draining to each discharge point;
 12. Locations of the following activities where such activities are exposed to precipitation:
 - fueling stations;
 - vehicle and equipment maintenance and/or cleaning areas;
 - loading/unloading areas;
 - locations used for the treatment, storage, or disposal of wastes;
 - liquid storage tanks;
 - processing and storage areas;
 - immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility;
 - transfer areas for substances in bulk;
 - machinery; and
 - locations and sources of run-on to the site from adjacent property that contains significant quantities of pollutants.
- e. **Summary of potential pollutant sources.** The SWPPP must provide a description of areas of the facility and operations where materials or activities are exposed to stormwater or from which allowable non-stormwater discharges originate. Materials or activities include but are not limited to: street sweeping, roadway construction, repair and rehabilitation, maintenance of streets and right-of-ways, snow removal and storage, chemical and material storage, fleet maintenance and storage, and fertilizer, pesticide, and insecticide application and storage of materials. Structures located in areas of activity are potential sources of pollutants.

For each separate area identified, the description must include the following.

- i. **Activities in the area.** A list of the activities exposed to stormwater and the predicted direction of flow of stormwater from each activity and outfall/discharge point.

Part IV. Requirements (cont'd)

- ii. **Pollutants.** A list of pollutants associated with each identified activity, which could be exposed to rainfall or snowmelt and could be discharged from the facility. The pollutant list must include all significant materials that have been handled, treated, stored or disposed, and that have been exposed to stormwater in the three years prior to the date you prepare or amend your SWPPP.
- iii. **Spills and leaks.** The permittee must document where potential spills and leaks could occur that could contribute pollutants to stormwater discharges, and the corresponding outfalls/discharge points that would be affected by such spills and leaks. The permittee must document all frequent or large spills and leaks of oil or toxic or hazardous substances that actually occurred at exposed areas, or that drained to a stormwater conveyance, in the three years prior to the date the SWPPP was prepared or last amended. The permittee must document the circumstances leading to the release and actions taken in response to the release and the measures taken to prevent the recurrence of such releases.
- iv. **Wastewater or process water containment.** Any stationary above ground tank, container, or container storage area used for the storage of wastewater or process water (does not include deicing materials for winter road maintenance) that has the potential to discharge to surface waters or a stormwater conveyance during a malfunction must be held in a secondary containment device capable of containing 100% of the contents of the tank, plus precipitation. The containment devices must meet all Federal and State rules for primary and secondary containment. Secondary containment requirements are waived if the tank is equipped with a level sensor and alarm to signal an overflow or leak and the facility has a contingency plan in place to remove excess liquid to a second containment structure or off-site treatment facility to prevent exposure to stormwater. The containment structures must be visually inspected for signs of deterioration at least once per year. The contingency plan and tank inspection procedure must be documented in the SWPPP.
- v. **Non-stormwater discharges** – The permittee must document that it has evaluated its site for the presence non-stormwater discharges not listed in MCM3 of this GP. Documentation must include the following.
 - 1. The date of the evaluation;
 - 2. A description of the evaluation criteria used;
 - 3. A list of the outfalls or onsite drainage points that were directly observed during the evaluation; and
 - 4. The action(s) taken, such as a list of control measures used to eliminate unauthorized discharge(s), or documentation that a separate MEPDES permit was obtained.

Part IV. Requirements (cont'd)

- vi. **Salt storage.** The permittee must document the location of any storage piles containing salt or other material or products, or liquid brine used for deicing or other municipal purposes.
- vii. **Sampling data.** Existing dischargers must summarize all stormwater discharge sampling data collected at the facility during the previous permit term. The summary must include a narrative description (and may include data tables/figures) that adequately summarizes the collected sampling data to support identification of potential pollution sources at the facility. New dischargers and new sources must provide a summary of any available stormwater runoff data they may have.
- viii. **Method of on-site storage or disposal.** A storage practice or disposal method must be detailed for all raw materials, intermediate materials, final products and waste materials. Waste materials must be handled in accordance with applicable federal and State waste management rules and regulations.

4. Storm Water Pollution Prevention Plan – Control Measures

The permittee must review all control measures at least quarterly and complete corrective actions to modify any control measures that are not achieving the intended effect of minimizing pollutant discharges. The SWPPP must document the type and location of all control measures selected to ensure compliance with technology-based and water quality-based effluent limitations.

- a. **Best management practices (BMPs) considerations.** Best management practices must be applied to all areas described in the summary of potential pollutant sources documented in the SWPPP. The SWPPP must include an implementation schedule for all proposed BMPs. The permittee must consider, at a minimum, the following in selection of BMPs:
 - i. The quantity and nature of the pollutants, and their potential to impact the water quality of receiving waters;
 - ii. Preventing stormwater from coming into contact with polluting materials;
 - iii. Using control measures in combination to minimize pollutants in stormwater discharges;
 - iv. Opportunities to offset stormwater and temperature impacts from impervious areas on dry weather flows and low flow situations to streams;
 - v. Minimizing impervious areas at the facility and infiltrating runoff onsite (including bioretention cells, green roofs, and pervious pavement, among other approaches);
 - vi. Attenuating flow using open vegetated swales and natural depressions; and
 - vii. Use of treatment interceptors (*e.g.*, swirl separators, sand filters, catch basin inserts/filters) to minimize the discharge of pollutants.

Part IV. Requirements (cont'd)

- b. **Non-structural control measures** The permittee must comply with the non-structural control measures in Part IV (6)(d)(2), *Non-Numeric Effluent Limitations*.

The permittee must review all structural BMPs at least quarterly and complete corrective actions to modify any BMPs that are not achieving the intended effect of minimizing pollutant discharges. The SWPPP must document the type and location of all BMPs selected to ensure compliance with technology-based and water quality-based effluent limitations.

5. Stormwater Pollution Prevention Plan Records

The permittee must keep the following inspection, monitoring, and certification records on site with the SWPPP. Records required to be kept with a facility's SWPPP are facility-specific except that any of the records listed below that are already being maintained in order to comply with other portions of this GP (e.g. catch basin cleaning, street sweeping) do not need to be stored on site with the SWPPP.

- a. Documentation of maintenance and repairs of control measures, including the date(s) of regular maintenance, date(s) of discovery of areas in need of repair/replacement, and for repairs, date(s) that the control measure(s) returned to full function, and the justification for any extended maintenance/repair schedules;
- b. All SWPPP inspection reports and visual monitoring reports required by this GP;
- c. A description of any deviations from the schedule for visual monitoring, and the reason for the deviations (e.g., adverse weather or it was impracticable to collect samples within the first 60 minutes of a measurable storm event);
- d. Dates and descriptions of all spills and leaks and corrective actions taken;
- e. Corrective Action Reports and summary of completed actions taken at the site, including event(s) and date(s) when problems were discovered and modifications occurred; and
- f. A copy of records for all employee SWPPP related training as required.

6. Monitoring Requirements

- a. **Procedures for conducting monitoring.** This GP contains routine facility inspections and visual monitoring. Samples and measurements taken for the purpose of monitoring must be representative of the volume and nature of the discharge over the sampling and reporting period.

Part IV. Requirements (cont'd)

The SWPPP must document the procedures and frequencies for conducting quarterly routine facility inspections and visual monitoring where applicable. SWPPP documentation must include the following.

- i. Location of sample collection (discharge point designation);
- ii. Monitoring schedule including monitoring exceptions, adverse weather conditions, and waivers.
- iii. Stormwater samples should, whenever practicable, be collected within the first sixty (60) minutes of the beginning of a discharge during a storm event of greater than $\frac{1}{4}$ of an inch during a 24-hour period. Sampling events are only required during normal business hours. If a sample cannot be collected within the first 60 minutes, the permittee must document with inspection forms the reason(s) or circumstance(s) why it was not practicable to obtain a timely sample. Samples collected more than two (2) hours following the beginning of a discharge are not acceptable and will be rejected by the Department.

In the case of snowmelt, samples must be collected during a period with a measurable discharge from the representative outfall/discharge point.

If a stormwater discharge event does not occur during normal operating business hours an entire calendar quarter, the permittee must document in the SWPPP that there was no discharge to sample. Monitoring requirements under these circumstances are waived.

7. Routine Facility Inspections

- a. **Applicability.** All permittees with public works facilities; transfer stations; school bus and other maintenance garages located in the UA must conduct routine facility inspections of areas of the facility covered by the requirements in this GP, including, but not limited to, the following:
 - i. Areas where materials or activities are exposed to stormwater;
 - ii. Areas identified in the SWPPP and those that are potential pollutant sources;
 - iii. Areas where spills and leaks have occurred in the past three years;
 - iv. Discharge points; and
 - v. Control measures used to comply with the limits contained in this GP.

Part IV. Requirements (cont'd)

- b. **Minimum inspection requirements** - Routine facility inspections must be conducted once per calendar quarter each year the permittee is covered under this GP. These inspections must be equally spaced with a minimum of sixty (60) days between inspections whenever possible. At least once each calendar year, the routine inspection must be conducted during a period when a stormwater discharge is occurring. The permittee must document findings from each routine facility inspection in a signed, certified report maintained with the SWPPP including, but not limited to, the following:
- i. The inspection date and time;
 - ii. The name(s) and signature(s) of the inspector(s);
 - iii. Weather information (precipitation in the previous 48 hour period of time);
 - iv. All observations relating to the implementation of control measures at the operations or facility, including:
 1. A description of any discharges occurring at the time of the inspection;
 2. Any new discharges from and/or pollutants at the site;
 3. Any evidence of, or the potential for, pollutants entering the drainage system;
 4. Observations regarding the physical condition of and around all outfalls/discharge points, including any flow dissipation devices, and evidence of pollutants in discharges and/or the receiving water;
 - v. Any control measures needing maintenance, repairs, or replacement;
 - vi. Any additional control measures needed to comply with the GP requirements; and
 - vii. Any incidents of noncompliance.

Routine facility inspection requirements may be satisfied at the same time visual monitoring is conducted provided they are conducted during a qualifying storm event and all components of both monitoring types are included in the report.

- c. **Visual Monitoring.** All permittees required to have a SWPPP must conduct visual monitoring once per calendar quarter each year the permittee is covered under this GP. The permittee must collect a stormwater sample from each outfall/discharge point or a representative outfall/discharge point during a qualifying storm event of greater than 0.25 inches, or ice or snow melt and conduct a visual assessment of these samples. These samples are not required to be collected in accordance with 40 CFR Part 136 procedures but must be collected in such a manner that the samples are representative of the stormwater discharge. The sample must be collected in a clean, colorless glass or plastic container, and examined in a well-lit area. The visual assessment must be performed and documented in accordance with standard operating procedures outlined in document dated June 12, 2017, DEPLW0768 (or most current version), *Visual Monitoring of Stormwater Discharges Associated with Industrial Activity*. See Attachment E of this GP. The quarterly Visual Monitoring sample forms must be completed and kept on file with the SWPPP. Visual evidence of pollution in a stormwater sample indicates that modifications or additions to control measures are needed at the site.

Part IV. Requirements (cont'd)

The permittee must visually inspect and document or observe the sample for the following water quality characteristics:

1. Color;
2. Odor;
3. Clarity (diminished);
4. Floating solids;
5. Settled solids;
6. Suspended solids;
7. Foam;
8. Oil sheen; and
9. Other obvious indicators of stormwater pollution

If a stormwater discharge event associated with a qualifying storm event does not occur during normal operating business hours for an entire calendar quarter, the permittee must document in the SWPPP that there was no discharge to sample. Monitoring requirements under these circumstances are waived.

8. **Conditions Requiring SWPPP Review and Revision.** When any of the following conditions occur or are detected during an inspection, monitoring or other means, or the Department informs the permittee that any of the following conditions have occurred, the permittee must review and revise, as appropriate, the SWPPP (*e.g.*, sources of pollution; spill and leak procedures; non-stormwater discharges; the selection, design, installation and implementation of your control measures) so that pollutant discharges are minimized:
- a. An unauthorized release or discharge (*e.g.*, spill, leak, or discharge of non-stormwater not authorized by this or another MEPDES permit to a water of the State) occurs at the operation or facility;
 - b. A discharge violates a condition of this GP or permittee-specific DEP Order;
 - c. A discharge violates a non-numeric effluent limitation contained in this GP, or an applicable water quality-based limitation or ambient water quality criteria associated with impaired waters monitoring;
 - d. The control measures are not stringent enough for the discharge to meet applicable water quality standards;
 - e. A required control measure was never installed, was installed incorrectly, or is not being properly operated or maintained; or
 - f. Whenever a visual assessment shows evidence of stormwater pollution (*e.g.*, color, odor, floating solids, settled solids, suspended solids, foam).

Part IV. Requirements (cont'd)**9. Corrective Actions and Deadlines.**

- a. **Immediate actions.** If corrective action is needed, the permittee must immediately take all reasonable steps necessary to minimize or prevent the discharge of pollutants until a permanent solution is installed and made operational, including cleaning up any contaminated surfaces so that the material will not discharge in subsequent storm events.

Note: In this context, the term “immediately” requires the permittee to, on the same day a condition requiring corrective action is found, take all reasonable steps to minimize or prevent the discharge of pollutants until a permanent solution is installed and made operational. However, if a problem is identified at a time in the work day when it is too late to initiate corrective action, the initiation of corrective action must begin no later than the following work day. “All reasonable steps” means that the permittee has undertaken initial actions to assess and address the condition causing the corrective action, including, for example, cleaning up any exposed materials that may be discharged in a storm event (e.g., through sweeping, vacuuming) or making arrangements (i.e., scheduling) for a new BMP to be installed at a later date. “All reasonable steps” for purposes of complying with Conditions Requiring SWPPP Review to Determine if Modifications Are Necessary, when the permittee concludes a corrective action is, in fact, not necessary, could include documenting why a corrective action is unnecessary.

- b. **Subsequent actions.** If the permittee determines that additional actions are necessary beyond those implemented in accordance with immediate action response, the permittee must complete the corrective actions (e.g., install a new or modified control and make it operational, complete the repair) before the next storm event if possible, and within 14 calendar days from the time of discovery of the corrective action condition. If it is infeasible to complete the corrective action within 14 calendar days, the permittee must document why it is infeasible to complete the corrective action within the 14-day timeframe. The permittee must also identify the schedule for completing the work, which must be done as soon as practicable after the 14-day timeframe but no longer than 45 days after discovery. If the completion of corrective action will exceed the 45-day timeframe, the permittee may take the minimum additional time necessary to complete the corrective action, provided that the permittee notifies the Department of the intention to exceed 45 days, the permittee’s rationale for an extension, and a completion date, which the permittee must also include in its corrective action documentation. Where the permittee’s corrective actions result in changes to any of the controls or procedures documented in your SWPPP, the permittee must modify the SWPPP accordingly within 14 calendar days of completing corrective action work.

Part IV. Requirements (cont'd)

- c. **Corrective Action Report (CAR).** A Corrective Action Report is a signed, certified report to document actions taken in response to triggering the need for corrective action. The existence of any of the conditions listed in Part IV(8)(a-f) of this GP triggers the need for corrective action review.

A complete CAR must contain the following information:

1. The existence of any of the conditions listed in Part IV(8)(a-f) of this GP and description of the condition triggering the need for corrective action review;
 2. For any spills or leaks: a description of the incident including material, date/time, amount, location, and cause for spill, and any leaks, spills or other releases that resulted in discharges of pollutants to the MS4 or waters of State, through stormwater or otherwise;
 3. Date the condition was identified in a facility or Department inspection;
 4. Description of immediate actions completed, including measures taken to prevent the reoccurrence of such releases;
 5. A description of the corrective actions taken or to be taken as a result of the identified conditions;
 6. The dates when each corrective action was initiated and completed (or is expected to be completed); and
- d. **Effect of corrective action.** If the event triggering the review is a violation of this GP correcting it does not remove the original violation. Additionally, failing to take corrective action in accordance with this section is an additional violation of this GP.

D. Sharing responsibility

1. **Reliance on other entity.** The permittee may satisfy the requirement to implement a BMP for a MCM by having a third party implement the BMP. For example, if a local watershed organization organized or funded by the permittee performs an annual “river clean-up”, this event may be used to satisfy a BMP for the Public Participation.

If the permittee is relying on a third party to implement one or more BMP(s), the permittee must note that fact in the SWMP and Annual Compliance Report required in Part IV (F). If the third party fails to implement the BMP(s), the permittee remains responsible for its implementation.

2. **Qualifying state or federal program.** If a BMP or MCM is the responsibility of a third party under another NPDES or MEPDES permit, the permittee is not required to include such BMP or MCM in its SWMP. The permittee must reference this qualifying program in their SWMP. However, the permittee is responsible for its implementation if the third party fails to perform. The permittee must annually confirm that the third party is still implementing this measure. If the third party fails to implement the measure, the SWMP must be modified to address the measure.

Part IV. Requirements (cont'd)

In the case of a permitted municipal industrial activity, such as a publicly owned treatment works covered by the Multi Sector General Permit For The Discharge of Stormwater Associated With An Industrial Activity (MSGP), the permittee may reference the industrial activity's SWPPP to address a portion of the permittee's SWMP.

3. **Other MS4 Permittees.** The permittee must identify interconnections within the regulated small MS4s and find ways to cooperate with other regulated or non-regulated entities. Where a portion of the separate storm sewer system within a municipality is owned, operated or otherwise the responsibility of another regulated small MS4, the two entities may coordinate the development and implementation of their respective SWMP to address all elements of Part IV B (1-6). At the very least, a clear description of their respective responsibilities for these elements must be included in each regulated small MS4's SWMP.

For example, a storm sewer system within a municipality may be operated and maintained by the Maine DOT, or other public or quasi-public entity. In cases such as these, the two entities must cooperate and coordinate their SWMP to reduce duplicative efforts to address the MCMs, particularly at the interconnections within storm sewer systems. Where an illicit discharge is detected from an outfall near an interface between two storm sewer systems and where there is more than one responsible entity, the two entities must coordinate their efforts to detect and ultimately eliminate the cause of the illicit discharge. These efforts must be noted in both the regulated small MS4's Annual Compliance Reports.

E. Discharges To 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 address compliance with the TMDL waste load allocation ("WLA") and any implementation plan. This GP does not authorize a direct discharge that is inconsistent with the WLA of an approved TMDL. EPA approved TMDLs prior to the issuance date of this permit, can be found at <https://www.epa.gov/tmdl/region-1-approved-tmdls-state#tmdl-me>. This GP does not authorize a new or increased discharge of storm water to an impaired waterbody that contributes to the impairment at a detectable level.
2. If a TMDL is approved or modified by EPA subsequent to the issuance date of this GP, the Department will notify the permittee and may:
 - a. Require the permittee to review its permittee specific DEP Order and SWMP for consistency with the TMDL, and propose any necessary changes to the permittee specific DEP Order and SWMP to be submitted to the Department within six months of the receipt of notification concerning the TMDL;
 - b. Issue a watershed-specific general permit for the area draining to the impaired waterbody or
 - c. Require the permittee to apply to the Department for an individual permit.

Part IV. Requirements (cont'd)

This GP will not be reopened for modification to address a TMDL that is approved or modified by EPA subsequent to the issuance date of this GP. The Department may however, after proper notice to the permittee, modify the terms and conditions of the permittee specific DEP Order to be consistent with the newly approved or modified TMDL. Modification of the permittee specific DEP Order will be subject to public process as described in Part III A(1).

3. If the waterbody to which a point source covered by this GP discharges is an Urban Impaired Stream (UIS) (Appendix B of this permit) the permittee must propose and fully implement at least three structural or non-structural BMPs to be considered for inclusion in the permittee specific DEP Order, unless the Department has determined the MS4 discharge is not causing or contributing to the impairment. The BMPs must address a specific impairment from the MS4 discharge within the UA, be clear, specific and measurable. Structural or nonstructural BMPs may selected from a) MCMs 1-6, b) an existing Department approved Watershed Management Plan, or c) BMPs in Appendix D, *BMPs for Discharges to Urban Impaired Streams*, of this GP or more specifically developed by the permittee. For receiving waters impaired in whole or in part by nutrient loading, including UISs covered by the Impervious Cover TMDL, permittees may propose measures designed to reduce loads into the MS4 system. The permittee specific DEP Order will set forth those measures the permittee must take, and may include, in whole or in part, the measures proposed by the permittee.

F. Record Keeping

The permittee must keep all records required by this GP for at least three (3) years following its expiration or longer if requested by the Department or the USEPA. The permittee must make records, including its SWMP, available to the public during regular business hours.

G. Annual Compliance Report

By September 15 of each year, the permittee must electronically submit an Annual Compliance Report to the Department for review. Standardized Annual Compliance Report forms are to be provided by the Department or the permittee may submit an alternative form to the Department for review and approval.

MS4 Program Manager
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017
e-mail: rhonda.poirier@maine.gov.

Part IV. Requirements (cont'd)

The Annual Compliance Report must include the following.

- a. The status of compliance with the terms and conditions of this GP and permittee specific DEP Order based on the implementation of the permittee's SWMP 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 MEP.
- 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 permittee intends to undertake pursuant to its SWMP to comply with the terms and conditions of this GP and 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 this GP and its SWMP 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.

Changes to the report based on the Department's review comment(s) must be submitted to the Department within 60 calendar days of the receipt of the comment(s).

Final Permit

General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems

Part IV. Requirements (cont'd)

H. Reopener. This GP may be modified or reopened by the Department, after providing notice to the permittee's, as provided in Water Pollution Control, 38 M.R.S. § 414-A(5) as follows:

1. When necessary to correct legal, technical or procedural mistakes or errors;
2. When there has been or will be a substantial change in the activity or means of treatment that occurred after the time the permit was issued;
3. When new information other than revised rules, guidance or test methods becomes available that would have justified different conditions at the time the permit was issued;
4. When a pollutant not included in the permit may be present in the discharge in quantities sufficient to require treatment, such as when the pollutant exceeds the level that can be achieved by the technology-based treatment standards appropriate to the permittee or contribute to water quality violations;
5. When necessary to make changes as a result of the failure of one state to notify another state whose waters may be affected by a discharge; or

ATTACHMENT A

Appendix A

Regulated Small MS4 Municipal Operators

Auburn
Bangor
Berwick
Biddeford
Brewer
Cape Elizabeth
Cumberland
Eliot
Falmouth
Freeport
Gorham
Hampden
Kittery
Lewiston
Lisbon
Milford
Old Orchard Beach
Old Town
Orono
Portland
Sabattus
Saco
Scarborough
South Berwick
South Portland
Veazie
Westbrook
Windham
Yarmouth
York

ATTACHMENT B

APPENDIX B

Urban impaired streams

STREAM	TOWN*
LOGAN BROOK	AUBURN**
UNNAMED TRIBUTARY TO BOND BROOK (entering below I-95, drains Turnpike Mall Shopping Center)	AUGUSTA
KENNEDY BROOK	AUGUSTA
WHITNEY BROOK	AUGUSTA
PENJAJAWOC STREAM, including MEADOW BROOK	BANGOR**
BIRCH STREAM (OHIO STREET)	BANGOR**
CAPEHART BROOK	BANGOR**
ARCTIC BROOK (VALLEY AVENUE)	BANGOR**
SHAW BROOK	BANGOR**, HAMPDEN**
SUCKER BROOK	BANGOR**, HAMPDEN**
THATCHER BROOK	BIDDEFORD**
MARE BROOK	BRUNSWICK
UNNAMED TRIBUTARY TO ANDROSCOGGIN RIVER (near Jordan Avenue)	BRUNSWICK
UNNAMED TRIBUTARY TO ANDROSCOGGIN RIVER (near River Road)	BRUNSWICK
UNNAMED TRIBUTARY TO ANDROSCOGGIN RIVER (near Water Street)	BRUNSWICK
CARIBOU STREAM	CARIBOU
FROST GULLY BROOK	FREEPORT**
CONCORD GULLY	FREEPORT**
HART BROOK	LEWISTON**
JEPSON BROOK	LEWISTON**
UNNAMED STREAM (Route 196)	LISBON FALLS**
CAPISIC BROOK	PORTLAND**
DOLE BROOK	PORTLAND**
FALL BROOK	PORTLAND**
NASONS BROOK	PORTLAND**
GOOSEFARE BROOK	SACO**
GOODALL BROOK	SANFORD
TROUT BROOK (including KIMBALL BROOK)	SOUTH PORTLAND**
BARBERRY CREEK	SOUTH PORTLAND**
LONG CREEK	SOUTH PORTLAND**
PHILLIPS BROOK	SCARBOROUGH **
RED BROOK	SCARBOROUGH **, SOUTH PORTLAND**

WHITTEN BROOK	SKOWHEGAN
UNNAMED TRIBUTARY TO ANDROSCOGGIN RIVER (near Topsham Fairgrounds)	TOPSHAM
UNNAMED TRIBUTARY TO ANDROSCOGGIN RIVER (draining Topsham Fair Mall area)	TOPSHAM

*Town listed provides the general location of the stream. The stream may pass through other municipalities, which are also included even if not listed in this table.

** Town is regulated by this GP

ATTACHMENT C

Erosion and sedimentation control

A person who conducts, or causes to be conducted, an activity that involves filling, displacing or exposing soil or other earthen materials shall take measures to prevent unreasonable erosion of soil or sediment beyond the project site or into a protected natural resource as defined in 38 M.R.S. §480-B. Erosion control measures must be in place before the activity begins. Measures must remain in place and functional until the site is permanently stabilized. Adequate and timely temporary and permanent stabilization measures must be taken.

NOTE: Other requirements may apply, including, but not limited to the *Natural Resources Protection Act* 38 M.R.S. §480-B.

NOTE: The Department has prepared protocols for the control of erosion and sedimentation. See "Maine Erosion and Sediment Control BMPs Maine Department of Environmental Protection."

- 1. Pollution prevention.** Minimize disturbed areas and protect natural downgradient buffer areas to the extent practicable. Control stormwater volume and velocity within the site to minimize soil erosion. Minimize the disturbance of steep slopes. Control stormwater discharges, including both peak flow rates and volume, to minimize erosion at outlets. The discharge may not result in erosion of any open drainage channels, swales, stream channels or stream banks, upland, or coastal or freshwater wetlands off the project site.

Whenever practicable, no disturbance activities should take place within 50 feet of any protected natural resource. If disturbance activities take place between 30 feet and 50 feet of any protected natural resource, and stormwater discharges through the disturbed areas toward the protected natural resource, perimeter erosion controls must be doubled. If disturbance activities take place less than 30 feet from any protected natural resource, and stormwater discharges through the disturbed areas toward the protected natural resource, perimeter erosion controls must be doubled and disturbed areas must be temporarily or permanently stabilized within 7 days.

NOTE: Buffers improve water quality by helping to filter pollutants in run-off both during and after construction. Minimizing disturbed areas through phasing limits the amount of exposed soil on the site through retention of natural cover and by retiring areas as permanently stabilized. Less exposed soil results in fewer erosion controls to install and maintain. If work within an area is not anticipated to begin within two weeks' time, consider leaving the area in its naturally existing cover.

NOTE: Many construction activities within 75 feet of a protected natural resource require a permit under the *Natural Resources Protection Act* prior to initiation. For more information regarding the applicability of the NRPA to your project, you can visit the Department's website at <http://www.maine.gov/dep/land/nrpa/index.html> or contact staff of the Division of Land Resource Regulation at the nearest regional office.

- 2. Sediment barriers.** Prior to construction, properly install sediment barriers at the downgradient edge of any area to be disturbed and adjacent to any drainage channels within the disturbed area. Sediment barriers should be installed downgradient of soil or sediment stockpiles and stormwater prevented from running onto the stockpile. Maintain the sediment barriers by removing accumulated sediment, or removing and replacing the barrier, until the disturbed area is permanently stabilized. Where a

discharge to a storm drain inlet occurs, if the storm drain carries water directly to a surface water and you have authority to access the storm drain inlet, you must install and maintain protection measures that remove sediment from the discharge.

3. **Stabilized construction entrance.** Prior to construction, properly install a stabilized construction entrance (SCE) at all points of egress from the site. The SCE is a stabilized pad of aggregate, underlain by a geotextile filter fabric, used to prevent traffic from tracking material away from the site onto public ROWs. Maintain the SCE until all disturbed areas are stabilized.
4. **Temporary stabilization.** Within 7 days of the cessation of construction activities in an area that will not be worked for more than 7 days, stabilize any exposed soil with mulch, or other non-erodible cover. Stabilize areas within 75 feet of a wetland or waterbody within 48 hours of the initial disturbance of the soil or prior to any storm event, whichever comes first.
5. **Removal of temporary measures.** Remove any temporary control measures, such as silt fence, within 30 days after permanent stabilization is attained. Remove any accumulated sediments and stabilize.

NOTE: It is recommended that silt fences be removed by cutting the fence materials at ground level to avoid additional soil disturbance.

6. **Permanent stabilization.** If the area will not be worked for more than one year or has been brought to final grade, then permanently stabilize the area within 7 days by planting vegetation, seeding, sod, or through the use of permanent mulch, or riprap, or road sub-base. If using vegetation for stabilization, select the proper vegetation for the light, moisture, and soil conditions; amend areas of disturbed subsoils with topsoil, compost, or fertilizers; protect seeded areas with mulch or, if necessary, erosion control blankets; and schedule sodding, planting, and seeding so to avoid die-off from summer drought and fall frosts. Newly seeded or sodded areas must be protected from vehicle traffic, excessive pedestrian traffic, and concentrated runoff until the vegetation is well-established with 90% cover by healthy vegetation. If necessary, areas must be reworked and restabilized if germination is sparse, plant coverage is spotty, or topsoil erosion is evident. One or more of the following may apply to a particular site.
 - (a) **Seeded areas.** For seeded areas, permanent stabilization means a 90% cover of the disturbed area with mature, healthy plants with no evidence of washing or rilling of the topsoil.
 - (b) **Sodded areas.** For sodded areas, permanent stabilization means the complete binding of the sod roots into the underlying soil with no slumping of the sod or die-off.
 - (c) **Permanent Mulch.** For mulched areas, permanent mulching means total coverage of the exposed area with an approved mulch material. Erosion Control Mix may be used as mulch for permanent stabilization according to the approved application rates and limitations.
 - (d) **Riprap.** For areas stabilized with riprap, permanent stabilization means that slopes stabilized with riprap have an appropriate backing of a well-graded gravel or approved geotextile to prevent soil movement from behind the riprap. Stone must be sized appropriately. It is recommended that angular stone be used.
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- (e) **Agricultural use.** For construction projects on land used for agricultural purposes (e.g., pipelines across crop land), permanent stabilization may be accomplished by returning the disturbed land to agricultural use.
 - (f) **Paved areas.** For paved areas, permanent stabilization means the placement of the compacted gravel subbase is completed, provided it is free of fine materials that may runoff with a rain event
 - (g) **Ditches, channels, and swales.** For open channels, permanent stabilization means the channel is stabilized with a 90% cover of healthy vegetation, with a well-graded riprap lining, turf reinforcement mat, or with another non-erosive lining such as concrete or asphalt pavement. There must be no evidence of slumping of the channel lining, undercutting of the channel banks, or down-cutting of the channel.
7. **Winter Construction.** "Winter construction" is construction activity performed during the period from November 1 through April 15. If disturbed areas are not stabilized with permanent measures by November 1 or new soil disturbance occurs after November 1, but before April 15, then these areas must be protected and runoff from them must be controlled by additional measures and restrictions.
- (a) **Site Stabilization.** For winter stabilization, hay mulch is applied at twice the standard temporary stabilization rate. At the end of each construction day, areas that have been brought to final grade must be stabilized. Mulch may not be spread on top of snow.
 - (b) **Sediment Barriers.** All areas within 75 feet of a protected natural resource must be protected with a double row of sediment barriers.
 - (c) **Ditch.** All vegetated ditch lines that have not been stabilized by November 1, or will be worked during the winter construction period, must be stabilized with an appropriate stone lining backed by an appropriate gravel bed or geotextile unless specifically released from this standard by the Department.
 - (d) **Slopes.** Mulch netting must be used to anchor mulch on all slopes greater than 8% unless erosion control blankets or erosion control mix is being used on these slopes.

NOTE: The Department has prepared protocols for the control of erosion and sedimentation during the winter months. See "Maine Erosion and Sediment Control BMPs Maine Department of Environmental Protection."

8. **Stormwater channels.** Ditches, swales, and other open stormwater channels must be designed, constructed, and stabilized using measures that achieve long-term erosion control. Ditches, swales and other open stormwater channels must be sized to handle, at a minimum, the expected volume runoff. Each channel should be constructed in sections so that the section's grading, shaping, and installation of the permanent lining can be completed the same day. If a channel's final grading or lining installation must be delayed, then diversion berms must be used to divert stormwater away from the channel, properly-spaced check dams must be installed in the channel to slow the water velocity, and a temporary lining installed along the channel to prevent scouring. Permanent stabilization for channels is addressed under Appendix A(5)(g) above.
- (a) The channel should receive adequate routine maintenance to maintain capacity and prevent or correct any erosion of the channel's bottom or side slopes.
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(b) When the watershed draining to a ditch or swale is less than 1 acre of total drainage and less than $\frac{1}{4}$ acre of impervious area, diversion of runoff to adjacent wooded or otherwise vegetated buffer areas is encouraged where the opportunity exists.

9. **Sediment basins.** Sediment basins must be designed to provide storage for either the calculated runoff from a 2-year, 24-hour storm or provide for 3,600 cubic feet of capacity per acre draining to the basin. Outlet structures must discharge water from the surface of the basin whenever possible. Erosion controls and velocity dissipation devices must be used if the discharging waters are likely to create erosion. Accumulated sediment must be removed as needed from the basin to maintain at least $\frac{1}{2}$ of the design capacity of the basin.

The use of cationic treatment chemicals, such as polymers, flocculants, or other chemicals that contain an overall positive charge designed to reduce turbidity in stormwater must receive prior approval from the Department. When requesting approval to use cationic treatment chemicals, you must describe appropriate controls and implementation procedures to ensure the use will not lead to a violation of water quality standards. In addition, you must specify the type(s) of soil likely to be treated on the site, chemicals to be used and how they are to be applied and in what quantity, any manufacturer's recommendations, and any training had by personnel who will handle and apply the chemicals.

10. **Roads.** Gravel and paved roads must be designed and constructed with crowns or other measures, such as water bars, to ensure that stormwater is delivered immediately to adjacent stable ditches, vegetated buffer areas, catch basin inlets, or street gutters.

NOTE: (1) Gravel and paved roads should be maintained so that they continue to conform to this standard in order to prevent erosion problems. (2) The Department recommends that impervious surfaces, including roads, be designed and constructed so that stormwater is distributed in sheet flow to natural vegetated buffer areas wherever such areas are available. Road ditches should be designed so that stormwater is frequently (at least every 100 to 200 feet) discharged via ditch turnouts in sheet flow to adjacent natural buffer areas wherever possible.

11. **Culverts.** Culverts must be sized to avoid unintended flooding of upstream areas or frequent overtopping of roadways. Culvert inlets must be protected with appropriate materials for the expected entrance velocity, and protection must extend at least as high as the expected maximum elevation of storage behind the culvert. Culvert outlet design must incorporate measures, such as aprons, to prevent scour of the stream channel. Outlet protection measures must be designed to stay within the channel limits. The design must take account of tailwater depth.
12. **Parking areas.** Parking areas must be constructed to ensure runoff is delivered to adjacent swales, catch basins, curb gutters, or buffer areas without eroding areas downslope. The parking area's subbase compaction and grading must be done to ensure runoff is evenly distributed to adjacent buffers or side slopes. Catch basins must be located and set to provide enough storage depth at the inlet to allow inflow of peak runoff rates without by-pass of runoff to other areas.
13. **Additional requirements.** Additional requirements may be applied on a site-specific basis.
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Inspection and maintenance**1. During construction.** The following standards must be met during construction.

- (a) **Inspection and corrective action.** Inspect disturbed and impervious areas, erosion control measures, materials storage areas that are exposed to precipitation, and locations where vehicles enter or exit the site. Inspect these areas at least once a week as well as before and within 24 hours after a storm event (rainfall), and prior to completing permanent stabilization measures. A person with knowledge of erosion and stormwater control, including the standards and conditions in the permit, shall conduct the inspections.
- (b) **Maintenance.** If best management practices (BMPs) need to be repaired, the repair work should be initiated upon discovery of the problem but no later than the end of the next workday. If additional BMPs or significant repair of BMPs are necessary, implementation must be completed within 7 calendar days and prior to any storm event (rainfall). All measures must be maintained in effective operating condition until areas are permanently stabilized.
- (c) **Documentation.** Keep a log (report) summarizing the inspections and any corrective action taken. The log must include the name(s) and qualifications of the person making the inspections, the date(s) of the inspections, and major observations about the operation and maintenance of erosion and sedimentation controls, materials storage areas, and vehicles access points to the parcel. Major observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a particular location, and location(s) where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken.

The log must be made accessible to Department staff and a copy must be provided upon request. The permittee shall retain a copy of the log for a period of at least three years from the completion of permanent stabilization.

2. Post-construction. The following standards must be met after construction.

- (a) **Plan.** Carry out an approved inspection and maintenance plan that is consistent with the minimum requirements of this section. The plan must address inspection and maintenance of the project's permanent erosion control measures and stormwater management system. This plan may be combined with the plan listed in Section 2(a) of this appendix. See Section 7(C)(2) for submission requirements.
 - (b) **Inspection and maintenance.** All measures must be maintained in effective operating condition. A person with knowledge of erosion and stormwater control, including the standards and conditions in the permit, shall conduct the inspections. The following areas, facilities, and measures must be inspected and identified deficiencies must be corrected. Areas, facilities, and measures other than those listed below may also require inspection on a specific site. Inspection or maintenance tasks other than those discussed below must be included in the maintenance plan developed for a specific site.
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NOTE: Expanded and more-detailed descriptions for specific maintenance tasks may be found in the Maine DEP's "Stormwater Management for Maine: Best Management Practices."

- (i) Inspect vegetated areas, particularly slopes and embankments, early in the growing season or after heavy rains to identify active or potential erosion problems. Replant bare areas or areas with sparse growth. Where rill erosion is evident, armor the area with an appropriate lining or divert the erosive flows to on-site areas able to withstand the concentrated flows. See permanent stabilization standards in Appendix A(5).
 - (ii) Inspect ditches, swales and other open stormwater channels in the spring, in late fall, and after heavy rains to remove any obstructions to flow, remove accumulated sediments and debris, to control vegetated growth that could obstruct flow, and to repair any erosion of the ditch lining. Vegetated ditches must be mowed at least annually or otherwise maintained to control the growth of woody vegetation and maintain flow capacity. Any woody vegetation growing through riprap linings must also be removed. Repair any slumping side slopes as soon as practicable. If the ditch has a riprap lining, replace riprap on areas where any underlying filter fabric or underdrain gravel is showing through the stone or where stones have dislodged. The channel must receive adequate routine maintenance to maintain capacity and prevent or correct any erosion of the channel's bottom or sideslopes.
 - (iii) Inspect culverts in the spring, in late fall, and after heavy rains to remove any obstructions to flow; remove accumulated sediments and debris at the inlet, at the outlet, and within the conduit; and to repair any erosion damage at the culvert's inlet and outlet.
 - (iv) Inspect and clean out catch basins. Clean-out must include the removal and legal disposal of any accumulated sediments and debris at the bottom of the basin, at any inlet grates, at any inflow channels to the basin, and at any pipes between basins. If the basin outlet is designed to trap floatable materials, then remove the floating debris and any floating oils (using oil-absorptive pads).
 - (v) Inspect resource and treatment buffers once a year for evidence of erosion, concentrating flow, and encroachment by development. If flows are concentrating within a buffer, site grading, level spreaders, or ditch turn-outs must be used to ensure a more even distribution of flow into a buffer. Check down slope of all spreaders and turn-outs for erosion. If erosion is present, adjust or modify the spreader's or turnout's lip to ensure a better distribution of flow into a buffer. Clean-out any accumulation of sediment within the spreader bays or turn-out pools.
 - (vi) Inspect at least once per year, each stormwater management pond or basin, including the pond's embankments, outlet structure, and emergency spillway. Remove and dispose of accumulated sediments in the pond. Control woody vegetation on the pond's embankments.
 - (vii) Inspect at least one per year, each underdrained filter, including the filter embankments, vegetation, underdrain piping, and overflow spillway. Remove and dispose of accumulated sediments in the filter. If needed, rehabilitate any clogged surface linings, and flush underdrain piping.
 - (viii) Inspect each manufactured system installed on the site, including the system's inlet, treatment chamber(s), and outlet at least once per year, or in accordance with the maintenance
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guidelines recommended by the manufacturer based on the estimated runoff and pollutant load expected to the system from the project. Remove and dispose of accumulated sediments, debris, and contaminated waters from the system and, if applicable, remove and replace any clogged or spent filter media.

(c) Regular maintenance

- (i) Clear accumulations of winter sand in parking lots and along roadways at least once a year, preferably in the spring. Accumulations on pavement may be removed by pavement sweeping. Accumulations of sand along road shoulders may be removed by grading excess sand to the pavement edge and removing it manually or by a front-end loader. Grading of gravel roads, or grading of the gravel shoulders of gravel or paved roads, must be routinely performed to ensure that stormwater drains immediately off the road surface to adjacent buffer areas or stable ditches, and is not impeded by accumulations of graded material on the road shoulder or by excavation of false ditches in the shoulder. If water bars or open-top culverts are used to divert runoff from road surfaces, clean-out any sediments within or at the outlet of these structures to restore their function.
- (ii) Manage each buffer's vegetation consistently with the requirements in any deed restrictions for the buffer. Wooded buffers must remain fully wooded and have no disturbance to the duff layer. Vegetation in non-wooded buffers may not be cut more than three times per year, and may not be cut shorter than six inches.

NOTE: Contact the Department's Division of Watershed Management (Maine DEP) for assistance developing inspection and maintenance requirements for other drainage control and runoff treatment measures installed on the site. The maintenance needs for most measures may be found in the Maine DEP's "Stormwater Management for Maine: Best Management Practices."

- (d) **Documentation.** Keep a log (report) summarizing inspections, maintenance, and any corrective actions taken. The log must include the date on which each inspection or maintenance task was performed, a description of the inspection findings or maintenance completed, and the name of the inspector or maintenance personnel performing the task. If a maintenance task requires the clean-out of any sediments or debris, indicate where the sediment and debris was disposed after removal. The log must be made accessible to Department staff and a copy provided to the Department upon request. The permittee shall retain a copy of the log for a period of at least five years from the completion of permanent stabilization.
3. **Re-certification.** Submit a certification of the following to the Department within three months of the expiration of each five-year interval from the date of issuance of the permit.
- (a) **Identification and repair of erosion problems.** All areas of the project site have been inspected for areas of erosion, and appropriate steps have been taken to permanently stabilize these areas.
 - (b) **Inspection and repair of stormwater control system.** All aspects of the stormwater control system have been inspected for damage, wear, and malfunction, and appropriate steps have been taken to repair or replace the system, or portions of the system.
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- (c) **Maintenance.** The erosion and stormwater maintenance plan for the site is being implemented as written, or modifications to the plan have been submitted to and approved by the Department, and the maintenance log is being maintained.

Municipalities with separate storm sewer systems regulated under the Maine Pollutant Discharge Elimination System (MPDES) Program may report on all regulated systems under their control as part of their required annual reporting in lieu of separate certification of each system. Municipalities not regulated by the MPDES Program, but that are responsible for maintenance of permitted stormwater systems, may report on multiple stormwater systems in one report.

4. **Duration of maintenance.** Perform maintenance as described and required in the permit unless and until the system is formally accepted by the municipality or quasi-municipal district, or is placed under the jurisdiction of a legally created association that will be responsible for the maintenance of the system. If a municipality or quasi-municipal district chooses to accept a stormwater management system, or a component of a stormwater system, it must provide a letter to the Department stating that it assumes responsibility for the system. The letter must specify the components of the system for which the municipality or district will assume responsibility, and that the municipality or district agrees to maintain those components of the system in compliance with Department standards. Upon such assumption of responsibility, and approval by the Department, the municipality, quasi-municipal district, or association becomes a co-permittee for this purpose only and must comply with all terms and conditions of the permit.
5. **Additional requirements.** Additional requirements may be applied on a site-specific basis.
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Housekeeping

These performance standards apply to all projects except for stormwater PBR projects.

1. **Spill prevention.** Controls must be used to prevent pollutants from construction and waste materials stored on site to enter stormwater, which includes storage practices to minimize exposure of the materials to stormwater. The site contractor or operator must develop, and implement as necessary, appropriate spill prevention, containment, and response planning measures.

NOTE: Any spill or release of toxic or hazardous substances must be reported to the Department. For oil spills, call 1-800-482-0777 which is available 24 hours a day. For spills of toxic or hazardous material, call 1-800-452-4664 which is available 24 hours a day. For more information, visit the Department's website at :
<http://www.maine.gov/dep/spills/emergspillresp/>

2. **Groundwater protection.** During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials. Any project proposing infiltration of stormwater must provide adequate pre-treatment of stormwater prior to discharge of stormwater to the infiltration area, or provide for treatment within the infiltration area, in order to prevent the accumulation of fines, reduction in infiltration rate, and consequent flooding and destabilization.

See Appendix D for license by rule standards for infiltration of stormwater.

NOTE: Lack of appropriate pollutant removal best management practices (BMPs) may result in violations of the groundwater quality standard established by 38 M.R.S.A. §465-C(1).

3. **Fugitive sediment and dust.** Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control, but other water additives may be considered as needed. A stabilized construction entrance (SCE) should be included to minimize tracking of mud and sediment. If off-site tracking occurs, public roads should be swept immediately and no less than once a week and prior to significant storm events. Operations during dry months, that experience fugitive dust problems, should wet down unpaved access roads once a week or more frequently as needed with a water additive to suppress fugitive sediment and dust.

NOTE: Dewatering a stream without a permit from the Department may violate state water quality standards and the *Natural Resources Protection Act*.

4. **Debris and other materials.** Minimize the exposure of construction debris, building and landscaping materials, trash, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials to precipitation and stormwater runoff. These materials must be prevented from becoming a pollutant source.

NOTE: To prevent these materials from becoming a source of pollutants, construction and post-construction activities related to a project may be required to comply with applicable

provision of rules related to solid, universal, and hazardous waste, including, but not limited to, the Maine solid waste and hazardous waste management rules; Maine hazardous waste management rules; Maine oil conveyance and storage rules; and Maine pesticide requirements.

5. **Excavation de-watering.** Excavation de-watering is the removal of water from trenches, foundations, coffer dams, ponds, and other areas within the construction area that retain water after excavation. In most cases the collected water is heavily silted and hinders correct and safe construction practices. The collected water removed from the ponded area, either through gravity or pumping, must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved by the Department.

NOTE: Dewatering controls are discussed in the "Maine Erosion and Sediment Control BMPs, Maine Department of Environmental Protection."

6. **Authorized Non-stormwater discharges.** Identify and prevent contamination by non-stormwater discharges. Where allowed non-stormwater discharges exist, they must be identified and steps should be taken to ensure the implementation of appropriate pollution prevention measures for the non-stormwater component(s) of the discharge. Authorized non-stormwater discharges are:

- (a) Discharges from firefighting activity;
 - (b) Fire hydrant flushings;
 - (c) Vehicle washwater if detergents are not used and washing is limited to the exterior of vehicles (engine, undercarriage and transmission washing is prohibited);
 - (d) Dust control runoff in accordance with permit conditions and Appendix (C)(3);
 - (e) Routine external building washdown, not including surface paint removal, that does not involve detergents;
 - (f) Pavement washwater (where spills/leaks of toxic or hazardous materials have not occurred, unless all spilled material had been removed) if detergents are not used;
 - (g) Uncontaminated air conditioning or compressor condensate;
 - (h) Uncontaminated groundwater or spring water;
 - (i) Foundation or footer drain-water where flows are not contaminated;
 - (j) Uncontaminated excavation dewatering (see requirements in Appendix C(5));
 - (k) Potable water sources including waterline flushings; and
 - (l) Landscape irrigation.
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7. **Unauthorized non-stormwater discharges.** The Department's approval under this Chapter does not authorize a discharge that is mixed with a source of non-stormwater, other than those discharges in compliance with Appendix C (6). Specifically, the Department's approval does not authorize discharges of the following:
- (a) Wastewater from the washout or cleanout of concrete, stucco, paint, form release oils, curing compounds or other construction materials;
 - (b) Fuels, oils or other pollutants used in vehicle and equipment operation and maintenance;
 - (c) Soaps, solvents, or detergents used in vehicle and equipment washing; and
 - (d) Toxic or hazardous substances from a spill or other release.
- (8) **Additional requirements.** Additional requirements may be applied on a site-specific basis.
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ATTACHMENT D

BMPs for Discharges to Urban Impaired Streams

Stormwater effects can be lessened, water quality improved, and impairments curtailed by implementing best management practices (BMPs) and remedial actions in a cost-effective manner using the following adaptive management approach:

- Implement BMPs strategically through a phased program which focuses on getting the most reductions, for least cost, in sensitive areas first (for example, begin with habitat restoration, flood plain recovery, and treatment of smaller, more frequent storms);
- Monitor ambient water quality to assess stream improvement;
- Compare monitoring results to water quality standards (aquatic life criteria);
- Continue BMP implementation in a phased manner until water quality standards are attained.

General Stream Restoration Techniques

Following is a list of general BMPs and stream restoration techniques and how they can alleviate stressors and improve stream health. Short-term implementation of these measures will complement the long-term strategy of disconnecting or removing impervious surfaces suggested above.

- Maintaining the riparian buffer composed of native plants, including mature trees. Enhancing or replanting the riparian buffer where it is inadequate. An adequate buffer will filter runoff from commercial and residential lots, improves shading (which helps to keep water temperature low), and increases large woody debris availability, and food input. It will also provide terrestrial and aquatic habitat for insects with aquatic life stages, thus enhancing recolonization potential of the macroinvertebrate community.
- Reclamation of flood plains by returning these areas to a natural state will naturally moderate floods; reduce stress on the stream channel; provide habitat for fish, wildlife, and plant resources; promote groundwater recharge; and help maintain water quality. Protection of intact flood plains should be a high priority.
- Improving channel morphology (restoring sinuosity, pool availability and diversity, and flow diversity) by installing double wing deflectors and low crib walls in the stream will improve flow conditions and habitat for macroinvertebrates. Because of the complex nature of channel restoration, any improvement activity will require the extensive involvement of a trained professional.
- Reducing erosion from land use activities with mulches, grass covers, geotextiles or riprap will reduce excess sedimentation. In stream bank stabilization projects, use of woody vegetation is preferred over riprap in most cases.

General Stream Restoration Techniques (cont'd)

- Reducing the input of winter road sand and road dirt by sweeping roads, parking areas or driveways will reduce excess sedimentation.
- Reducing the incidence of spills (accidental and deliberate) for example by improving education and training will reduce toxic contaminant input.
- Minimizing waste input from pets by picking up waste will reduce bacteria and nutrient input.
- Eliminating the potential for sewer/septic system leaks by regularly inspecting and maintaining sewer/septic systems will reduce toxic contaminant and nutrient input.
- Eliminating illicit discharges by detecting and eliminating discharges will reduce toxic contaminant and nutrient input.
- Minimizing lawn/landscaping runoff by minimizing fertilizer/pesticide use and using more efficient application methods will reduce nutrient and toxic contaminant input.
- Reducing the temperature of water discharged from a detention structure by redesigning and retrofitting existing detention with outlet structures (e.g., underdrains) that cool the discharge will reduce negative temperature effects on the stream.
- Investing in education and outreach efforts will raise public awareness for the connections between urbanization, impervious cover, stormwater runoff, and overall stream health.
- Encouraging responsible development by promoting Smart Growth or Low-Impact Development guidelines and the use of pervious pavement techniques will minimize overall effects of urbanization.
- Reducing new impervious cover by promoting shared parking areas between homes or between facilities that require parking at different times will reduce impacts related to impervious surfaces. Lowering minimum parking requirements for businesses and critically assessing the need for new impervious surfaces will have the same effect.
- Eliminating septic systems in the watershed by expanding the municipal sewer system will reduce toxic contaminant and nutrient input.
- Discouraging the use of pavement sealants on driveways and parking lots will reduce the input of toxic contaminants. A recent study showed that runoff from sealed parking lots could account for the majority of the PAH load in urban streams. PAHs are a group of toxic contaminants with known negative effects on aquatic communities. Sealants are often applied for aesthetic reasons only, and decreasing their use represents a simple way to reduce the toxics load in runoff.
- Performing regular maintenance on detention ponds will reduce export of accumulated sediment and nutrients into the stream during large storms.

Disconnection of Impervious Surfaces

The purpose here is to prevent stormwater runoff from reaching the stream directly (via the storm drain system), thus reducing % IC. There are various options for achieving this goal:

- Channel runoff from large parking lots, roads or highways into;
 - o detention/retention BMPs (e.g., dry/wet pond, extended detention pond, created wetland), preferably one equipped with a treatment system (e.g., underdrains);
 - o vegetative BMPs (e.g., vegetated buffers or swales);
 - o infiltration BMPs (e.g., dry wells, infiltration trenches/basins, bio-islands/cells);
 - o underdrained soil filters (e.g., bioretention cells, dry swales).
- Redesign and retrofit existing detention to provide extended detention for 6 month and 1 year storms.
- Guide runoff from paved driveways and roofs towards pervious areas (grass, driveway drainage strip, decorative planters, rain gardens).
- Remove curbs on roads or parking lots.
- Collect roof runoff in rain barrels and discharge into pervious areas.

All of these options for disconnection of impervious surfaces provide for a virtual elimination of runoff during light rains (which account for the majority of runoff events but not the majority of pollutant or stormwater input), reduction in peak discharge rate and volume during heavy rains, sedimentation or filtration of some pollutants, and improvement in groundwater recharge. Disconnection of impervious surfaces can often be achieved at reasonable cost and, unlike the removal of impervious surfaces (below), does not generally create material for disposal. These BMPs cover most sizes of impervious surfaces (private driveways and small building roofs to large parking lots and highways), and many have been widely used in cold climates. Disconnection of impervious surfaces is a particularly useful option in watersheds with relatively high imperviousness.

Conversion of Impervious Surfaces

This is achieved by replacing impervious surfaces with pervious surfaces, for example by using the following BMPs:

- Replace asphalt on little-used parking lots, driveways or other areas with light vehicular traffic with porous pavement blocks or grass/gravel pave.
- Replace small areas of asphalt on large parking lots with bioretention structures (bioislands/cells).
- Replace existing parking lot expanses with more space-efficient multistory parking garages (i.e., go vertical).
- Replace conventional roofs with green roofs.

These options for conversion of impervious surfaces also provide for a virtual elimination of runoff during light rains (which account for the majority of runoff events), reduction in peak discharge rate and volume during heavy rains, filtration of some pollutants, and improvement in groundwater recharge.

Structural and Non-Structural BMPs for Watersheds with Chloride as Stressor

- Follow or require the use of BMPs for snow and ice control product selection, application processes, application equipment, loading and washing, per the Maine Environmental Best Management Practices Manual for Snow and Ice Control (2015). Cover sand/salt piles and manage loading area to reduce runoff from becoming contaminated with salt.
- Develop, or require the development of a salt management plan, to ensure BMPs are used, and only areas that truly need to be salted are. Consider whether all the impervious area needs to be plowed and salted, or if some of the area could be out of service for the winter. For instance, after the busy holiday season, consider only plowing the area of a commercial parking lot that is actually used during that time period.
- For developments currently being planned, consider reducing the number of parking spaces and/or reducing road widths. If there are municipal requirements, consider revising those requirements to allow for less parking spaces or smaller road widths in certain areas.
- Reduce infiltration of salty water in vulnerable areas. While stormwater BMPs that infiltrate, or simply allowing stormwater to infiltrate, are recommended for treating nutrients, metals, and other pollutants, when chloride impact to a small stream is the biggest current or future concern, infiltration is discouraged.

- Don't infiltrate salty water if possible. For instance, don't plow onto pervious areas, and capture salty runoff so it goes to the stormwater system. Since stormwater systems can often have leaks which would allow salty water to exfiltrate into the groundwater, ensure stormwater system in vulnerable areas is secure. Stormwater ponds should be lined so the salty water doesn't infiltrate.
- Infiltrate clean, non-salty water (e.g. roof runoff) since infiltration is still a good practice if the water is not salty. The non-salty water will help flush the groundwater, and any contaminated water with it. It also will not be adding to the volume of salt-laden water that needs to be managed.
- For new development being planned, don't allow or encourage (through infiltration BMPs) future infiltration of areas likely to be salted.
- Install solar parking canopies - The canopy provides protection from the elements (and therefore reduction of salt use) and shaded parking in summer, along with the benefit of producing energy.
- Install heated sidewalks or roads to reduce the need for shoveling and salt.

ATTACHMENT E



Standard Operating Procedure
Bureau of Water Quality Date: April
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**Bureau of Water Quality
Division of Water Quality Management
Industrial Stormwater Program**

Standard Operating Procedures and Visual Monitoring Guidelines
for Stormwater Discharges Associated With Industrial Activities.

1. **APPLICABILITY.** This Standard Operating Procedure (SOP) applies to all industrial facilities covered under Maine's Multi-Sector General Permit (MSGP) for Stormwater Discharges Associated with Industrial Activity. Permitted facilities are required to perform quarterly visual monitoring of their stormwater discharges and record and maintain the results in the facility's Stormwater Pollution Prevention Plans (SWPPP).

Monitoring requirements are not required for entities that are participating in a Watershed Management Plan. The Long Creek Watershed Management Plan in the municipalities of South Portland, Portland, Westbrook and Scarborough is a Department Approved Watershed Management Plan. In addition, the requirements for visual monitoring does not apply at a facility that is inactive and unstaffed, provided that there are no industrial materials or activities exposed to stormwater. To invoke this exception, the permittee must maintain a signed and certified statement with the facility SWPPP stating that the site is inactive and unstaffed, and that there is no exposure to stormwater.

2. **PURPOSE.** This document provides guidelines for standardized collection and visual examination of quarterly visual monitoring samples for indicators of stormwater pollution as defined in Special Condition N. of the MSGP and to provide guidelines describing standardized methods of data recording and record keeping of all quarterly visual stormwater discharge monitoring data as described in Special Condition N. of the MSGP.

3. **DEFINITIONS.**

- 3.1. **MULTI-SECTOR GENERAL PERMIT (MSGP).** A general permit for Stormwater Discharges Associated with Industrial Activity. Authorizes the direct discharge or point source discharge of stormwater associated with industrial activity to waters of the State (other than groundwater) or to an MS4 (which discharges to waters of the State), provided the discharge meets the requirements stated in this permit. This permit is effective March 7, 2017 and expires March 7, 2022. It replaces Maine's 2011 MSGP for Industrial Activity issued April 26, 2011.
- 3.2. **SWPPP.** Stormwater Pollution Prevention Plan. A written plan developed and implemented by each permitted facility to reduce or eliminate pollutants which come in contact with stormwater associated with industrial activity. This plan outlines sources of potential stormwater pollutants and the methods by which these pollutants will be reduced or prevented from entering waters of the State.

Standard Operating Procedure Guidelines For Visual Monitoring of Stormwater Discharges Associated With Industrial Activities. Division of Water Quality Management, Industrial Stormwater Program



- 3.3. GRAB SAMPLE. A single sample or collection of stormwater taken during a qualifying storm event from a single stormwater outfall. The sample may be collected manually or with an automatic sampler.
- 3.4. OUTFALL. The location where collected and concentrated stormwater flows are discharged from the facility such that the first receiving waterbody into which the discharge flows, either directly or through a separate storm sewer system, is a water of the State.
- 3.5. QUALIFYING STORM EVENT. A storm event that is either precipitation, ice or snow melt that produces a measureable discharge of 0.1 inch or more in a 24-hour period at an outfall and occurs at least 72 hours from a previous qualifying storm event.

4. RESPONSIBILITIES.

- 4.1. MONITORING PROGRAM IMPLEMENTATION. The visual monitoring schedule listed below in this section is also outlined in Maine's 2016 MSGP Special Condition N. Visual examinations must be clearly documented and maintained in the facility's SWPPP. The permittee shall perform and document a quarterly visual examination of industrial stormwater discharges from each outfall which discharges stormwater associated with industrial activity from the facility.
- 4.2. OUTFALL IDENTIFICATION. The permittee shall identify each industrial stormwater outfall at the facility. All outfalls must be clearly identified on the facility site map which is part of the facility's SWPPP and presented in the written text of the SWPPP.
- 4.3. REPRESENTATIVE OUTFALLS. "Representative outfalls" mean two or more outfalls with a single drainage area that are anticipated to discharge substantially similar pollutants resulting from substantially similar industrial activities, materials, or practices occurring within the outfalls' designated drainage area. If the facility contains representative outfalls, visual monitoring may be conducted at one of the outfalls during a given monitoring period provided that subsequent samples are taken from a different outfall within the representative outfalls' drainage area. The facility is not required to monitor more than one representative outfall within a designated drainage area per monitoring event as long as the site's SWPPP contains the required information as identified in Special Condition B(15) of the MSGP.
- 4.4. EMPLOYEE TRAINING. The permittee shall ensure that all facility personnel involved in stormwater sampling are properly trained. Staff involved in sampling shall:
 - a. Be familiar with the site map and outfall locations
 - b. Walk the site to physically identify each sampling location
 - c. Become familiar with local rainfall and drainage patterns
 - d. Become competent with proper sample collection procedures



Personnel involved in sampling should also be trained in all facility safety procedures as they apply to stormwater sampling. If possible, the same individual should carry out the collection and examination of discharges for the entire permit term. Written documentation signed by a qualified person certifying that all personnel involved in sampling have been properly trained should be documented in the SWPPP.

4.5. **SAMPLE COLLECTION FREQUENCY.** Visual examination of industrial stormwater discharges must be performed once per monitoring quarter. If a qualifying storm event does not occur at the facility for a particular monitoring quarter, the permittee is excused from visual monitoring for that quarter, provided the permittee documents in the monitoring records that no qualifying event occurred. The Visual Monitoring Form shall be used to document both qualifying and non-qualifying storm events. Schedule of monitoring quarters is listed below.

- First: January 1 – March 31
- Second: April 1 – June 30
- Third: July 1 – September 30
- Fourth: October 1 – December 31

All other time specific sampling requirements are to be performed in accordance with the parameters outlined in the procedures section of this document.

4.6. **RECORD KEEPING AND REPORTING.** The permittee shall maintain all visual monitoring reports/records onsite with the SWPPP. The permittee is not required to submit visual monitoring results to DEP unless specifically requested to do so.. Requirements for recording visual examination data are outlined in the procedures section of this document.

5. PROCEDURES

5.1. **SAMPLE COLLECTION TIMING.** A grab sample must be collected from each facility outfall (except representative outfalls) once per quarter during a qualifying storm event. During a qualifying storm event, a grab sample for visual examination should be collected during the first 60 minutes or as soon thereafter, but must not to exceed 2.25 hours of when runoff begins discharging from an outfall. During monitoring quarters when snow or icemelt represents the only stormwater discharge, a grab sample must also be collected during periods of significant snow or ice melt within the first 60 minutes or as soon thereafter, but not to exceed 2.25 hours of when snow or icemelt begins discharging from an outfall. Stormwater runoff from employee parking lots, administration buildings, and landscaped areas that is not mixed with stormwater associated with industrial activity, or stormwater discharges to municipal sanitary sewers does not need to be sampled. Samples must be collected during daylight hours and normal operations.



5.2. **SAMPLE CONTAINER CLEANING AND PREPARATION.** The facility should have an adequate supply of containers prepared for collection of industrial stormwater samples from each outfall prior to collecting samples for visual examination. All sample containers used for sampling for visual examination should be certified as clean and free of residue. After each use and for cleaning the Imhoff Settling Cone or graduated beaker. A bottle brush will aid in removing any fine sediment trapped in the bottom point of the Imhoff cone:

- Wash containers in a non-phosphate detergent and tap water wash.
- Thoroughly fill and rinse containers with tap water at least three (3) times.
- Store containers closed, and in an area free of dust and other potential sample contaminants.
- If additional containers are needed to collect samples from less accessible outfalls (e.g. buckets which are attached to poles for reaching outfalls), these containers should also be cleaned and prepared as indicated above.

5.3 **MANUAL GRAB SAMPLE COLLECTION.** Manual grab samples should be collected by inserting a container under or downstream of a discharge with the container opening facing upstream, and with the opening of the container completely immersed under water, whenever possible. A sample container at least 1000 ml should be used to collect the sample. In most cases the sample container can be held in hand while the sample is collected. Less accessible outfalls may require the use of poles and buckets to collect grab samples. Take the grab from the horizontal and vertical center of the outfall. If sampling in a channel, (e.g., ditch, trench, rill) avoid stirring up bottom sediments. Avoid touching the inside of the container to prevent contamination. Transfer sample to a clear glass or plastic container if using another container such as a bucket to collect a sample from a less accessible location. If taking samples from multiple outfalls, label containers with outfall identification prior to taking samples. Make sure samples are securely capped until examination.

5.4 **COLLECTION OF GRAB SAMPLES BY AUTOMATIC SAMPLER.** Facilities which use automatic samplers for stormwater sampling may collect grab samples for visual examination by this method. Programming for collecting grab samples is specific to the type of automatic sampler. All facility personnel who collect stormwater samples using automatic samplers should be properly trained in operation of the sampler before doing so. Several different types of automatic samplers are available for stormwater sampling. However, the following guidelines should be followed when sampling regardless of the type of sampler used. All equipment must be properly cleaned, particularly the tubing and sample containers. Deionized water should be drawn through the sampler to remove any residuals prior to taking samples. Tubing should also be periodically replaced to avoid algae or bacterial growth. Additionally, a distilled/deionized water blank



sample should be taken at each outfall sampled to determine if contamination of storm-water samples by the sampling equipment has occurred. Samplers should be used in exact accordance with the manufacturers' instructions. All sampler calibration and maintenance data should be kept on site with the SWPPP.

- 5.5 **SAMPLE EXAMINATION.** Visual examination of all grab samples collected must be performed within the first sixty (60) minutes. Bring the collected samples to a well lit indoor area. Pour each sample into a separate 1 L polycarbonate plastic graduated Imhoff settling cone or 1000 ml graduated cylinder. The Imhoff settling cone or beaker should have graduations that allow volume measurement to the nearest 10 milliliter. Record the total sample volume to the nearest milliliter on the visual monitoring form. Examine the samples for the following criteria according to the instructions provided with the visual monitoring form: Foam, odor, clarity, floating solids, suspended solids, color, oil sheen, settled solids, and any other obvious indicators of stormwater pollution. Read the settled solids 1 hour after pouring the sample into the cone, as this assures that all solids are settled out of the water. Settled solids in the bottom of the cone should be measured to the nearest milliliter.

*Note: Clear polycarbonate plastic Imhoff cones are available from several scientific supply companies. You may also purchase 1000 ml graduated beakers from various scientific supply companies.

- 5.6 **SAMPLE DATA RECORDING.** Record all sample data on the visual monitoring form after examining the sample for all of the criteria listed in the instructions. The form should include the examination date and time, examination personnel, the nature of the discharge (e.g., rain, snow or icemelt), identification of outfall sampled, quality of the stormwater discharge (including observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and any other obvious indicators of stormwater pollution), and probable sources of any observed contamination including any corrective actions taken. The permittee must sign and certify the documentation in accordance with Standard Condition 2 of the Maine MSGP. All visual examination reports must be maintained with the facility SWPPP.

- 5.7 **RECOMMENDATIONS FOR SOLVING SAMPLE LOCATION PROBLEMS.** Consult guidelines listed below when it is necessary to sample an outfall located at a less than ideal location for sampling.

- **PROBLEM:** Sampling where stormwater comingles with process water or other non-stormwater discharge.

RECOMMENDATION: Attempt to sample the stormwater discharge before it mixes with the non-stormwater discharge. If this is impossible, sample the discharge and maintain a record of the visual examination data observed under both conditions on site with the



SWPPP. This will provide an indication of the contribution of any observable contamination from each source.

- **PROBLEM:** Numerous small point channels make up an outfall from which it is difficult to collect a sample.

RECOMMENDATION: Impound channels or join their flow together by building a weir or digging a ditch to collect discharge at a low point for sampling. This artificial collection point should be lined with plastic or filter fabric and stone to prevent infiltration and/or high levels of sediment.

- **PROBLEM:** Inaccessible discharge point. Examples include underwater discharges or unreachable discharges (e.g., out of a cliff, steep slope or bank of a stream).

RECOMMENDATION: Go up the pipe to sample (e.g., to the nearest manhole or inspection point). If these are not available, tap into the pipe, or sample at several locations upstream of the pipe if the pipe is the only outfall for the facility.

- **PROBLEM:** Managing multiple sampling sites to collect grab samples during the first 60 minutes of a measurable storm event.

RECOMMENDATION: Have a sampling crew ready to help when forecasts indicate that a measurable storm event is likely to occur. If this is not possible, sample the missed outfall locations during other measurable storm events and record this circumstance in the SWPPP.

- **PROBLEM:** Commingling of parking lot runoff with discharge associated with industrial activity.

RECOMMENDATION: The combined runoff must be sampled at the discharge point as near as possible to the industrial activity or at the parking lot drain inlet if there is one.

- **PROBLEM:** Sampling in manholes.

RECOMMENDATION: Sample with a collection device on the end of a pole to reach stormwater. Personnel sampling in manholes should have confined space safety training and ambient air monitoring sampling devices if manholes have to be entered.

- **PROBLEM:** Run-on from other property.

RECOMMENDATION: If possible, collect and examine a sample of the stormwater at the border of the property where the run-on occurs. Then, collect and examine a sample of the stormwater at a facility outfall downstream of the run-on point. Note any ob-



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servable differences between the samples and maintain the documentation with the SWPPP.

- When confronted with other difficult sampling scenarios not addressed above, the permittee should consult DEP for guidance on how to best address the situation.

6. REFERENCES

- 5.5** GUIDANCE MANUAL FOR THE MONITORING AND REPORTING REQUIREMENTS OF THE NPDES MULTI-SECTOR STORM WATER GENERAL PERMIT
United States Environmental Protection Agency, Office of Water (EN-336), EPA 833-B-99-001(January, 1999)
- 5.6** NPDES STORM WATER SAMPLING GUIDANCE DOCUMENT
United States Environmental Protection Agency, Office of Water (EN-336), EPA 833-8-92-001 (July, 1992)
- 5.7** STATE OF MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION MULTI-SECTOR GENERAL PERMIT MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM STORMWATER DISCHARGE ASSOCIATED WITH INDUSTRIAL ACTIVITY
Maine Department of Environmental Protection, Bureau Water Quality, Waste Discharge License # W-008227-MN-C-RR (Dec. 2016)

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

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A. GENERAL PROVISIONS

1. General compliance. All discharges shall be consistent with the terms and conditions of this permit; any changes in production capacity or process modifications which result in changes in the quantity or the characteristics of the discharge must be authorized by an additional license or by modifications of this permit; it shall be a violation of the terms and conditions of this permit to discharge any pollutant not identified and authorized herein or to discharge in excess of the rates or quantities authorized herein or to violate any other conditions of this permit.

2. Other materials. Other materials ordinarily produced or used in the operation of this facility, which have been specifically identified in the application, may be discharged at the maximum frequency and maximum level identified in the application, provided:

- (a) They are not
 - (i) Designated as toxic or hazardous under the provisions of Sections 307 and 311, respectively, of the Federal Water Pollution Control Act; Title 38, Section 420, Maine Revised Statutes; or other applicable State Law; or
 - (ii) Known to be hazardous or toxic by the licensee.
- (b) The discharge of such materials will not violate applicable water quality standards.

3. Duty to comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of State law and the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

- (a) The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act, and 38 MRSA, §420 or Chapter 530.5 for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.
- (b) Any person who violates any provision of the laws administered by the Department, including without limitation, a violation of the terms of any order, rule license, permit, approval or decision of the Board or Commissioner is subject to the penalties set forth in 38 MRSA, §349.

4. Duty to provide information. The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

5. Permit actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

6. Reopener clause. The Department reserves the right to make appropriate revisions to this permit in order to establish any appropriate effluent limitations, schedule of compliance or other provisions which may be authorized under 38 MRSA, §414-A(5).

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7. Oil and hazardous substances. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject under section 311 of the Federal Clean Water Act; section 106 of the Federal Comprehensive Environmental Response, Compensation and Liability Act of 1980; or 38 MRSA §§ 1301, et. seq.

8. Property rights. This permit does not convey any property rights of any sort, or any exclusive privilege.

9. Confidentiality of records. 38 MRSA §414(6) reads as follows. "Any records, reports or information obtained under this subchapter is available to the public, except that upon a showing satisfactory to the department by any person that any records, reports or information, or particular part or any record, report or information, other than the names and addresses of applicants, license applications, licenses, and effluent data, to which the department has access under this subchapter would, if made public, divulge methods or processes that are entitled to protection as trade secrets, these records, reports or information must be confidential and not available for public inspection or examination. Any records, reports or information may be disclosed to employees or authorized representatives of the State or the United States concerned with carrying out this subchapter or any applicable federal law, and to any party to a hearing held under this section on terms the commissioner may prescribe in order to protect these confidential records, reports and information, as long as this disclosure is material and relevant to any issue under consideration by the department."

10. Duty to reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.

11. Other laws. The issuance of this permit does not authorize any injury to persons or property or invasion of other property rights, nor does it relieve the permittee of its obligation to comply with other applicable Federal, State or local laws and regulations.

12. Inspection and entry. The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the EPA Administrator), upon presentation of credentials and other documents as may be required by law, to:

- (a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- (d) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

B. OPERATION AND MAINTENANCE OF FACILITIES

1. General facility requirements.

- (a) The permittee shall collect all waste flows designated by the Department as requiring treatment and discharge them into an approved waste treatment facility in such a manner as to

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- maximize removal of pollutants unless authorization to the contrary is obtained from the Department.
- (b) The permittee shall at all times maintain in good working order and operate at maximum efficiency all waste water collection, treatment and/or control facilities.
 - (c) All necessary waste treatment facilities will be installed and operational prior to the discharge of any wastewaters.
 - (d) Final plans and specifications must be submitted to the Department for review prior to the construction or modification of any treatment facilities.
 - (e) The permittee shall install flow measuring facilities of a design approved by the Department.
 - (f) The permittee must provide an outfall of a design approved by the Department which is placed in the receiving waters in such a manner that the maximum mixing and dispersion of the wastewaters will be achieved as rapidly as possible.

2. Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

3. Need to halt or reduce activity not a defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

4. Duty to mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

5. Bypasses.

- (a) Definitions.
 - (i) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
 - (ii) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- (b) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (c) and (d) of this section.
- (c) Notice.
 - (i) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

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- (ii) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph D(1)(f), below. (24-hour notice).
- (d) Prohibition of bypass.
 - (i) Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:
 - (A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (C) The permittee submitted notices as required under paragraph (c) of this section.
 - (ii) The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three conditions listed above in paragraph (d)(i) of this section.

6. Upsets.

- (a) Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- (b) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (c) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- (c) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - (i) An upset occurred and that the permittee can identify the cause(s) of the upset;
 - (ii) The permitted facility was at the time being properly operated; and
 - (iii) The permittee submitted notice of the upset as required in paragraph D(1)(f), below. (24 hour notice).
 - (iv) The permittee complied with any remedial measures required under paragraph B(4).
- (d) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

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C. MONITORING AND RECORDS

1. General Requirements. This permit shall be subject to such monitoring requirements as may be reasonably required by the Department including the installation, use and maintenance of monitoring equipment or methods (including, where appropriate, biological monitoring methods). The permittee shall provide the Department with periodic reports on the proper Department reporting form of monitoring results obtained pursuant to the monitoring requirements contained herein.

2. Representative sampling. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. If effluent limitations are based wholly or partially on quantities of a product processed, the permittee shall ensure samples are representative of times when production is taking place. Where discharge monitoring is required when production is less than 50%, the resulting data shall be reported as a daily measurement but not included in computation of averages, unless specifically authorized by the Department.

3. Monitoring and records.

- (a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- (b) Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years, the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.
- (c) Records of monitoring information shall include:
 - (i) The date, exact place, and time of sampling or measurements;
 - (ii) The individual(s) who performed the sampling or measurements;
 - (iii) The date(s) analyses were performed;
 - (iv) The individual(s) who performed the analyses;
 - (v) The analytical techniques or methods used; and
 - (vi) The results of such analyses.
- (d) Monitoring results must be conducted according to test procedures approved under 40 CFR part 136, unless other test procedures have been specified in the permit.
- (e) State law provides that any person who tampers with or renders inaccurate any monitoring devices or method required by any provision of law, or any order, rule license, permit approval or decision is subject to the penalties set forth in 38 MRSA, §349.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

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D. REPORTING REQUIREMENTS

1. Reporting requirements.

- (a) Planned changes. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
 - (i) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
 - (ii) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under Section D(4).
 - (iii) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;
- (b) Anticipated noncompliance. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- (c) Transfers. This permit is not transferable to any person except upon application to and approval of the Department pursuant to 38 MRSA, § 344 and Chapters 2 and 522.
- (d) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.
 - (i) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Department for reporting results of monitoring of sludge use or disposal practices.
 - (ii) If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR part 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Department.
 - (iii) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Department in the permit.
- (e) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
- (f) Twenty-four hour reporting.
 - (i) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

(ii) The following shall be included as information which must be reported within 24 hours under this paragraph.

(A) Any unanticipated bypass which exceeds any effluent limitation in the permit.

(B) Any upset which exceeds any effluent limitation in the permit.

(C) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit to be reported within 24 hours.

(iii) The Department may waive the written report on a case-by-case basis for reports under paragraph (f)(ii) of this section if the oral report has been received within 24 hours.

(g) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (d), (e), and (f) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (f) of this section.

(h) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.

2. Signatory requirement. All applications, reports, or information submitted to the Department shall be signed and certified as required by Chapter 521, Section 5 of the Department's rules. State law provides that any person who knowingly makes any false statement, representation or certification in any application, record, report, plan or other document filed or required to be maintained by any order, rule, permit, approval or decision of the Board or Commissioner is subject to the penalties set forth in 38 MRSA, §349.

3. Availability of reports. Except for data determined to be confidential under A(9), above, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. As required by State law, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal sanctions as provided by law.

4. Existing manufacturing, commercial, mining, and silvicultural dischargers. In addition to the reporting requirements under this Section, all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Department as soon as they know or have reason to believe:

(a) That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(i) One hundred micrograms per liter (100 ug/l);

(ii) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

(iii) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with Chapter 521 Section 4(g)(7); or

(iv) The level established by the Department in accordance with Chapter 523 Section 5(f).

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

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- (b) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
- (i) Five hundred micrograms per liter (500 ug/l);
 - (ii) One milligram per liter (1 mg/l) for antimony;
 - (iii) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with Chapter 521 Section 4(g)(7); or
 - (iv) The level established by the Department in accordance with Chapter 523 Section 5(f).

5. Publicly owned treatment works.

- (a) All POTWs must provide adequate notice to the Department of the following:
- (i) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA or Chapter 528 if it were directly discharging those pollutants.
 - (ii) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
 - (iii) For purposes of this paragraph, adequate notice shall include information on (A) the quality and quantity of effluent introduced into the POTW, and (B) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.
- (b) When the effluent discharged by a POTW for a period of three consecutive months exceeds 80 percent of the permitted flow, the permittee shall submit to the Department a projection of loadings up to the time when the design capacity of the treatment facility will be reached, and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans.

E. OTHER REQUIREMENTS

1. Emergency action - power failure. Within thirty days after the effective date of this permit, the permittee shall notify the Department of facilities and plans to be used in the event the primary source of power to its wastewater pumping and treatment facilities fails as follows.

- (a) For municipal sources. During power failure, all wastewaters which are normally treated shall receive a minimum of primary treatment and disinfection. Unless otherwise approved, alternate power supplies shall be provided for pumping stations and treatment facilities. Alternate power supplies shall be on-site generating units or an outside power source which is separate and independent from sources used for normal operation of the wastewater facilities.
- (b) For industrial and commercial sources. The permittee shall either maintain an alternative power source sufficient to operate the wastewater pumping and treatment facilities or halt, reduce or otherwise control production and or all discharges upon reduction or loss of power to the wastewater pumping or treatment facilities.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

STANDARD CONDITIONS APPLICABLE TO ALL PERMITS

2. Spill prevention. (applicable only to industrial sources) Within six months of the effective date of this permit, the permittee shall submit to the Department for review and approval, with or without conditions, a spill prevention plan. The plan shall delineate methods and measures to be taken to prevent and or contain any spills of pulp, chemicals, oils or other contaminants and shall specify means of disposal and or treatment to be used.

3. Removed substances. Solids, sludges trash rack cleanings, filter backwash, or other pollutants removed from or resulting from the treatment or control of waste waters shall be disposed of in a manner approved by the Department.

4. Connection to municipal sewer. (applicable only to industrial and commercial sources) All wastewaters designated by the Department as treatable in a municipal treatment system will be cosigned to that system when it is available. This permit will expire 90 days after the municipal treatment facility becomes available, unless this time is extended by the Department in writing.

F. DEFINITIONS. For the purposes of this permit, the following definitions shall apply. Other definitions applicable to this permit may be found in Chapters 520 through 529 of the Department's rules

Average means the arithmetic mean of values taken at the frequency required for each parameter over the specified period. For bacteria, the average shall be the geometric mean.

Average monthly discharge limitation means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month. Except, however, bacteriological tests may be calculated as a geometric mean.

Average weekly discharge limitation means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Best management practices ("BMPs") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Composite sample means a sample consisting of a minimum of eight grab samples collected at equal intervals during a 24 hour period (or a lesser period as specified in the section on monitoring and reporting) and combined proportional to the flow over that same time period.

Continuous discharge means a discharge which occurs without interruption throughout the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes, or other similar activities.

Daily discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the day.

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Discharge Monitoring Report ("DMR") means the EPA uniform national form, including any subsequent additions, revisions, or modifications for the reporting of self-monitoring results by permittees. DMRs must be used by approved States as well as by EPA. EPA will supply DMRs to any approved State upon request. The EPA national forms may be modified to substitute the State Agency name, address, logo, and other similar information, as appropriate, in place of EPA's.

Flow weighted composite sample means a composite sample consisting of a mixture of aliquots collected at a constant time interval, where the volume of each aliquot is proportional to the flow rate of the discharge.

Grab sample means an individual sample collected in a period of less than 15 minutes.

Interference means a Discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

- (1) Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
- (2) Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

Maximum daily discharge limitation means the highest allowable daily discharge.

New source means any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:

- (a) After promulgation of standards of performance under section 306 of CWA which are applicable to such source, or
- (b) After proposal of standards of performance in accordance with section 306 of CWA which are applicable to such source, but only if the standards are promulgated in accordance with section 306 within 120 days of their proposal.

Pass through means a discharge which exits the POTW into waters of the State in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

Permit means an authorization, license, or equivalent control document issued by EPA or an approved State to implement the requirements of 40 CFR parts 122, 123 and 124. Permit includes an NPDES general permit (Chapter 529). Permit does not include any permit which has not yet been the subject of final agency action, such as a draft permit or a proposed permit.

Person means an individual, firm, corporation, municipality, quasi-municipal corporation, state agency, federal agency or other legal entity.

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Point source means any discernible, confined and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation or vessel or other floating craft, from which pollutants are or may be discharged.

Pollutant means dredged spoil, solid waste, junk, incinerator residue, sewage, refuse, effluent, garbage, sewage sludge, munitions, chemicals, biological or radiological materials, oil, petroleum products or byproducts, heat, wrecked or discarded equipment, rock, sand, dirt and industrial, municipal, domestic, commercial or agricultural wastes of any kind.

Process wastewater means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

Publicly owned treatment works ("POTW") means any facility for the treatment of pollutants owned by the State or any political subdivision thereof, any municipality, district, quasi-municipal corporation or other public entity.

Septage means, for the purposes of this permit, any waste, refuse, effluent sludge or other material removed from a septic tank, cesspool, vault privy or similar source which concentrates wastes or to which chemicals have been added. Septage does not include wastes from a holding tank.

Time weighted composite means a composite sample consisting of a mixture of equal volume aliquots collected over a constant time interval.

Toxic pollutant includes any pollutant listed as toxic under section 307(a)(1) or, in the case of sludge use or disposal practices, any pollutant identified in regulations implementing section 405(d) of the CWA. Toxic pollutant also includes those substances or combination of substances, including disease causing agents, which after discharge or upon exposure, ingestion, inhalation or assimilation into any organism, including humans either directly through the environment or indirectly through ingestion through food chains, will, on the basis of information available to the board either alone or in combination with other substances already in the receiving waters or the discharge, cause death, disease, abnormalities, cancer, genetic mutations, physiological malfunctions, including malfunctions in reproduction, or physical deformations in such organism or their offspring.

Wetlands means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Whole effluent toxicity means the aggregate toxic effect of an effluent measured directly by a toxicity test.

STATE OF MAINE

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Small Municipal Separate Storm Sewer System Systems

Maine Pollutant Discharge Elimination System Permit

**FACT SHEET AND
RESPONSE TO COMMENTS**



Bureau of Water Quality

December 6, 2019

MEPDES Permit #MER41000

Revised October 14, 2020

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PART I. BACKGROUND

A. Clean Water Act

Section 301(a) of the Clean Water Act (CWA) provides that “the discharge of any pollutant by any person shall be unlawful” unless the discharge is in compliance with certain other sections of the Act. 33 U.S.C. 1311(a). The CWA defines “discharge of a pollutant” as “(A) any addition of any pollutant to navigable waters from any point source, (B) any addition of any pollutant to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft.” 33 U.S.C. 1362(12).

In 1987, Congress amended the Clean Water Act to better regulate stormwater discharges. Congress enacted Section 402(p) of the Clean Water Act, which requires that “permits for discharges from municipal storm sewers . . . shall include a requirement to effectively prohibit non-stormwater discharges into the storm sewers; and shall require controls to reduce the discharge of pollutants to the maximum extent practicable...and such other provisions as the Administrator . . . determines appropriate for the control of such pollutants.” CWA §§ 402(p)(3)(B)(ii)-(iii).

B. General Permit (GP) Authority

Section 301(a) of the CWA, 33 USC 1311(a), and Maine law 38 M.R.S. §413 makes it unlawful to discharge pollutants to waters of the United States or state without a permit. The State of Maine may issue a GP authorizing the discharge of certain pollutants pursuant to 06-096 CMR 529. 06-096 CMR Chapter 521§9 authorizes the State of Maine to require Maine Pollutant Discharge Elimination System (MEPDES) permits for the discharge storm water from regulated MS4 communities.

Section 402 of the Act provides that the Administrator of the United States Environmental Protection Agency (EPA) may issue National Pollutant Discharge Elimination System (NPDES) permits or the State of Maine can issue MEPDES permits for discharges of any pollutant into waters of the United States according to such specific terms and conditions as the Administrator may require. Although such permits are generally issued to individual subcategories of discharges, including stormwater point source discharges, within a geographic area. 40 CFR §122.28(a)(1) and (2)(i). EPA and the State of Maine issue GPs under the same CWA authority as individual permits. Violations of a general permit condition constitute a violation of the CWA and may subject the discharger to the enforcement remedies provided in Section 309 of the Act, including injunctive relief and penalties.

PART I. BACKGROUND

C. Authorization Under the Permit

The GP authorizes stormwater discharges from small municipal separate storm sewer systems meeting the definition of “small municipal separate storm sewer system” at 40 CFR § 122.26(b)(16) and described in 40 CFR § 122.32(a)(1) (applicable to small MS4s located in an urbanized area) or designated by EPA as needing a permit pursuant to 40 CFR § 122.32(a)(2) or 40 CFR § 122.26(f).

Phase II stormwater regulations, among other things, set forth requirements for stormwater discharges from small municipal separate storm sewer systems, (“small MS4s”) which are defined at 40 CFR § 122.26(b)(16) as follows:

Small municipal separate storm sewer system means all separate storm sewers that are:

- (i) Owned or operated by the United States, a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes including special districts under State law such as a sewer, flood control district or drainage district, or similar entity or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of United States.
- (ii) Not defined as “large” or “medium” municipal separate storm sewer systems pursuant to [40CFR § 122.26(b)(4) or (b)(7)] or designated under [40 CFR § 122.26(a)(1)(v)].
- (iii) This term includes systems similar to separate storm sewer systems in municipalities such as military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.

Most small MS4s that will be authorized by this GP are located entirely within an urbanized area as defined by the Bureau of the Census. On March 26, 2012, the Census Bureau published the final listing of urbanized areas for the 2010 census. An urbanized area encompasses a densely settled territory that consists of core census block groups or blocks that have a population of at least 1,000 people per square mile and surrounding census blocks that have an overall density of at least 500 people per square mile or are included to link outlying densely settled territory with a densely settled urban core. Urbanized areas are not divided along political boundaries. Because of this non-political division, a municipality may be entirely in an urbanized area or partially in an urbanized area. The Phase II regulations require a small MS4 to implement its program in the urbanized area. If a small MS4 is only partially within the urbanized area, the MS4 may decide to implement the SWMP within its entire jurisdiction, or just in the urbanized area. Both approaches are acceptable under EPA’s regulations. However, EPA encourages MS4s to implement the Storm Water Management Plan (SWMP) in the entire jurisdiction, especially for areas that discharge to waters that are subject to approved total maximum daily loads (TMDLs).

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The regulations at 40 CFR § 122.32(a)(1) state that an MS4 is regulated by the program if the MS4 is located in an urbanized area as determined by the latest Decennial Census by the Bureau of the Census unless granted a waiver by the permitting authority. The latest Decennial Census was conducted in 2010. MS4s located in an urbanized area as determined by the 2010 Census will be subject to the stormwater requirements for small MS4s unless they receive a waiver in accordance with 40 CFR §122.32(c) or 40 CFR § 123.35(d). MS4s located in an urbanized area as defined by the 2010 census remain subject to the stormwater regulation even if there is a change in the reach of “urbanized area” because of a change in census data. This is consistent with the preamble to the Phase II rule that states “...a small MS4 that is automatically designated into the NPDES program for stormwater under an urbanized area calculation for any given Census year will remain regulated regardless of the results of subsequent urbanized area calculations.” 64 FR 68752, December 8, 1999.

As stated previously, this GP applies to small MS4s located in urbanized areas and those MS4s designated by EPA to need a permit. EPA has authority under the CWA to designate stormwater sources other than those that are specifically identified by the stormwater regulations as needing to obtain a permit when necessary to protect water quality or remedy localized water quality impacts, including small MS4s not in an urbanized area. If EPA decides to designate additional MS4s, EPA will provide public notice and an opportunity to comment on the designation. Once designated, such sources would be eligible for coverage under this general permit.

D. Obtaining Authorization to Discharge

The regulations at 40 CFR § 122.33 require small MS4s who apply for a GP to submit information on best management practices (BMPs) and measurable goals designed to meet the minimum control measures (MCMs) required by 40 CFR § 122.34(d). To obtain authorization to discharge, the operator of a small MS4 must submit a complete and accurate Notice of Intent (NOI) containing the information requested in Part III(D) of the GP. The NOI must be signed in accordance with the requirements as specified in Part III(D)(2) of the GP. The NOI must be submitted on or before March 31, 2021. The effective date of the permit is July 1, 2022. A small MS4 will be authorized to discharge under this permit upon the issuance of written authorization by the Maine Department of Environmental Protection (MDEP).

The MS4 operators must complete the information required in the NOI to the best of their knowledge. The NOI must contain the details of an MS4’s planned approach to meeting the terms of the GP. The NOI should detail milestones as well as interim steps. The NOI does not require the development of technical or engineering reports for its submission. The GP does not incorporate the contents of the NOI into the permit as conditions. The GP and the permittee specific MDEP Order conditions are those that are contained in the GP and the permittee specific MDEP Order and those are the requirements the permittee is expected to meet. The NOI presents the BMPs that the MS4 intends to implement to meet the permit terms. Since the BMPs presented in the NOI are not incorporated into the GP and the permittee specific MDEP Order, this means that a permittee is able to adjust the initially planned BMPs based on progress and circumstances encountered during program implementation.

PART I. BACKGROUND

All NOIs must be submitted to MDEP **on or before March 31, 2021**, and addressed to the MS4 Program Manager as follows:

Ms. Rhonda Poirier
MS4 Program Manager
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017

The GP provides continued authorization for permittees authorized by the MS4-2013 permit whose authorization was effective beginning July 1, 2013 and who submits a complete and accurate NOI on or before March 31, 2021. Permittees will remain authorized under the MS4-2013 permit until authorization under the newly issued GP is either granted or denied.

NOIs will be available for public comment for a minimum of 30 days. Once MDEP determines that an NOI is complete, the NOI will be posted on MDEP's website. Any comments on an NOI must be submitted to the MDEP. MDEP will work with the municipality to address public comments as appropriate. Following the close of the public comment period on the NOI, the MDEP will issue a permittee specific MDEP Order for a 30-day public comment period that establishes a list of required actions and corresponding schedules of compliance for a limited number of BMPs associated with the implementation of the GP. Following the 30-day comment period, the MDEP will issue a final permittee specific MDEP Order. An applicant is authorized to discharge when the GP becomes effective and the applicable permittee specific DEP Order establishing a list of required actions and a corresponding schedule of compliance for the action items is issued as a final agency action.

E. Individual and Alternative Permits

Any owner or operator of a small MS4 authorized by a GP may request to be excluded from authorization under a GP by applying for an individual permit pursuant to 40 CFR § 122.33(b)(2)(i) or (ii). This request shall be made by submitting a Maine Pollutant Discharge Elimination System (MEPDES) permit application together with reasons supporting the request. The MDEP may require any permittee authorized by a general permit to apply for and obtain an individual permit. Any interested person may petition the MDEP to take this action. 40 CFR § 122.28(b)(3).

However, individual permits will not be issued for sources authorized by the GP unless it can be clearly demonstrated that inclusion under the GP is inappropriate or an individual permit is more applicable to the applicant's system.

The MDEP may consider requiring an individual permit when:

- a. The discharger is not in compliance with the terms and conditions of the GP;
- b. A change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollutants applicable to the point source;

PART I. BACKGROUND

- c. Effluent limitations guidelines are subsequently promulgated for the point sources covered by the GP;
- d. A Water Quality Management Plan (WQMP) or Total Maximum Daily Load (TMDL) containing requirements applicable to such point sources is approved;
- e. Circumstances have changed since the time of the request to be covered so that the discharger is no longer appropriately controlled under the GP, or either a temporary or permanent reduction or elimination of the authorized discharge is necessary; and
- f. The discharge(s) is a significant contributor of pollutant or in violation of state water quality standards for the receiving water.

In accordance with 40 CFR § 122.28(b)(3)(iv), the applicability of the GP is automatically terminated on the effective date of the individual permit.

Additionally, any interested person may petition the MDEP to require a MEPDES permit for a discharge composed entirely of stormwater which contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States pursuant to 40 CFR § 122.26(f) or waters of the state pursuant to Maine law 38 M.R.S. §413.

PART II. BASIS FOR CONDITIONS OF THE DRAFT MEPDES GENERAL PERMIT

A. Maine Pollutant Discharge Elimination System (MEPDES) Permits

A MEPDES permit authorizes the discharge of a pollutant or pollutants into a receiving water under certain conditions. The MEPDES program relies on two types of permits: individual and general. An individual permit is a permit specifically tailored for an individual discharger or situations that require individual consideration. Upon receiving the appropriate permit application(s), the permitting authority develops a draft permit for public comment for that particular discharger based on the information contained in the permit application (e.g., type of activity, nature of discharge, receiving water quality). Following consideration of public comments, a final permit is then issued to the discharger for a specific time period (not to exceed five years) with a provision for reapplying for further permit coverage prior to the expiration date.

In contrast, a GP covers multiple facilities/sites/activities within a specific category for a specific period of time (not to exceed 5 years). For GPs, the MDEP develops and issues the permit in advance, with dischargers then generally obtaining coverage under the permit through submission of a NOI. A GP is also subject to public comment prior to issuance. For the case of this GP, the MDEP is the permitting authority. The permitting authority reviews the permittees and geographic area and develops appropriate permits considering technology and water quality. In addition, the Department may issue a permit that

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has different requirements from a NPDES permit issued by the EPA for similar types of discharges, as long as it satisfies the regulatory requirements of the NPDES program, the CWA, and state law.

Under 40 CFR 122.28 and 06-096 Code of Maine Regulation (CMR) Chapter 529, §(2)(a)(1)(iv), GPs may be written to cover categories of point sources having common elements, such as facilities that involve the same or substantially similar types of operations, that discharge the same types of wastes, or that are more appropriately regulated by a GP.

The final MS4 GP Remand Rule promulgated by the EPA in December 2016, establishes two alternative approaches an NPDES/MEPDES permitting authority can use to issue and administer small MS4 GPs that address a partial remand of the Phase II stormwater regulations by the U.S. Court of Appeals for the Ninth Circuit. Both approaches ensure that the permitting authority establishes what is necessary for the MS4 to “reduce the discharge of pollutants from the MS4 to the maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act,” referred to as the “MS4 permit standard,” and that the public participation requirements of the CWA are met.

The final rule amends 40 CFR § 122.28(d) to require permitting authorities to choose one of these two types of general permits whenever issuing a small MS4 general permit. Permitting authorities are required to select either the “Comprehensive General Permit” or “Two-Step General Permit”. The “Comprehensive General Permit” is essentially the “Traditional General Permit”, or “Option 1”, from the proposed rule. The “Two-Step General Permit” encompasses both the “Procedural Approach”, or “Option 2” and the “hybrid approach” that was described as part of “Option 3” from the proposed rule. The Two-Step General Permit allows the permitting authority to establish some requirements in the general permit and others applicable to individual MS4s through a second proposal and public comment process. The State of Maine has selected the Two-Step General Permit approach.

Part IV of the GP sets forth the requirements for the MS4 to “reduce pollutants in discharges to the maximum extent practicable (MEP), including management practices, control techniques, and system, design and engineering methods...” CWA § 402(p)(3)(B)(iii). MEP is the statutory standard that describes the level of pollutant reduction that MS4 operators must achieve, but also includes a recognition that the effort may be increased under some circumstances. The MDEP believes implementation of best management practices (BMPs) designed to control stormwater runoff from the MS4 is generally the most appropriate approach for reducing pollutants to satisfy the MEP standard. Pursuant to 40 CFR §122.44(k), the GP requires permittees to control stormwater discharges through BMPs, including development and implementation of a comprehensive stormwater management program (SWMP) as the mechanism to achieve the required pollutant reductions.

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Neither the CWA nor the stormwater regulations provide a specific definition of MEP. The lack of a detailed definition allows flexibility in MS4 permitting. The MDEP views the MEP standard in the CWA as an iterative process. MEP should continually adapt to current conditions and BMP effectiveness. The MDEP and EPA believe that compliance with the MEP requirements (Part IV) of this draft GP will meet the MEP standard of the CWA and the stormwater regulations. The iterative process of MEP consists of a municipality developing a program consistent with specific permit requirements, implementing the program, evaluating the effectiveness of BMPs included as part of the program, revising those parts of the program that are not effective at controlling pollutants, implementing the revisions, and then evaluating again. This process continues until water quality standards are attained. The changes contained in the GP from the previous permit reflect the iterative process of MEP. Accordingly, the GP contains more specific tasks and details than the previous MS4 permit.

MS4s are required to implement and enforce SWMPs designed to reduce pollutants discharged from their MS4s to the maximum extent practicable and to protect water quality. Implementation of a program to these standards should ensure the protection of aquatic life and maintenance of the receiving water as an aquatic habitat.

In addition, the GP prohibits violations of state water quality standards and imposes a variety of additional conditions on discharges to Urban Impaired Streams (UISs) which are found in Appendix B of the GP.

The conditions of this GP also aim to achieve and maintain water quality standards through the antidegradation provisions contained within the Clean Water Act (CWA).

B. Non- Numeric Effluent Limitations

When the regulatory agencies have not promulgated national limitation guidelines (NEGs) for a category of discharges, or if an operator is discharging a pollutant not covered by a NEG, permit limitations may be based on the best professional judgment (BPJ) of the agency or permit writer. For this permit, effluent limits are based on BPJ. The BPJ limits in this permit are in the form of non-numeric control measures, commonly referred to as best management practices (BMPs). Non-numeric limits are employed under limited circumstances, as described in 40 CFR § 122.44(k) and 06-096 CMR Chapter 525 §5(k). 40 CFR § 122.44(k), and 06-096 CMR Chapter 525 §5(k) provides that permits may include BMPs to control or abate the discharge of pollutants when: “(1)[a]uthorized under section 304(e) of the CWA for the control of toxic pollutants and hazardous substances from ancillary industrial activities; (2) [a]uthorized under section 402(p) of the CWA for the control of stormwater discharges; (3) [n]umeric effluent limitations are infeasible; or (4) [t]he practices are reasonable to achieve effluent limitations and standards or to carry out the purpose of the CWA.” The GP regulates stormwater discharges with BMPs. Due to the variability associated with stormwater, EPA and the MDEP believe the use of BMPs is currently the most appropriate method to regulate discharges of stormwater from municipal systems in accordance with the above referenced regulation.

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1. Water Quality Based Effluent Limitations

If an MS4 discharges into waters that are meeting water quality standards, and there is no specific evidence to suggest that a permittee's MS4 discharges would cause or contribute to exceedances of water quality standards, then the permittee is subject to the permit's MEP- based minimum control measures to protect water quality. "Absent evidence to the contrary, EPA and MDEP presume that a small MS4 program that implements the six minimum measures... "does not require more stringent limitations to meet water quality standards." However, MEP-level controls alone may not suffice to eliminate stormwater-based exceedances of water quality standards. Consequently, EPA and the MDEP have determined that it is necessary and "appropriate" to include water quality based effluent limitations (WQBELs). The purpose of these parts is to establish the broad inclusion of water quality-based effluent limitations for those discharges requiring additional controls in order to achieve water quality standards. For example, discharges that would cause or contribute to an instream exceedance of water quality standards are not authorized. Similarly, discharges into any water for which a TMDL had been established were not authorized unless they were consistent with the TMDL [see Part IV(D)]. Since the issuance of the MS4-2013 permit, permittees have implemented SWMPs to comply with the conditions of that permit. This GP requires the permittees to implement an updated SWMP to comply with several additional and strengthened permit conditions, which should result in further water quality improvements.

2. Allowable Non-Stormwater Discharges

Part IV(3)(h) of the GP lists sources of non-stormwater discharges contained in 40 CFR § 122.34(b)(3). These are sources of allowable non-stormwater into the MS4. However, if the permittee or the MDEP determines that these sources (either categorically or individually) are significant contributors of pollutants to the MS4, the permittee must control or prohibit these sources of non-stormwater as part of its illicit discharge detection and elimination (IDDE) program. The GP does not require any action by the permittee regarding these discharges if the permittee determines that these sources are not significant contributors of pollutants to the MS4. The EPA and MDEP expect MS4s to examine the sources of non-stormwater discharges as categories and examine their potential to contribute pollutants to the MS4. For example, potable water may not contribute pollutants that affect the MS4 discharges because the source is associated with the water supply. However, foundation drains and crawl spaces may be within residential basements and the type of pollutants associated with the non-stormwater discharge may be unknown. The permittee must document its determinations on the categories of non-stormwater in its SWMP and must prohibit any sources identified as a significant contributor of pollutants.

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3. Discharges to Waterbodies with an Approved TMDL

The EPA and MDEP regulations require that TMDLs be developed for water bodies listed pursuant to CWA §303(d) as not meeting applicable standards (see 40 CFR § 130.7 for the regulations associated with TMDLs). A TMDL specifies the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards. The TMDL allocates pollutant loadings to the impaired waterbody from all point and non-point pollutant sources. Regulations at 40 CFR § 130.2 define the TMDL as “the sum of the individual waste load allocations (WLA) for point sources and load allocations (LAs) for non-point sources.” Mathematically, a TMDL is expressed as:

$$\text{TMDL} = \sum \text{WLA} + \sum \text{LA} + \text{MOS}$$

The MOS (margin of safety) takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality in determining an acceptable load of pollutants to a receiving water. In addition to the MOS, WLAs and LAs make up portions of a receiving water’s loading capacity. The TMDL forms the basis for an implementation plan to meet the loading capacity of the waterbody. Implementation of the plan should result in the achievement of water quality standards. See Part IV(E) of this GP for compliance with TMDL requirements.

4. Requirements to Reduce Pollutants to the Maximum Extent Practicable (MEP)

MEP is the statutory standard that established the level of pollutant reduction required by permits for operators of MS4s. All MS4 permittees are subject to MEP requirements. There is not a precise regulatory definition of MEP. Rather, as EPA explained in the preamble to the Phase II regulations, “MS4s need the flexibility to optimize reductions in storm water pollutants on a location-by-location basis.... The pollutant reductions that represent MEP may be different for each small MS4, given the unique local hydrologic and geologic concerns that may exist and the differing possible pollutant control strategies.” Accordingly, the GP requires each permittee to determine appropriate BMPs to satisfy each of the six minimum control measures through an evaluative process.

MEP is expected to continue to adapt based on changing conditions, improving BMP effectiveness, and increasing operator capabilities. Practices that were considered MEP under the MS4-2013 permit may no longer meet that standard and must be improved or expanded based on changed conditions. The MDEP developed the MEP provisions in this GP after reviewing annual reports and stormwater management plans to consider measures being employed by MS4s to implement the MS4-2013 permit. The MDEP also reviewed other MS4 general permits in New England to better understand what other MS4s are being required to do to control stormwater pollutants in order to determine what would be practicable enhancements to the MS4-2013 MEP requirements. The MEP provisions in this GP reflect the approach of building on the existing programs of the 2013 permit with additional requirements that the MDEP believes are practicable and satisfy the MEP statutory requirement.

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C. Stormwater Management Program (SWMP)

The SWMP is a written document required by the GP. The SWMP is the mechanism used to document the practices the permittee is implementing to meet the terms and conditions of the GP. The SWMP is expected to accurately reflect the permittee's activities. The document should be updated and/or modified during the permit term as the permittee's activities are modified or changed during the permit term or to incorporate additional BMPs to comply with permit conditions during the permit term.

The GP requires that the SWMP be a written document and signed in accordance with Part III(A)(2)(a). The SWMP must be available at the office or facility of the person identified on the NOI as the contact person for the SWMP. The SWMP must be immediately available to MDEP and EPA upon request. The permittee must also make the SWMP available to any member of the public who makes a request. The GP requires the permittee to post the SWMP online if a website is available for posting of documents under the control of the permittee, or make it available at a public location such as the library or town/city hall if the permittee does not have a website on which to make the SWMP available.

The MDEP and EPA believe that a written program provides a central, accessible source for all information relating to the SWMP. The SWMP required by this GP builds on the requirements of the MS4-2013 permit. While updating the SWMP required by this GP, the permittee must continue to implement the SWMP that was required by the MS4-2013 permit. Permittees covered by the MS4-2013 permit must update their SWMP and submit the updated SWMP as an attachment to the NOI.

The SWMP must document the actions the permittee has taken or will take to demonstrate compliance with the control measures and other conditions of the GP. The MDEP has determined that implementation of the conditions required by Part IV of this GP will meet the MEP standard of the CWA and will be protective of water quality.

1. Control Measures

Implementation of the SWMP involves the identification of BMPs to address the control measures and the identification of measurable goals for the BMP. The GP identifies the long-term objective of each control measure. The long-term objective of the control measure may not be completely met at the end of the term of the GP, but the permittee should be able to demonstrate progress towards the defined long-term objective. The permittee must implement the control measures described in the GP and document actions in the SWMP demonstrating progress towards achievement of the objective of the control measure. The permittee must identify interim goals as steps towards achievement of the long-term objective. This process represents the iterative nature of MEP.

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Goals identified as part of the SWMP must be measurable. A “measurable goal” is a goal for which progress can be tracked or measured. A well-defined goal will have an outcome associated with it. Goals can be expressed as short term, mid-range or long term. The permittee must evaluate the success of a goal. The permittee can evaluate the success of the goals using a variety of indicators including programmatic, social, physical, hydrological, or environmental changes.

Measurable goals may be expressed either quantitatively or qualitatively. The method used to assess whether a goal has been met should be measurable, reliable, relevant, and an actual measure of the outcome. There are various methods to measure outcome. These include confirmation or documentation that a task has been completed; tracking an absolute number or value of something; surveying to determine the knowledge or awareness of a group; inspections to make actual observations of an event; and monitoring to obtain an actual measurement of a pollutant in-stream or in an outfall, and using surrogates for pollutant removal. In some instances, the GP identifies specific measurement methodologies. In others, the permittee may select a method of evaluation that satisfies the discussions above.

In accordance with 40 CFR § 122.35, the GP allows an MS4 to rely on another entity for implementation of all or part of a permit condition or control measure. The permittee may rely on the other entity if the other entity is actually implementing the control measure or permit condition. The other entity must agree to implement the measure or condition for the MS4. This agreement must be included as part of the SWMP. If the other party fails to implement the measure or permit condition, the permittee is ultimately legally responsible for its implementation.

The intent of this provision is not that the other entity is provided more flexibility than the permittee. The permit is intended to allow flexibility to the permittee in the methodology it uses to implement some of the GP provisions. Many permit requirements are an “end point” and typically do not dictate the process to that end point. Different activities can accomplish the same task. For example, the permit requires an education program, but does not provide the methodology for putting the program together. Another entity could develop an education program which has the same elements of the GP and the permittee could rely on that other entity to comply with the terms of the GP. The permittee is expected to achieve the “end point” and this provision allows it to rely on another entity to accomplish the required measure. The permittee remains responsible for complying with the permit even if it shares, delegates, or otherwise arranges for another entity to perform some of the actions under the permit.

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2. Implementation of the SWMP includes:

- a. **MCM1 - A Public Education/Outreach Program:** The GP requires that the permittees implement a public education program to distribute educational materials to the populations within the MS4 or conduct other outreach activities about the impacts of stormwater discharges on water bodies within the MS4 jurisdiction and steps the public can take to reduce pollutants in stormwater runoff [See Part IV(C)(1) of the permit].

The permittee must at a minimum develop and implement an ongoing Education/Outreach Program addressing stormwater discharges and impacts on water bodies and steps that can be taken to reduce pollutants in stormwater runoff. The program must be designed to address stormwater issues of significance. The ultimate objective of the program is to change behavior of the target audiences so that pollutants in stormwater are reduced.

The education program must be specific to the MS4 and builds upon what was conducted as required by the MS4-2013 permit. The GP describes requirements that slightly increase the expectations and requirements for a permittee's public education program and attempts to provide more guidance on targets for the program, building upon what was conducted and reported as completed by permittees in the previous permit term. The overall long-term goal of an effective education program is to change an identified behavior and increase the knowledge of the community. The MDEP and EPA recognize that the goal may take more than one permit term to achieve.

The MDEP expects an education program to have a defined and targeted message for each of the different audiences and to include methods to evaluate effectiveness of the educational messages. Based on review of annual reports from the MS4-2013 permit, the MDEP found that some of the education programs developed by MS4s did not reflect these expectations. In order to achieve the objective of this measure, the GP includes detailed expectations for educating the public.

As stated previously, the GP defines target audiences and requires the permittee to provide educational materials to each. The GP includes topics for consideration for all audiences. The permittee may use those topics listed or may focus on other topics specific to the small MS4. Any method the permittee uses to measure the effectiveness of the education should be linked to the established measurable goals. Some examples include surveys to gauge changes in behavior or awareness. Quantifiable data such as the number of brochures distributed, the number of hits on a website, or the number of public attendees at MS4 sponsored events can be tracked. The permittee may identify a specific behavior the program is targeting and track metrics which show the adaptation of that behavior. The educational messages should reflect the needs and characteristics of the area served by the MS4. This may include distribution of materials in a language other than English, as appropriate. Permittees can form partnerships with other organizations to assist in the implementation of its education and outreach programs. These partnerships may include other MS4s in a watershed, environmental groups, watershed associations, or other civic organizations.

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The GP contains requirements to evaluate the effectiveness of the education program. When designing the education program, the municipality should determine evaluation techniques up front. For example, if a municipality wants to track the number of hits on the municipal website, the website should be designed with a tracking mechanism. Evaluations can focus on the process, the impact, or the content. Indicators such as administrative, social or environmental can also factor into the evaluation of program effectiveness.

Ideally, an MS4's public education program should include goals and objectives that are based on specific stormwater issues in the municipality or pollutants of concern within a waterbody. Each MS4 may select its own unique set of goals or objectives, but the ultimate outcome of the program is to elicit specific changes in behavior that in turn benefits water quality. The measurement of the effectiveness of the educational messages should be linked to the measurable goals established by the MS4. For example, a measurable goal may be to decrease the amount of trash in a local park by a certain percentage. The municipality installs more trash barrels and signs, establishes a clean-up day then monitors the results for a defined period of time. If the amount of trash decreases based on the efforts of the municipality, then the municipality could conclude that both the message and delivery of the message were effective.

Watershed and other environmental organizations, regional stormwater coalitions, and other municipalities may collaborate with permittees and many have materials for use in conducting outreach.

b. MCM2 - Public Involvement and Participation

This control measure is closely related to the public education and outreach control measure. When the public is given an opportunity to understand and participate in a stormwater protection program, the public generally will become supportive of the program. This measure is to provide and engage the public with opportunities to participate in the review and implementation of the SWMP. [See Part IV(C)(2) of the permit].

The objective of this minimum control measure is to involve the public in both the planning and implementation process of improving water quality and reducing storm water quantity via the storm water program. A program planned with a stakeholder group is more likely to be successful in achieving its goals. The public can provide valuable input and assistance to a MS4's municipal storm water management program. Therefore, the public should be given opportunities to play an active role in both the development and implementation of the program. An active and involved community is crucial to the success of a municipal storm water management program because it allows for broader public support, additional expertise and a conduit to other programs. Community members are also more likely to apply these lessons/BMPs at home.

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Permittees are encouraged to provide more interactive opportunities for public participation. Examples include volunteer water quality monitoring, community clean up days, hazardous waste collection days, and adopt a drain/adopt a stream programs.

The GP requires that the permittee annually provide an opportunity for the public to participate in the implementation of the SWMP. Participation efforts should attempt to engage all groups serviced by the MS4. This effort may include creative public information messages such as announcements in neighborhood newsletters, use of television spots on the local cable channel, or announcements or displays at civic meetings. One goal of public participation is to involve a diverse cross-section of people and businesses in the community to assist in development of a stormwater management program that meets the needs of the permittee and the community serviced by the MS4.

- c. **MCM-3 - Illicit Discharge Management:** The GP requires that the permittees prohibit the discharge of non-precipitation flows (“illicit” or “non-stormwater” flows) to the MS4s. Permittees must conduct aggressive, thorough, and systematic illicit discharge investigations and removal of illicit connections. The GP requires permittees to develop a written Illicit Discharge Detection and Elimination (IDDE) protocol that includes specific requirements and procedures for implementation of the IDDE program. Examples of these requirements are a detailed map, a written prioritization of areas with a potential of illicit discharges, dry weather outfall monitoring, wet weather assessment, record keeping, and thorough and complete storm drain network investigations that systematically and progressively evaluate manholes in the storm system to narrow the location of a suspected illicit connection or discharge to an isolated pipe segment (see Part IV(C)(3) of the permit).

Each permittee must implement and enforce a program to detect and eliminate illicit discharges and non-stormwater discharges, as defined in 06-096 CMR 521(9)(b)(2), except as provided for allowable non-stormwater discharges. The program must address illicit discharges in the following four components: 1) Procedures for prioritizing watersheds, 2) procedures for tracing the source of an illicit discharge, 3) procedures for removing the source of the discharges, and 4) procedures for program evaluation and assessment. The period between identification and elimination of an illicit discharge is not a grace period. Discharges from an MS4 that are mixed with an illicit discharge are not authorized by this GP and remain unlawful until eliminated.

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The MS4-2013 permit required each MS4 to develop and implement an IDDE program. Since issuance of that permit, the MDEP and MS4s have gained an improved and more comprehensive understanding of the nature of illicit discharge connections; the extent of the problem; effective technologies and procedures to detect and verify illicit connections; and the best practices to reduce discharges of contaminated stormwater due to the presence of illicit connections. In light of the demonstrated results and practical experience gained from these efforts, the GP requires more specific BMPs than the MS4-2013 permit. Examples of these requirements are a detailed map, a written prioritization of areas with a potential of illicit discharges, dry weather screening and monitoring, wet weather outfall assessments, record keeping, and thorough and complete storm drain network investigations that systematically and progressively evaluate manholes in the storm system to narrow the location of a suspected illicit connection or discharge to an isolated pipe segment.

This control measure requires the MS4 to detect and eliminate illicit discharges from its municipal separate storm sewer system. The regulations at 40 CFR §122.26(b)(2) define an illicit discharge as "...any discharge to a municipal separate storm sewer system that is not composed entirely of stormwater except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from firefighting activities." Some illicit discharges enter the storm system directly, such as incorrectly connected wastewater discharge lines, while others may enter indirectly, such as through infiltration from cracked sanitary lines or spills collected by drain outlets. Both types of discharges can contribute pollutants to the system that in turn affect water quality. An illicit discharge is, with limited exceptions, any discharge to a municipal separate storm sewer system that is not stormwater.

Consistent with 40 CFR § 122.34(b)(3)(iii), the GP contains a list of specific types of non-stormwater discharges that the permittee must address only if the permittee identifies such discharges as significant contributors of pollutants. MS4s should examine the potential sources as categories or individual discharges and examine the potential of those categories or individual discharges to contribute pollutants to the MS4.

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For example, potable water may not contribute pollutants that affect the MS4 discharges because the source is associated with the water supply. However, foundation drains and crawl spaces may be associated with residential basements and the type of pollutants may be unknown. In this situation, the MS4 may want to establish a registration program and incorporate an educational message about proper storage of household chemicals, or the permittee may prohibit this source of non-stormwater due to the unknown nature of the pollutants. The permittee must document its determinations on the categories of non-stormwater in its SWMP and must prohibit any sources identified as significant contributors of pollutants.

For all other non-stormwater discharges, the GP describes required components of an illicit discharge detection and elimination program.

The EPA and MDEP believe that the inclusion of elements in the permit as requirements instead of guidance represents a necessary step to strengthen requirements of the IDDE program and creates an aggressive, thorough, and systematic approach that can be implemented across the state that will lead to improvements to water quality. The EPA and MDEP feel that the level of effort described in Part IB(C)(3) of the GP is necessary and appropriate to ensure discharges from the MS4 are limited to the stormwater discharges authorized by this NPDES permit.

1. Written Illicit Discharge Detection and Elimination Program

The MS4 must have adequate legal authority to implement the following activities as part of the IDDE program: prohibit illicit discharges; investigate suspected illicit discharges; eliminate illicit discharges and enforce the IDDE program. The MS4-2013 permit required development of an ordinance or other regulatory mechanism to address the required program components. The MS4 must reference the authority to implement this measure in the IDDE program. The IDDE program is part of the overall SWMP.

The GP builds on the requirements of the MS4-2013 permit by detailing additional required components of an illicit discharge detection and elimination program. One component is a written protocol that clearly identifies responsibilities with regard to eliminating illicit connections. A second component is to maintain up-to-date maps of the municipally owned or operated storm sewer system. The final component is a written systematic protocol for locating and removing illicit connections.

The permittee must have in place a written protocol that clearly identifies methodologies and responsibilities with regard to detecting and eliminating illicit discharges. The protocol must identify who is responsible to pay for removal of an illicit connection/discharge. The permittee may incur the initial costs and seek partial or complete reimbursement from the owner of the illicit connection

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depending on the specifics of the situation and local and state law. The MDEP does not require a specific methodology, only that one exists and that the staff responsible for locating and removing illicit connections is familiar with it. The protocol must also define appropriate methods for removal of the illicit discharge or connection. The protocol must identify appropriate procedures or methodologies for confirmation of removal of illicit discharges or connections.

A storm drain network investigation involves systematically and progressively opening and inspecting key junction manholes in the system to narrow the location of an illicit discharge to an isolated pipe segment between two manholes. The permittee shall inspect key junction manholes for visual evidence of illicit connections or discharges (e.g. excrement, toilet paper, or sanitary products). When flow is observed in the manhole, the permittee may sample for ammonia and surfactants using field test kits if desired. Ammonia is a useful indicator of sewage. The concentration of ammonia is higher in sewage than in ground water or tap water. Surfactants are the active ingredient in most commercial detergents. Surfactants are typically measured as Methyl Blue Active Substances (MBAS). These are a synthetic replacement for soap. The presence of surfactants is an indicator of sewage and wash waters. There are other indicator parameters the permittee could use such as fluoride; municipalities typically add fluoride to drinking water supplies, and its presence is an indicator of tap water. Potassium is another indicator that has relatively high concentrations in sewage and the permittee may choose to sample for potassium but it is not required. When the concentration of potassium is evaluated in combination with the concentration of ammonia, the ratio of the two can help distinguish wash waters from sanitary wastes. In addition to the use of indicators to help identify the source of an illicit connection or discharge, the permittee may use dye testing, video testing, smoke testing or other appropriate methods to locate illicit connections or discharges.

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The GP requires the permittee to either remove or eliminate the illicit discharge or take appropriate enforcement action within sixty (60) days of detection. Where elimination of an illicit discharge within 60 calendar days of its identification and verification as an illicit discharge is not possible, the permittee must establish an expeditious schedule for its elimination and report the dates of identification and schedules for removal in the permittee's annual reports. The permittee must also track the progress of the IDDE program implementation. Appropriate tracking indicators are those that demonstrate elimination of a pollutant source and/or water quality improvements. For example, if a permittee has a beach that has closures due to bacteria, an appropriate indicator for tracking progress would be a decrease in the frequency of beach closures or water quality monitoring that indicates that the water is meeting standards.

Other examples include the number of reported illicit discharges, the number of illicit connections located, and the number of illicit connections repaired or removed and volume of illicit discharge removed.

In addition to detecting and removing illicit discharges, the permittee must also develop and implement mechanisms and procedures for preventing illicit discharges. This includes training to inform public employees, businesses, and the general public of the hazards associated with illegal discharges. The requirement to prevent illicit discharges can be incorporated into the public education and public participation control measures. Examples of mechanisms to prevent illicit discharges include identification of opportunities for pollution prevention or source control; distribution of information concerning car washing or swimming pool draining; routine maintenance activities; and inspections of facilities particularly municipal drains undergoing work by private parties.

2. Dry weather monitoring

This GP advances the dry weather outfall inspection program in the MS4-2013 permit by requiring permittees to conduct dry weather sampling for parameters depending on evidence observed during the inspections. Where dry weather flow exhibits evidence of an illicit discharge based on the dry weather inspection, the permittee must investigate the source of the illicit discharge using one or more of the following techniques until either a source is identified, or it has been determined that the evidence of the illicit discharge is due to naturally occurring source(s).

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Sampling and analysis for one or more parameters consistent with the source that is suspected based on the evidence observed including but not limited to:

- *E.coli*, enterococci, total fecal coliform or human bacteroides, ammonia, optical enhancers, or surfactants.
- Total residual chlorine or free chlorine.
- Optical enhancers or surfactants

All analyses can be performed with field test kits or field instrumentation and are not subject to 40 CFR Part 136 requirements given the sampling is for investigative purposes and not to determine compliance with this permit. Sampling for ammonia and surfactants must use sufficient sensitive methods to detect said parameters at or below the minimum reporting concentrations as follows: 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).

3. Wet weather assessment

The GP advances the IDDE program required by the 2013 MS4 permit by requiring the permittee to conduct a wet weather assessment of their collection system. The outcome of the assessment will be a list of outfalls identified for wet weather monitoring and testing if applicable by the permittee in the next permit cycle during wet weather conditions and the rationale for including these outfalls.

On or before the expiration date of this permit, the permittee must identify these wet weather outfalls in its written IDDE plan and identify the wet weather outfalls targeted 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.

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- d. **MCM4 - Construction Site Runoff Control:** The draft permit requires the permittees to implement a construction site runoff control program, which includes enacting and enforcing requirements for control of pollutants from construction sites, preconstruction plan review and approval, site inspections, and education for construction site operators. [See Part IV(C)(4) of the permit].

Each permittee must implement and enforce a program to minimize or eliminate pollutants in any stormwater runoff to the regulated small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of stormwater discharges from construction activity disturbing less than one acre must be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more.

MS4s are required to continue to review and enforce a program to reduce pollutants in stormwater runoff from construction activities that result in a land disturbance equal to or greater than one acre that discharge to the MS4. The overall objective of an effective construction runoff management program is to have a program that minimizes or eliminates erosion and maintains sediment on site.

The construction program required by the GP is different from the MDEP's program that is implemented through the Construction General Permit (CGP), although there is some overlap. The MS4 construction program must address the discharges from construction projects within its jurisdiction that discharge directly to the MS4. A project may need a CGP from the MDEP as well as be regulated under the permittee's construction program.

The permittee must have an ordinance or other regulatory mechanism requiring proper sediment and erosion control. In addition to addressing sediment and erosion control, the ordinance must include controls for other wastes on construction sites such as demolition debris, litter and sanitary wastes. The MDEP encourages permittees to include design standards in local regulations for sediment and erosion control BMPs. The GP cites two guidance documents entitled, *Erosion and Sediment Control, Housekeeping and Inspections and Maintenance* (Appendix C of the permit) and *Maine Erosion and Sediment Control Practices Field Guide For Contractors* (found on the MDEP website) to assist contractors and municipalities in developing BMPs for the ordinance or other regulatory mechanisms that could be included as part of the local program.

This GP requires the program to include written procedures for pre-construction review and approval of site plans. Permittees should make every effort to ensure that qualified personnel review plans. In addition, the program must include a procedure for receiving information from the public and taking such information into consideration during the site plan review. The plan review procedures must include consideration of water quality impacts. The MDEP believes the site plan review requirement is a necessary

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step to control the discharge from construction sites that enters the permittee's MS4 and ensures the construction site operators have taken the necessary steps to control stormwater generated on site before the stormwater is discharged to the MS4 system.

The GP requirements build upon the 2013 MS4 permit requirements by requiring the program to have procedures for site inspections and enforcement. Qualified personnel should perform inspections. Qualified personnel are those who possess the knowledge and the skills to assess conditions and activities that could impact stormwater quality and who can also evaluate the effectiveness of stormwater control measures. Inspections should occur during construction as well as after construction to ensure that BMPs are installed and operating as described in approved plans. The permittee shall have clearly defined procedures regarding who is responsible for inspections at construction sites and what aspects of the construction site are to be inspected. The permittee must have authority to impose sanctions if construction projects are found not to be in compliance with local ordinance. Sanctions can include monetary penalties, stop work orders, or other remedies authorized by law.

MS4s should review existing procedures in the community that apply to these activities (plan reviews and inspections). Often construction plans are seen by the planning board that may not have the technical expertise or engineering staff to evaluate them. A MS4 should look at the various components of the local government, and whenever possible, optimize coordination between municipal offices as appropriate to ensure adequate review of plans and other documents associated with a construction project. These measures are enhanced from the 2013 MS4 permit to provide a more thorough construction site stormwater management program. MS4 systems are responsible for the discharges they accept into their system and therefore, a thorough understanding and control of development projects that discharge to the permittee's MS4 is necessary to protect water quality.

e. **MCM5 - Storm Water Management for New Development and Redevelopment:**

This GP requires that permittees to promote strategies for stormwater runoff from areas of new development and redevelopment disturbing one (1) or more acres. One objective of this measure is to have the hydrology associated with new development closely mirror the pre-development hydrology and to improve the hydrology of redevelopment sites through required onsite retention/infiltration or treatment of stormwater. Another objective of this measure is to reduce the concentration and pollutant loadings found in stormwater prior to discharge of stormwater from new and re-development projects within the regulated area. Permittees must also conduct preconstruction plan review and approval for all new development and redevelopment projects; ensure proper operation and maintenance of permanent stormwater management controls; conduct site inspections; and enforce local requirements within their jurisdictional powers [See Part IV(C)(5) of the permit].

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Post construction stormwater runoff may cause two types of impacts. One is an increase in the type and the quantity of pollutants. The alteration of the land by development can increase the discharge of pollutants such as oil and grease (hydrocarbons), heavy metals, solids and nutrients. Another impact occurs with an increase in the quantity of stormwater that is delivered to water bodies during storm events. Increases in impervious area decrease the amount of precipitation that naturally infiltrates into the ground, which provides for natural filtration of many pollutants found in stormwater. The lack of natural infiltration increases the volume of stormwater runoff into water bodies which causes increased flows and increase in sediment loadings in the stream that can cause stream bank scouring, impacts to aquatic habitat, and flooding. The increased pollutant loading associated with increased impervious area will further degrade the receiving waterbodies if new and redevelopment is allowed to continue unmitigated. Planning and design for the minimization of pollutants in post construction stormwater discharges is the most cost-effective approach to stormwater quality management.

The GP contains Appendix C, *Erosion and Sediment Control, Housekeeping and Inspections and Maintenance*, as well as guidance entitled *Maine Erosion and Sediment Control Practices Field Guide For Contractors*, found on the MDEP website to assist contractors and municipalities in developing BMPs for the ordinance or other regulatory mechanism.

f. **MCM6 - Good Housekeeping/Operations and Maintenance Program for Municipal Operations:**

The objective of this program is to mitigate or eliminate pollutant runoff from municipal operations on property that is owned or managed by the permittee and located within the UA. Permittees must properly operate and maintain their stormwater infrastructure to reduce discharges of pollutants. All permittees must ensure that catch basins do not become more than 50% full and sweep their streets a minimum of one time per year. Permittees must maintain Operation and Maintenance (O&M) programs for all properties exposed to stormwater runoff and enact programs to reduce stormwater pollutants through appropriate application of pesticides, herbicides, and fertilizers in all permittee areas, as well as enacting pollution prevention actions at material storage facilities, maintenance yards, and salt storage sites. Additional measures are required at waste handling facilities to reduce pollutants associated with those facilities. (See Part IV(C)(6) of the permit).

The GP includes more detailed requirements than the MS4-2013 permit for the implementation of this control measure. The permittee must develop an inventory of municipal buildings and facilities and update it annually. Permittees are required to develop an operations and maintenance plan for the following permittee-owned activities or facilities: parks and open spaces; buildings and facilities; vehicles and equipment maintenance; and infrastructure (roadways and storm sewer systems). While the 2013

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GP did not require a written operation and maintenance plan for permittee-owned activities or facilities, it did require the development of a program to prevent/reduce pollutant runoff for the same activities or facilities identified above. Creating a written plan is intended to provide more clarity and responsibility for staff when dealing with stormwater runoff from permittee owned property. This GP is also more prescriptive of what certain operation and maintenance plans must contain based on the type of operation at the facility in order to be more protective of water quality than the MS4-2013 permit provisions.

The permittee must consider all buildings it owns for the evaluation of buildings and facilities. The permittee shall evaluate the use and storage of petroleum products, management of dumpsters, and other wastes at police and fire stations, schools, and other permittee owned buildings. In areas where permittee-owned vehicles are stored, the permittee must establish procedures to ensure that vehicles that are leaking or require maintenance are stored indoors to the extent practicable. Municipal fueling areas must be covered unless impracticable. Wash waters from permittee-owned vehicles must not be discharged to the MS4 or directly to a water of the state.

The GP requires the permittee to either establish or continue the implementation of a program to repair and rehabilitate its infrastructure in a timely manner. The GP requires the MS4 to maintain its streets, roads and rights of way in such manner as to minimize the discharge of pollutants from the MS4. Permittee's must develop and implement a program to inspect all catch basins and, if necessary, at least once every other year, clean catch basins and other stormwater structures that accumulate sediment and dispose of the removed sediments in accordance with current state law. The permittee must clean catch basins more frequently if inspections indicate excessive accumulation of sediment. Excessive accumulation is greater than or equal to 50 percent of the sump filled.

The GP requires street sweeping to occur at least once per year. More frequent sweeping, especially using a high efficiency vacuum sweeper, can have positive impacts on receiving water quality and many permittees may choose increased sweeping frequencies in heavy use areas.

In addition to the operation and maintenance plans required for permittee-owned operations, the permittee must develop a Stormwater Pollution Prevention Plan (SWPPP) for municipal maintenance garages, public works facilities, transfer stations, or other waste management facilities. Waste management facilities are those facilities that accept or store material accepted from public or private entities, including recycling facilities, compost areas, organic debris collection, hazardous waste collection areas, etc. These facilities are targeted in this GP because they can be large generators of stormwater pollution and may not be covered under another MEPDES permit. However, if a facility is already covered by Maine's Multi-Sector General Permit (MSGP), the SWPPP required by the MSGP will satisfy this requirement. The SWPPP required by the MSGP shall be referenced in the MS4's SWMP.

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The permittee must develop a SWPPP that consists of the following elements;

1. The SWPPP must identify the individuals (by name or title) who comprise the facility's Stormwater Pollution Prevention Team. The Stormwater Pollution Prevention Team is responsible for assisting the facility manager in developing, implementing, maintaining and revising the facility's SWPPP. Responsibilities of each team member must be listed.
2. Nature of activities. The SWPPP must provide a description of the nature of the activities at the facility.
3. Maps. The SWPPP must contain a general location map with sufficient detail to identify the location of the facility and all receiving waters for all stormwater discharges. A site map depicting the following features must also be included with the SWPPP.
 - i. Boundaries of the property and the size of the property in acres;
 - ii. Location and extent of significant structures and impervious surfaces;
 - iii. Directions of stormwater flow (use arrows);
 - iv. Locations of all stormwater BMPs;
 - v. Locations of all receiving waters, including wetlands, in the immediate vicinity of the facility;
 - vi. Locations of all stormwater conveyances including catch basins, ditches, pipes, and swales;
 - vii. Locations of potential pollutant sources;
 - viii. The location of all above ground wastewater or process water containment tanks;
 - ix. For the purposes of the site map, identify areas of frequent spills (greater than three occurrences per year) and large spills (greater than 10 gallons) that have occurred in the last three years. All locations of fuel frequent/large spills must be documented within the SWPPP or applicable Spill Prevention Control & Counter Measure (SPCC) Plan;

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- x. Locations of all stormwater monitoring points;
- xi. Locations of stormwater inlets, outlets, and outfalls, with a unique identification code for each outfall (*e.g.*, Outfall 001, 002) and an approximate outline of the areas draining to each outfall;
- xii. Locations of the following activities where such activities are exposed to precipitation:
 - fueling stations;
 - vehicle and equipment maintenance and/or cleaning areas;
 - loading/unloading areas;
 - locations used for the treatment, storage, or disposal of wastes;
 - liquid storage tanks;
 - processing and storage areas;
 - immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility;
 - transfer areas for substances in bulk;
 - machinery; and
 - locations and sources of run-on to the site from adjacent property that contains significant quantities of pollutants.

The permittee must have a signed copy of the SWMP available-at the municipal office and on the official municipal web site if there is a municipal website and must make a copy of the SWMP available to the general public and regulatory authorities. The permittee must keep the SWMP current. The permittee must allow the public the opportunity to comment on changes made to the SWMP at a minimum of once per year (1/Year). If there are no changes to the SWMP no opportunity for public comment is necessary. Posting the SWMP on the municipal website or at the municipal office for comment at any time is acceptable to meet the once per year (1/Year) requirement. The municipality does not need to publish a notice in a local newspaper to fulfill this requirement.

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D. Impaired Waters & Total Maximum Daily Loads

The EPA has approved a number of Impervious Cover (IC) TMDLs in Maine in which waste load allocations (WLAs) have been developed. If the waterbody to which a point source discharge drains is impaired and has an EPA approved TMDL, then the point source discharge must be consistent with the TMDL WLA and any implementation plan. This GP does not authorize a direct discharge that is inconsistent with the WLA of an approved TMDL.

This GP is utilizing the adaptive management approach to address waterbody impairments. Appendix B of the GP contains a list of Urban Impaired Streams (UISs). This GP requires the permittee to fully implement at least three structural or non-structural BMPs to address the impairment. These proposed BMPs and other BMPs will be established in the final permittee specific MDEP Order.

For point source discharges to impaired waterbodies without an approved TMDL, the permittee must consult with the Department's Division of Environmental Assessment to identify the root cause(s) of the impairment and develop a strategy reduce the discharge of pollutants of concern if the permittee is causing or contributing to the impairment.

E. Record Keeping and Annual Reporting

1. Record Keeping

The permittee must keep all records required by this permit for a period of five years from the date the record is generated. The SWMP must be available to members of the public who request a copy.

2. Annual Compliance Reporting

The permittee must submit an annual report by September 15th of each calendar year. The reporting period will be a one-year period commencing on the permit effective date, and subsequent anniversaries thereof. The report must include a self-assessment regarding compliance with the terms of the GP, the appropriateness of selected BMPs, and the progress towards achieving the permittee identified measurable goals. The report must also contain a summary of any information that has been collected and analyzed. This includes all data. The permittee must also indicate what activities are planned for the next reporting cycle and discuss any changes to either BMPs or measurable goals. The report must indicate if any control measure or measurable goal is the responsibility of another entity. [See Part IV(G) of the GP]

PART III - DEPARTMENT CONTACTS

Additional information concerning this permitting action may be obtained from, and written comments sent to:

Gregg Wood
Division of Water Quality Management
Bureau of Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017
e-mail: gregg.wood@maine.gov
Telephone: (207) 287-7693

PART IV - RESPONSE TO COMMENTS

During the period December 9, 2019 – January 9, 2020, the MDEP made the draft MS4 permit available for a formal 30-day public comment period, consistent with the MEPDES rules. The MDEP received comments from the following entities:

U.S. Environmental Protection Agency (USEPA)
Maine Municipal Association (MMA)
Conservation Law Foundation (CLF)
Interlocal Stormwater Working Group (ISWG)
Southern Maine Stormwater Working Group (SMSWG)
Maine Turnpike Authority (MTA)
CES Inc. (CES)
Friends of Casco Bay Baykeeper (FOCB)
Casco Bay Estuary Partnership (CEBP)
City of Lewiston (Lewiston)

The MDEP provides the following responses to substantive comments received.

Comment #1 (USEPA): Language throughout the draft permit must be revised to comply with 40 C.F.R §122.28(d)(2) and should include an explanation of the process MDEP will take to complete the two-step process.

Response #1: Special Condition Part II (A) of the final permit has been rewritten to include an explanation of the process MDEP will take to complete the two-step process.

Comment #2 (USEPA): Deadlines are missing for many of the plans (e.g. O&M plans, SWPPPs) and MDEP should add deadlines for completion for any plans or programs required by the GP.

Response #2: The final permit has been modified to require completion of the SWMP by the date of submission of the NOI for permit coverage and the O&M plan and SWPPP are to be completed/updated prior to the effective date of the permit.

PART IV - RESPONSE TO COMMENTS

Comment #3 (USEPA): The two-step process explained on page 6 of the Fact Sheet is not consistent with the two-step process approach which requires MDEP to post additional individualized permit requirements for each applicant consistent with 40 C.F.R. §122.28(d)(2).

Response #3: Page 6 of the Fact Sheet has been revised to clarify that in addition to the NOI being subject to a 30-day public comment period, the MDEP will be required to issue a draft permittee specific MDEP Order for a 30-day public comment period that establishes a list of required actions and corresponding schedules of compliance for a limited number of BMPs associated with the implementation of the GP. Following the 30-day comment period, the MDEP will issue a final permittee specific MDEP Order. A MS4 is not authorized to discharge until a final permittee specific MDEP Order is issued granting authorization to discharge.

Comment #4 (USEPA): Part IV(C)(3) MCM3– Illicit Discharge Detection and Elimination (IDDE) Program – The permit should require that every outfall exhibiting dry weather flow be sampled in order to fulfill the requirement of CWA 402(p)(3)(B)(ii).

Response #4: Part IV(C)(3)(iv) of the final permit has been revised accordingly.

Comment #5 (USEPA) – Part IV(C)(5) MCM5 – Post Construction Stormwater Management in Development and Redevelopment – This part must be revised as it does not contain clear, specific and measurable requirements of 40 C.F.R. §122.28 and 40 C.F.R. §122.34 or alternatively, the two-step process could be used to require the permittee to submit how they plan to regulate new development and redevelopment in the urbanized area and create clear, specific and measurable requirements in the two-step process.

Response #5 – The MDEP will review the SWMP upon submission and will utilize the permittee specific MDEP Order to establish clear, specific and measurable goals to regulate new development and redevelopment in the urbanized area.

Comment #6 (ISWG, SMSWG, MMA) – All three parties object to following paragraph on the bottom of page 27 of the December 6, 2019 draft Fact Sheet:

For point source discharges to impaired waterbodies without an approved TMDL, the permittee must consult with the Department’s Division of Environmental Assessment to identify the root cause(s) of the impairment and develop a strategy reduce the discharge of pollutants of concern if the permittee is causing or contributing to the impairment.

MMA s objects to the statement stating “ By directing the MS4s to consult with the Department, these municipalities are now obligated to participate in identification of the root causes.” “Permittee’s are not responsible to address-let alone identify-root impairments on waters that do not carry an approved EPA TMDL.” “Municipal officials are not environmental specialists and do not have a staff of scientists available to conduct these activities, nor should they be required to invest in such staffing simple because they require a stormwater permit. Additionally, determining TMDL is the role of the Department as directed by federal regulation and should be addressed from a whole systems view and not a municipal boundary view.”

PART IV - RESPONSE TO COMMENTS

Response #6 – 06-096 CMR Chapter 2, *Rules Concerning The Processing of Applications And Other Administrative Matters* (June 9, 2018) Section 11(F) *Burden of Proof and Governing Laws* states that “An applicant for a license has the burden of proof to affirmatively demonstrate to the Department that each of the licensing criteria in statute or rule has been met.”

Maine law, 38 M.R.S. §414-A(1), *Conditions of Licenses*, states “The Department shall issue a license for the discharge of pollutants only if it finds that,”

- A. The discharge either by itself or in combination with other discharges will not lower the quality of any classified body of water below such classification.

The Department disagrees with MMAs position that it is not the permittee’s responsibility to address let alone identify-root impairments on waters that do not carry an approved EPA TMDL. This statement in the Fact Sheet does not require permittees to develop TMDLs for any impaired waterbodies. The Department agrees with the commenters statements that preparing TMDLs for approval by EPA is the Department’s responsibility. However, permittees are responsible for affirmatively demonstrating their discharge is not causing or contributing to the impairment. By consulting with the Department on the severity of the impairment and the potential root cause(s), the Department and the permittees can work collaboratively to address the impairment and assist the permittee in demonstrating whether it is causing or contributing to the impairment.

It was agreed during the stakeholder process that working to address the impairments in the Urban Impaired Streams listed in Appendix B of the permit would be the priority for this five-year permit but that impaired waterbodies not in Appendix B still need to be addressed. Consultation with the Department would be the first step in addressing the impairments.

Comment #7 (ISWG, SMSWG) – The commenters have asked for clarification if the secondary containment requirements in Part IV(3)(e)(iv) are applicable to storage tanks for deicing fluids such magnesium chloride since these tanks do not have federal or state requirements for secondary containment.

Response #7 – The Department agrees there are no federal or state requirements for these types of storage tanks. Therefore, the first sentence of the above referenced section of the final permit has been revised to read as follows:

Any stationary above ground tank, container, or container storage area used for the storage of wastewater or process water (does not include deicing materials for winter road maintenance) that has the potential to discharge to surface waters or a stormwater conveyance during a malfunction must be held in a secondary containment device capable of containing 100% of the contents of the tank, plus precipitation.

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Comment #8 (CES) – The commenter requests that the language in MCM Part IV(B)(3)(f) of the permit stating that permittees must update their written IDDE plan during the term of this permit to identify protocols, timing and frequency of wet weather monitoring to be completed during the next permit cycle be removed from the permit. The remainder of the permit requirements are related to activities completed within the terms of this permit and we feel it is inappropriate for permittees to identify how they will comply with future permits as a prerequisite for compliance with this permit.

Response #8 – During the stakeholder process, FOCB advocated for MS4 permittees to be required to conduct wet weather monitoring in this permit. The USEPA supported FOCB's position. The MS4 permittees acknowledge that federal regulations require each renewal of the MS4 permit advance the requirements of the previous permit. Permittees argued that conducting wet weather monitoring on top of the other new requirements in this permit renewal would not be doable from a planning or financial standpoint but they would be willing to begin the process of developing a wet weather monitoring program. Stakeholders agreed that advancing wet weather requirements could be started during the term of this permit by requiring the permittees to conduct a wet weather assessment for the potential for illicit discharges during wet weather events. The permit requires that if the wet weather assessment is completed during the term of the permit, wet weather monitoring shall be carried out accordingly and not wait until the issuance of the permit renewal in calendar year 2027. This compromise was acceptable to both the FOCB and the USEPA. Therefore, the final permit remains as drafted.

Comment #9 (MMA): The commenters objected to the following statement in paragraph #2 on page 18 of the Fact Sheet under the heading of Written Illicit Discharge Detection and Elimination Program. *“A second component is an assessment and ranking of the catchments within the MS4 for their potential to have illicit discharges.”* The commenter states this sentence on prioritizing catchments is inconsistent with the requires in paragraph #1 on page 25 of the GP under the heading of MCM3 - Illicit Discharge Detection and Elimination Program, that states in part. *“The program must address illicit discharges in the following four components: 1) Procedures for prioritizing waters,.....”*

Response #9 – The Department agrees with the commenter and the sentence on page 18 of the final Fact Sheet referencing catchments has been deleted.

Comment #10 (MMA) – The commenter objected to the following statement in paragraph #3 on page 20 of the Fact Sheet under Written Illicit Discharge Detection and Elimination Program. *“In addition to detecting and removing illicit discharges, the permittee must also develop and implement mechanisms and procedures for preventing illicit discharges. This includes training to inform public employees, businesses, and the general public of the hazards associated with illegal discharges.”* The commenter states that training of this nature is beyond the maximum extent practicable, not a permit requirement, and clearly the responsibility of the permit authority (MDEP) not the permittee. The Department needs to invest more of its own resources in robust and uniform statewide training for contractors, employees and the general public as these illicit discharges can occur unchecked in communities without a permit requirement. This is a statewide water quality need, not just a regulated community concern.

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Response #10 – The Department agrees with commenter that this training is not a permit requirement in MCM3 Illicit Discharge Detection and Elimination Program, beginning on page 25 of the permit. However, the rest of the paragraph #3 on page 20 of the Fact Sheet reads as follows;

“The requirement to prevent illicit discharges can be incorporated into the public education and public participation control measures. Examples of mechanisms to prevent illicit discharges include identification of opportunities for pollution prevention or source control; distribution of information concerning car washing or swimming pool draining; routine maintenance activities; and inspections of facilities particularly municipal drains undergoing work by private parties.”

The language of the Fact Sheet was simply pointing out that there are opportunities for the permittee to get the message out to members of their community and employees of the MS4 via public informational flyers, formal training, etc.

Comment #11 (Lewiston) – The commenter is concerned the last paragraph on Part IV(B)(3)(f) under the heading MCM3 Illicit Discharge Detection and Elimination Program, on page 29 of the permit, appears to indicate that the EPA New England bacterial tracking source is the primary means of detecting illicit discharges. The commenter states there are other methods and protocols such as sandbagging, smoke testing, dye testing, CCTV/video inspections, optical brightener monitoring and IDDE canines are also tools that can be utilized as well to detect illicit discharges. The GP should not tie the permittees to a limited methodology in this complex and important task of identifying and eliminating illicit discharges.

Response #11 – The Department agrees with the commenter. The paragraph in the draft permit cited by the commenter states in part,

“On or before the expiration date of this GP, the permittee must identify these wet weather outfalls in its written IDDE plan and identify the wet weather outfalls targeted for wet weather monitoring based on the EPA New England bacterial source tracking protocol or other acceptable protocol and specify the timing and frequency of wet weather monitoring to be completed during the term of the next permit cycle.”

To address the commenter’s concern the final permit has been revised to include the word methodologies as well and reads as follows:

On or before the expiration date of this GP, the permittee must identify these wet weather outfalls in its written IDDE plan and identify the wet weather outfalls targeted 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.

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Comment #12 (MTA) – The commenter questions if all stormwater direct discharges to wetlands that are not surface waters (*i.e.* streams, rivers, brooks, ponds, lakes or other waters) are considered “outfalls” under this GP? In addition, the commenter questions if outlets from post-construction stormwater BMPs such as detention/retention BMPs, vegetative BMPs, infiltration BMPs, and underdrained soil filters that have provided treatment to stormwater runoff are still considered ‘outfalls’ or ‘direct discharges’ that are regulated under the MS4 GP?

Response #12 – Any direct discharge to a surface water, including wetlands, is considered an outfall under this GP even if it is treated through a BMP before discharge. Discharges that are directed to infiltration galleries or other subsurface BMPs and do not discharge to surface waters are not considered outfalls under this GP.

Comment #13 (FOCB) – The FOCB states chlorides are a major source of pollutants to urban streams. MCM 6 should require that regulated communities establish and implement procedures for winter road maintenance that minimize the use of sodium chloride and other salts, evaluate opportunities for use of alternative materials, and ensure that snow disposal activities do not result in disposal of snow into waters of the United States.

Response #13 – The Department concurs that chlorides are a major source of pollution as evidenced in the Long Creek watershed in Southern Maine. MCM6, Part IV(6)(d)(2)(b)(5) on page 37 of the final permit has been revised as follows:

- v. Site and operate snow storage and disposal areas to prevent the discharge of snow directly into surface waters and minimize discharges of pollutants from snow maintenance activities. Permittees shall minimize the use of sodium chloride or other salts when possible and evaluate opportunities for use of alternative products.

Comment #14 (FOCB) – The FOCB suggests the Part I(D), *Obtaining Coverage to Discharge*, on page 5 of the December 6, 2019 Fact Sheet should more clearly state in the first paragraph that authorization to discharge is a two-step process under this permit cycle, and that the general permit in conjunction in the individual permit modification authorizes the discharge of stormwater from a regulated MS4.

Response #14 – The Department agrees the paragraph should clarify that authorization to discharge will only be granted after both the GP and permittee specific MDEP Order are both issued as final agency actions. Therefore, paragraph #2 in Part I(B), *Permit Coverage*, of the final permit and paragraph #2 in Part I(D)(1), *Effective Date of this General Permit*, on page 6 of the Fact Sheet have both been modified to include the following sentence.

An applicant is authorized to discharge when the GP becomes effective and the applicable permittee specific DEP Order establishing a list of required actions and a corresponding schedule of compliance for the action items is issued as a final agency action.

Comment #15 (ISWG, SMSWG) – The commenter wanted clarification regarding language in Part IV(B)(2), *Keeping Plans Current*, on page 21 of the permit. The commenter requested language be incorporated into the Fact Sheet indicating that placing the SWMP on the permittee’s website giving the public the opportunity to comment on the SWMP at any time satisfies the requirement to allow the public to comment on the SWMP at least 1/Year and that annually publishing a public notice in the newspaper is not required given the plan is available on the permittee’s website.

Response #15: The Department agrees a clarification is necessary. The following paragraph has been added to page 27 of the Fact Sheet:

The permittee must have a signed copy of the SWMP available-at the municipal office and on the official municipal web site if there is a municipal website and must make a copy of the SWMP available to the general public and regulatory authorities. The permittee must keep the SWMP current. The permittee must allow the public the opportunity to comment on changes made to the SWMP at a minimum of once per year (1/Year). If there are no changes to the SWMP no opportunity for public comment is necessary. Posting the SWMP on the municipal website or at the municipal office for comment at any time is acceptable to meet the once per year (1/Year) requirement. The municipality does not need to publish a notice in a local newspaper to fulfill this requirement.



APPENDIX D

STORMWATER AWARENESS PLAN

Stormwater Awareness Plan

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 Stormwater Awareness Plan¹ describes the reasoning and measurable goals for the public audience.

Background: 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 Interlocal Stormwater Working Group (ISWG), Androscoggin Valley Stormwater Working Group (AVSWG)², and Southern Maine Stormwater Working Group (SMSWG) coordinate their Think Blue Maine messaging and education efforts to provide 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% of ISWG respondents ages 25 to 34 believe that stormwater runoff has a major impact or somewhat impacts water quality, but only 46% 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 – The City of Lewiston, through its partnership with the ISWG, will raise 15%³ of the target audience's awareness of what happens to stormwater at their residence or place of work.

Target Audience: People 25 to 34 in the AVSWG 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.

¹ This Stormwater Awareness Plan is presented here as an excerpt of the Interlocal Stormwater Working Group’s (ISWG) Stormwater Management Plan (SWMP). Edits to this portion of the SWMP have been made by the City of Lewiston to reflect applicable requirements of measurable goal 1.1a of the ISWG SWMP and to update references for applicability to the AVSWG region but are not intended to change the intent or goals of the ISWG awareness plan.

² AVSWG consists of the City of Lewiston, City of Auburn, Town of Sabattus, and Town of Lisbon.

³ 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.

Outreach Tools: A minimum of three outreach tools will be selected from Table 1 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.

Table 1 below includes a list of outreach tools with their corresponding minimum level of effort and effectiveness benchmark that will be selected from each year.

**TABLE 1
Education & Outreach Tools, Levels of Effort, and Effectiveness Benchmarks**

Outreach Tool	Minimum Level of Effort	Effectiveness Benchmark
Poster	10 posters/municipality	Total number of posters distributed
Flyer	1 flyer	Total number of flyers distributed
Brochure	1 brochure	Total number of brochures distributed
Rack Card	1 rack card	Total number of rack cards distributed
Newsletter Article	2 newsletter articles	Total number of newsletters distributed
Post Card	1 post card	Total number of postcards distributed
Factsheet	1 factsheet	Total number of factsheets distributed
Sign	5 signs/municipality	Total number of signs distributed
Story Walk	1 story walk	Number of QR code (or similar technology) scans from signs
Story Map	1 regional story map	Number of visitors to webpage
Stormwater Geocaching	1 regional activity (14 sites)	Number of participants per site
Augmented Reality App	1 regional activity (14 sites)	Number of app downloads Number of engagements within the app
Municipal Electronic 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)
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.)

separate tool)		
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)
Radio Ad	1 radio ad	Number of people reached with ad
Radio Segment	1 radio segment	Number of people reached with segment
Television Ad (broadcast or streaming)	1 television ad	Number of people reached with ad
Television News Segment (broadcast or streaming)	1 television news segment	Number of people reached with segment
Newspaper Article	1 newspaper article	Number of people reached with article
Newspaper Ad	1 newspaper ad	Number of people reached with ad
Webinar/Workshop	7 hours of training offered (multiple webinars/workshops may be offered to reach 7 hours)	Number of workshop attendees
Social Gathering	3 events	Number of interactions
Tabling	3 events	Number of interactions
Outreach partnership with local retailer	50% of industry retailers in region participating	Number of local retailers participating
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
A DEP-approved tool	Minimum level of effort will be determined based on the tool	Effectiveness benchmark will be determined based on the tool

Implementation schedule: A minimum of three of the tools from Table 1 will be implemented each year for the duration of the permit.

Evaluation: Effectiveness will be evaluated annually by tracking process indicators⁴ for each tool implemented that year and by tracking impact indicators⁵ where available (see Table 1).

Effectiveness Evaluation: The City of Lewiston, 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.

⁴ Indicators related to the execution of the outreach program.

⁵ Indicators related to the achievement of the goals or objectives of the program.

In Permit Year 5 of the 2022 MS4 General Permit the City of Lewiston, through its partnership with ISWG, will conduct an evaluation of the overall effectiveness of this Stormwater Awareness Plan. The evaluation will be a review of the annually reported benchmark values for the Stormwater Awareness Plan as well as documentation of overall changes during the permit term. The evaluation will identify recommendations for future awareness target audiences, messages, tools, and benchmarks. A comprehensive survey will be conducted for the AVSWG region to evaluate the impact of the awareness campaign.



APPENDIX E

MUNICIPAL CHLORIDE AWARENESS PLAN



**City of Lewiston
Municipal Chloride Awareness Plan**

Responsible Party: John Kuchinski, Project Engineer

Objective: As a result of the implementation of the Municipal Chloride Awareness Plan, at the end of the permit cycle, at least 50% of Public Works leadership and staff will demonstrate increased awareness of the outreach goals. Public Works leadership and staff targeted by this awareness plan include those that are relevant to the City Snow and Ice Control Plan.

TARGET AUDIENCE	OUTREACH TOOL(S) TO BE USED ¹	MESSAGE	BEST MANAGEMENT PRACTICES TO BE ADDRESSED ²	OUTREACH GOAL
Public Works Leadership and Staff	1) Staff to attend a training provided by the Maine Local Roads (or other applicable winter maintenance training) 2) Prepare and provide annual winter operations training. 3) Make Snow and Ice Control Plan available on the City webpage.	1) The application of winter sand and salt can negatively impact waterways, infrastructure and drinking water supplies. 2) The use of Best Management Practices (BMPs) will reduce these impacts, save money, and preserve infrastructure.	1) Pre-treating roads with dry or wetted rock salt to reduce the amount of salt necessary. 2) Pre-wet road salt to increase effectiveness and reduce amount required to be applied. 3) Annually calibrate ground speed control material spreaders on crew chief vehicles and plow trucks, where available, to ensure that the minimal amount of material is applied, while still being effective. 4) Annually calibrate and utilize ground temperature sensors on crew chief vehicles and plow trucks, where available. ³	For staff to understand winter snow operations best management practices and available tools.

¹ The City will annually use at least three of the outreach tools identified to implement the Municipal Chloride Awareness Plan.

² The City of Lewiston BMP Implementation Schedule maintained by the City identifies other Best Management Practices that may also be addressed, as determined appropriate by the City. That document was developed using the Maine Environmental Best Management Practices Manual for Snow and Ice Control (Version 1.0).

³ New trucks are equipped with temperature sensors. Additional deployment may be phased in, as equipment is added or replaced.



**City of Lewiston
Municipal Chloride Awareness Plan, Implementation and Evaluation Protocol**

Responsible Party: John Kuchinski, City Project Engineer

IMPLEMENTATION AND EVALUATION SCHEDULE					
Outreach Tool/ BMP	Permit Year 1	Permit Year 2	Permit Year 3	Permit Year 4	Permit Year 5
Public Works Department leadership and staff attendance at winter maintenance training.	1) Prior to training, meet with leadership and staff and implement baseline evaluation. ¹ 2) Implement training.	Implement training.	Implement training.	Implement training.	1) Implement training. 2) After training, meet with leadership and staff and implement evaluation.
Public Works Department leadership and staff attendance at annual winter operations meeting.	1) Prior to meeting, meet with leadership and staff and implement baseline evaluation. ¹ 2) Implement meeting.	Implement meeting.	Implement meeting.	Implement meeting.	1) Implement meeting. 2) After meeting, meet with leadership and staff and implement evaluation.
Make Snow and Ice Control Plan available on the City webpage.	1) Implement evaluation. ¹ 2) Make Snow and Ice Control Plan available on City webpage.	Maintain Plan on City webpage.	Maintain Plan on City webpage.	Maintain Plan on City webpage.	1) Maintain Snow and Ice Control Plan available on City webpage. 2) Implement evaluation.

¹ The baseline and final evaluations for each target group must only be implemented once.

² Refer to Attachment 1 for a template Municipal Chloride Awareness baseline and final evaluation questionnaire.



Attachment 1

**City of Lewiston
Municipal Chloride Awareness Questionnaire Template**



City of Lewiston

Municipal Chloride Awareness Questionnaire Template*

Department: _____

Date: _____

Question: How does the application of winter sand and salt impact the quality of water in adjacent waterbodies, drinking water supplies, and infrastructure?

Question: What Best Management Practices does the City implement to reduce the impacts associated with the use of winter sand and salt?

* Actual awareness questionnaire content to be determined.



APPENDIX F

YARDSCAPING BEHAVIOR CHANGE PLAN



**City of Lewiston
Yardscaping Behavior Change Plan**

Responsible Party: John Kuchinski, City Project Engineer

Objective: As a result of the implementation of the Yardscaping Behavior Change Plan, at the end of the permit cycle, at least 50% of Parks and Recreation (Division of Department of Public Works) staff and 10% of targeted homeowners will report a change in behavior that reduces fertilizer, herbicide, pesticide, and/or landscaping water use.

TARGET AUDIENCE	OUTREACH TOOL(S) TO BE USED ¹	MESSAGE	BEST MANAGEMENT PRACTICES TO BE ADDRESSED	OUTREACH GOAL
<p>1) Parks and Recreation Division of the Department of Public Works</p> <p>2) Homeowners within the City between the ages of 35 and 55.</p>	<p>1) Conduct storm drain stenciling projects. This will be coordinated by the City of Lewiston and/or with AVSWG (<i>Target Audiences: Parks and Recreation Division; Homeowners</i>).</p> <p>2) Accompany storm drain stenciling projects with direct mailings or door hanger distribution within target audiences to convey educational information and resources (<i>Target Audience: Homeowners</i>).</p> <p>3a) Posters will be hung in City municipal offices, libraries, and/or other public spaces (<i>Target Audience: Homeowners</i>).</p> <p>3b) Posters will be hung in Parks and Recreation Division office and work spaces (<i>Target Audience: Parks and Recreation Division</i>).</p> <p>4) Conduct a municipal training event (<i>Target Audiences: Parks and Recreation Division</i>).</p>	<p>Protect the health and safety of our children, pets, and water by reducing the use of fertilizer and weed and bug killers on your lawn. Instead, mow high and let the clippings lie.</p>	<p>1) Reduce and/or eliminate the use of fertilizer. Let clippings lie, test soil, and time fertilizer applications.</p> <p>2) Reduce herbicide use. Annually aerate, power rake, and overseed to reduce weeds.</p> <p>3) Reduce pesticide use. Use State of Maine "Got Pests?" webpage for alternative management of pests.</p> <p>4) Water wisely. Mow high and time watering to align with need and to minimize evaporation.</p>	<p>For target audiences to indicate reduced use of fertilizer, herbicides, pesticides, and/or water.</p>

¹ Media coverage will be coordinated for outreach tools, as appropriate, to broaden the distribution of the message.



**City of Lewiston
Yardscaping Behavior Change, Plan, Implementation and Evaluation Protocol**

Responsible Party: John Kuchinski, City Project Engineer

IMPLEMENTATION AND EVALUATION SCHEDULE					
Tool	Permit Year 1	Permit Year 2	Permit Year 3	Permit Year 4	Permit Year 5
Storm drain stenciling projects	1) Utilize results of previously conducted yardscaping evaluation(s) as public baseline. Administer survey to municipal target audience. 2) Implement stenciling event.	Implement stenciling event.	Implement stenciling event.	Implement stenciling event.	1) Implement stenciling event. 2) After stenciling event, evaluate behavior change in target audiences by administering survey.
Direct mailings/ door hangers	1) Utilize results of previously conducted yardscaping evaluation(s) as public baseline. 2) Distribute direct mailings/door hangers.	Distribute direct mailings/door hangers.	Distribute direct mailings/door hangers.	Distribute direct mailings/door hangers.	1) Distribute direct mailings/door hangers. 2) After distribution, evaluate behavior change in target audience by administering survey.
Posters	1) Utilize results of previously conducted yardscaping evaluation(s) as public baseline. Administer survey to municipal target audience. 2) Distribute/hang posters.	Distribute/hang posters.	Distribute/hang posters.	Distribute/hang posters.	1) Distribute/hang posters. 2) After distribution, evaluate behavior change in target audiences by administering survey.
Training Event	1) Administer survey to municipal target audience. 2) Implement training event.	Implement training event.	Implement training event.	Implement training event.	1) Implement training event. 2) After training event, evaluate behavior change in target audience by administering survey.

¹ The baseline and final evaluations for each target group, as applicable, must only be implemented once.

² Refer to Attachment 1 for a sample Yardscaping Behavior Change Plan baseline and final evaluation questionnaire.



City of Lewiston

Sample Behavior Change Questionnaire*

Department: _____

Date: _____

Question: What Yardscaping outreach activities did you participate in, receive, or see (i.e., catch basin stenciling, mailings, door hangers, posters, and/or trainings)

Question: Did participation in the Yardscaping outreach activity change the way that you fertilize your yard and/or the amount of fertilizer that you use in your yard? If so, how and/or by how much?

Question: Did participation in the Yardscaping outreach activity change the way that you use herbicides in your yard and/or the amount of herbicide that you use in your yard? If so, how and/or by how much?



Question: Did participation in the Yardscaping outreach activity change the way that you use pesticides in your yard and/or the amount of pesticide that you use in your yard? If so, how and/or by how much?

Question: Did participation in the Yardscaping outreach activity change the way that you water your yard and/or the amount of water you use in your yard? If so, how and/or by how much?

* Actual behavior change questionnaire content to be determined.



APPENDIX G

ILLICIT DISCHARGE DETECTION AND ELIMINATION PLAN



The Illicit Discharge Detection and Elimination (IDDE) Plan will be attached at a later date.