STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0016

Janet T. Mills
GOVERNOR

Bruce A. Van Note
COMMISSIONER

September 14, 2023

Ms. Holliday Keen, MEPDES Stormwater Program Manager
Division of Water Quality Management
Bureau of Water Quality
Maine Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017

SUBJECT: Maine Department of Transportation
Stormwater Program Management Plan
Maine DEP Permit # MER043002
Annual Report for Permit Year One

Ms. Keen:

On behalf of Maine Department of Transportation (MaineDOT), we are pleased to submit this Annual Report for Permit Year One (PY1), (defined as July 1, 2022 through June 30, 2023). This report is intended to satisfy the requirements in ***Part IV(G)*** of the Maine Pollutant Discharge Elimination System (MEPDES) General Permit for Stormwater Discharges from MaineDOT and Maine Turnpike Authority (MTA) Municipal Separate Storm Sewer Systems (MS4s).

This Annual Report describes the status of MaineDOT's Best Management Practices (BMPs) and Measurable Goals (MGs) program for each of the six Minimum Control Measures (MCMs), and efforts to manage direct stormwater discharges to impaired waters, presented in MaineDOT's Stormwater Management Plan (SWMP) (dated June, 2022) for PY1. A copy of the MaineDOT SWMP is on file at the Maine Department of Environmental Protection (DEP) Office in Augusta.

BACKGROUND

MaineDOT's SWMP was developed in accordance with ***Part IV(A, B)*** of the MPDES MS4 General Permit for the purpose of establishing, implementing, and enforcing a stormwater management program to reduce the discharge of pollutants from MaineDOT's roadways, drainage areas and facilities located within Urbanized Areas (UAs). For each MCM established in the SWMP, MGs have been established to evaluate the effectiveness of the designated BMPs. A schedule with milestones for implementation of applicable BMPs have been established for these goals. The SWMP has not been modified or updated since its submittal to the Maine Department of Environmental Protection (Maine DEP) in June 2022; therefore, a copy of the SWMP is not included with this report.

In accordance with ***Part IV(G)*** of the MPDES MS4 General Permit, this Annual Report provides a summary of activities that demonstrate MaineDOT's compliance status with respect to the MS4 permit conditions and progress toward the achievement of the goals identified for each MCM in the subsections below. Outfall monitoring data collection activities are summarized under MCM 3. Anticipated activities in the next permit year are summarized in the following sections and include additional stormwater infrastructure mapping update efforts (BMP 3.1), dry weather inspections (BMP 3.2), MS4 infrastructure maintenance and cleaning (BMP 6.3, 6.4, and 6.5), municipal coordination (BMP 2.2), employee training (BMP 6.2), and ongoing construction projects that include new post-construction BMPs (BMP 5.2). No changes have been made to MGs identified in the SWMP. The subsections below describe the activities, progress, and accomplishments for each of the MCMs.

MCM 1 - PUBLIC EDUCATION AND OUTREACH ON STORMWATER IMPACTS

Goals:

1. To raise awareness that polluted stormwater runoff is one of the most significant sources of water quality problems for Maine's waters;
2. To motivate staff and contractors to use Best Management Practices (BMPs) which reduce polluted stormwater runoff; and
3. To reduce polluted stormwater runoff through increased awareness and utilization of BMPs.

BMP 1.1 RAISE AWARENESS

MaineDOT provides erosion and sedimentation and water pollution control training to employees and contractors annually. These trainings are intended to raise awareness that polluted stormwater runoff is one of the most significant sources of water quality problems in Maine's water with emphasis on stormwater pollution prevention measures during preconstruction meetings and site walks with field staff and contractors.

MaineDOT Employees and Contractors: MS4 urbanized areas are located only in MaineDOT Regions 1 and 4 (Portland area, southern Maine, Lewiston-Auburn area, and the greater Bangor area). This training is further described below, and relevant documentation is retained on file.

MG 1.1a: Training presentations covered contents of the MS4 permit, the SWMP, and stormwater pollution control and were one hour in length. Two trainings were provided, one in Bangor and one in Scarborough. There were 18 MaineDOT staff attendees in Bangor and 35 MaineDOT staff attendees in Scarborough.

Additionally, the MaineDOT Training Center in Fairfield provides a 4-hour Erosion and Sedimentation training session for Maintenance workers. A test is given at the end of these training sessions; employees are expected to be able to correctly describe sources of stormwater pollution, proper maintenance of BMPs, and why they are important. ·This training was provided on September 29, 2022, and was attended by 11 employees.

MG 1.1b: Stormwater pollution prevention was reviewed with Bureau of Project Development (PD) field staff and contractors prior to the start of new construction projects with an acre or more of disturbance in the MS4 UA. There was one PD project in the MS4 UA with an acre or more of disturbance that began during PY1. This project, "WIN 022672.00. FALMOUTH, I295 NB RAMP/BUCKNAM," consists of a temporary detour in the highway median while the bridges are replaced. This area will be restored to the preconstruction condition after work is complete.

BMP 1.2 BMP ADOPTION TO REDUCE POLLUTED RUNOFF

MaineDOT provides annual training to motivate employees and contractors to utilize BMPs to minimize the effects of stormwater runoff. Trainings include stormwater awareness, proper application of BMPs, and environmental and regulatory consequences of failing to use BMPs correctly at project sites. BMPs are required when soil is disturbed, regardless of area disturbed.

MG 1.2a: The trainings are further described above in BMP 1.1 (MG 1.1a), and relevant documentation is retained on file.

All MaineDOT projects that have soil disturbance are required to have a Soil Erosion and Water Pollution Control Plan (SEWPCP) written by a Maine DEP (Department of Environmental Protection) Certified in Erosion Control Practices or equivalent program, or a licensed Professional Engineer, Landscape Architect, or Soil Scientist. Each construction project is assigned a project environmental coordinator to oversee the installation and maintenance of any erosion and sedimentation control BMPs. All SEWPCPs are kept on file with project records.

MG 1.2b: A summary of PD projects in the MS4 UA with an acre or more of disturbance during the PY is summarized below.

- WIN 022672.00, FALMOUTH, I295 NB RAMP/BUCKNAM: This project is a temporary detour in the highway median while the bridges are replaced. This area will be restored to the preconstruction condition.

BMP 1.3 REPORT PROGRESS

MaineDOT reports progress of continuing education and outreach efforts to DEP in accordance with the specified schedule in the SWMP, see BMP 1.1 and 1.2 above. Progress for process indicators is reported annually and progress for impact indicators in PY1, PY3, and PY5. MaineDOT identifies two MGs with reportable process and impact indicators.

MG 1.3a: MaineDOT provides annual employee stormwater awareness training intended to motivate staff to use and properly apply BMPs to minimize stormwater pollution. The process and impact indicator metrics for this goal are described below.

- Process indicator: 53 employees attended the annual stormwater awareness training.
- Impact indicator: Inspection reports were completed, as needed, by the Regional Environmental Coordinator and/or the Stormwater Engineer of maintenance projects within the MS4 UA.

MG 1.3b: MaineDOT conducts on-site erosion and sedimentation control inspections for active construction projects and records observations made during site visit including any complaints or concerns received about the construction site. The process and impact indicator metrics for this goal are described below.

- Process indicator: One new project in the MS4 UA with an acre or more of disturbance was started during this PY (WIN 022672.00, FALMOUTH, I295 NB RAMP/BUCKNAM).
- Impact indicator: Observations made during the on-site erosion and sedimentation control inspections indicated that construction projects are generally effective at preventing erosion and sedimentation. Only non-significant corrective actions, including routine maintenance of controls, were required during this PY.

MCM 2 – PUBLIC INVOLVEMENT AND PARTICIPATION

Goals:

Involve the MaineDOT community including various departments or facilities, and when applicable, involve regulated small MS4 communities, in both the planning and implementation process of improving water quality and reducing quantity via the stormwater program.

BMP 2.1 PUBLIC NOTICE REQUIREMENT

MaineDOT maintains its Rules of Procedures for Adjudicatory Hearings (Chapter 100) and complies with the public notice requirements of the Maine Freedom of Access Act (FOAA).

MG 2.1: No MaineDOT MS4 GP stakeholder implementation meetings were held during PY1.

BMP 2.2 COORDINATE WITH REGULATED COMMUNITIES

MaineDOT maintains close communication with MS4 communities and their respective Stormwater Coordinators, primarily through participation in the Interlocal Stormwater Working Group (ISWG), Bangor Area Stormwater Working Group (BASWG), and the Southern Maine Stormwater Working Group (SMSWG) meetings. Attendance information for these stormwater meetings is reported annually. MaineDOT distributes a Three-Year Work Plan annually to all Municipal MS4 Program Managers to solicit input for potential stormwater BMP implementation associated with all MaineDOT construction projects. MaineDOT remains involved with the evolving management requirements of Urban Impaired Stream (UIS) watersheds both within and outside of the UAs. MaineDOT communicates periodically, through participation in local stormwater group meetings and involvement as a stakeholder with the Maine DEP and host municipalities, regarding watershed management planning efforts within MaineDOT's right-of-way.

MG 2.2: MaineDOT attended four SMSWG meetings, four ISWG meetings and four BASWG meetings. All relevant documentation is retained on file.

MCM 3 – ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)

Goals:

Implement and enforce a program to detect and eliminate illicit discharges and non-stormwater discharges in MaineDOT's stormwater systems.

BMP 3.1 IDDE PLAN

MaineDOT's IDDE Plan (SWMP Appendix E) addresses any discharge that is not uncontaminated groundwater, water from a natural resource, or an allowable non-stormwater discharge. The IDDE Plan addresses 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. MaineDOT reviews and updates the IDDE Plan periodically.

MG 3.1: No IDDE Plan changes were made during this PY.

BMP 3.2 MAINTAIN MAPS

MaineDOT maintains a map of its storm sewer system within the UAs. The MS4 map includes layers showing the locations of stormwater catch basins, ditches, and outfalls; the flow direction, the interconnection points to other MS4s, and the name of the receiving water for each outfall. Each stormwater asset is uniquely identified to facilitate control of potential illicit discharges, and to ensure proper operation and maintenance of these structures.

MG 3.2: During PY1, map maintenance updates of culverts / catch basins were performed for MS4 areas online, continuously. Assets that were not in inventory (NII) were removed from the feature layer.

BMP 3.3 DRY WEATHER OUTFALL INSPECTION PROGRAM

MaineDOT's IDDE Plan (SWMP Appendix E), outlines the conditions under which dry weather outfall inspections will be conducted and how they will be documented.

MG 3.3: As part of MaineDOT's prioritized dry weather inspection program, GZA GeoEnvironmental, Inc. (GZA) staff conducted dry weather inspections at 121 outfalls in PY1. Outfall sampling was conducted, and field measurements were taken pursuant to the sampling procedures in the Quality Assurance Project Plan (QAPP) found in MaineDOT's IDDE Plan Appendix D. Field measurements for temperature, conductivity, ammonia, and free chlorine were performed at each flowing outfall. Water from each flowing outfall was collected on a cotton pad and observed in a viewing cabinet under a long-wave ultraviolet (UV) lamp (model VWR UV-A Hand Lamp - 365nm UV), in accordance with the procedures referenced in Appendix F4 of the 2004 Illicit Discharge Detection and Elimination Guidance Manual[1], to detect the presence of optical brighteners. Samples obtained from flowing outfalls were brought to a lab for Escherichia coli (E. coli) analysis. Of the 12 sampled outfalls, four (4) exceeded the level of 236cfu/100mL for E. coli and are being investigated. The four (4) exceedances were in the following towns with outfall IDs in parenthesis: Auburn (A3), South Berwick (SB8), Eliot (E4), and Milford (M21).

GZA staff prepared monthly outfall inspection summary reports and photo logs which have been kept on file along with sampling forms and lab results for at least five years.

BMP 3.4 WET WEATHER ASSESSMENT

In accordance with Part IV(C)(3)(d) of the MS4 GP and prior to June 30, 2027, MaineDOT will perform a wet weather assessment for the potential for illicit discharges during wet weather events. Following the wet weather assessment, MaineDOT's IDDE Plan will be updated to include a brief description of the data and process used to perform the assessment, the list of outfalls identified for wet weather monitoring, the rationale for including these outfalls, and the timing and frequency of wet weather monitoring to be completed during the next permit cycle. Once the wet weather assessment is completed, the updated IDDE Plan with the results of the wet weather assessment will be provided with the MaineDOT's annual report.

MG 3.4: MaineDOT anticipates performing a wet weather assessment in PY5.

BMP 3.5 ALLOWABLE NON-STORMWATER DISCHARGES

If the MaineDOT identifies any allowable non-stormwater discharges as significant contributors of pollutants to the MS4, then the MaineDOT will implement measures and/or cooperate with responsible dischargers to control these sources so they are no longer significant contributors of pollutants. The MaineDOT will identify in its annual report if it has identified any of these sources as a significant contributor of pollutants to the MS4.

[1] https://www3.epa.gov/npdes/pubs/idde_manualwithappendices.pdf

MG 3.5: MaineDOT did not identify any allowable non-stormwater discharges as significant contributors of pollutants to the MS4 in this PY.

MCM 4 – CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

Goals:

Continue to implement and enforce MaineDOT's program of construction site stormwater runoff control in accordance with the Memorandum of Agreement (MOA) for Stormwater Management Between MaineDOT, Maine Turnpike Authority, and DEP to minimize or eliminate pollutants in stormwater runoff from construction activities that result in disturbed area of greater than or equal to one acre.

BMP 4.1 CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

MaineDOT continues to implement and enforce an Erosion and Sedimentation Control Program to reduce pollutants in stormwater runoff from all its construction activities. MaineDOT's Standard Specification 656 requires a Soil Erosion and SEWPCP to be developed by project contractors. MaineDOT identifies three MGs required by BMP 4.1, which are described below.

MG 4.1a: Standard Specification 656 requires the use of erosion and sediment control best management practices (BMPs) at construction sites consistent with the minimum standards outlined in Appendix C *Erosion and Sedimentation Control, Inspections and Maintenance and Housekeeping* of the MS4 GP (Maine DEP Chapter 500 Stormwater Management Rules Basic Standards). Standard Specification 656 also requires adherence to the current edition of the *MaineDOT Best Management Practices for Erosion and Sedimentation Control*. Standard Specification 656 includes requirements for construction site operations to control waste such as discarded building materials, concrete truck wash-outs, chemicals, litter, and sanitary waste at construction sites that may cause adverse impacts to water quality.

MG 4.1b: For projects administered from the MaineDOT State Office, MaineDOT assigns an Environmental Construction Support (ECS) member, overseen by the Surface Water Quality Unit, to manage the construction. For projects administered by the MaineDOT Regional Offices, including non-contracted maintenance activities, the Regional Environmental Coordinators (REC) oversees the construction. The ECS/REC assist the Environmental Office Permitting Unit and project design team with permit requirements and potential surface water impacts during the design phase. The ECS/REC also assists the project Resident Engineer to ensure compliance with this specification and the MOA. The ECS/REC must review the SEWPCP provided by the contractor.

MG 4.1c: The ECS/REC typically attend the project pre-construction meeting and any site walks with the contractors and Resident in regards to the SEWPCP. Routine erosion and sedimentation control inspections are completed by the ECS/REC and an inspection report is completed. The Resident has the authority to suspend work and enforce financial penalties in the event of non-compliance with the SEWPCP. The contractor is required inspect and monitor all controls and keep a written log of performance, failure, and any corrective actions for all controls in place. All pertinent information is recorded in the Resident's project file.

A minimum of three erosion and sediment control inspections will be completed during the active earth-moving phase of construction. One of the three inspections will be conducted at project completion to ensure that the site reached permanent stabilization and all temporary erosion and sediment controls have been removed.

Routine erosion and sediment control inspection reports are kept in the Environmental Office project file for at least three years following the expiration of the MS4 General Permit. Below is a summary of new projects in the MS4 UA with one acre or more of disturbance during this PY that required contractors to provide a SEWPCP. This satisfies the annual reporting requirements for MGs 4.1a, 4.1b, and 4.1c.

- WIN 022672.00, FALMOUTH, I295 NB RAMP/BUCKNAM: This project is a temporary detour in the highway median while the bridges are replaced. This area will be restored to the preconstruction condition.

MCM 5 – POST-CONSTRUCTION STORMWATER MANAGEMENT

Goals:

To implement and enforce a program for managing post-construction stormwater runoff from new development and redevelopment projects that discharge to the MS4 or directly to waters of the State. The program encompasses a combination of structural or non-structural BMPs, and control measures to ensure long-term operation and maintenance of on-site BMPs and that BMPs are adequately functioning as intended, including annual inspections and requirements for corrective actions.

BMP 5.1 IMPLEMENTATION OF STRUCTURAL OR NON-STRUCTURAL BMPS

MaineDOT's program to address stormwater runoff from new development, redevelopment, and projects of a common plan of development or sale that disturbs greater than or equal to one acre of UA follow the guidelines and standards specified in the most current Memorandum of Agreement (MOA). For linear projects, there are additional Chapter 500 requirements that will be followed to the extent practicable as determined through consultation with DEP if certain conditions are met. Those conditions are as follows: (1) disturbs one acre or more of UA, (2) discharges into an MS4 or directly discharges into the waters of the state, (3) is not located in the direct watershed of a "lake most at risk from new development" or in the watershed of an urban impaired stream, and (4) increases existing impervious area by one acre or more.

MG 5.1a: Below is a summary of the cumulative number, location, and type of structural post-construction stormwater BMPs located within the UA or collecting runoff from the UA along with new stormwater BMPs that were completed and went into service during this PY.

Project	Town	Region	BMP
BMPs Completed Prior to PY1			
I-295 Emergency Safety Areas	Cumberland/ Falmouth	1	Four Media Filter Drains
Sarah Mildred Long Bridge	Kittery	1	Two Underdrain Soil Filters
Route 126 Reconstruction	Sabattus	1	One Underdrain Filter Ditch
I-295 Westbrook Street Exit	South Portland	1	One Underdrain Filter Ditch
I-95/Route 1 Connector	South Portland	1	Seven Bioslopes
I-295 Park and Ride	Yarmouth	1	Three Bioretention Cells and One Underdrain Ditch
BMPs Completed During PY1			
Veranda Street Bridge	Portland	1	Underdrain Filter Basin

MG 5.1b: To address planning, design, operation, and maintenance of MaineDOT's post-construction stormwater treatment measures, MaineDOT is planning to develop a comprehensive "Post-Construction Stormwater Management Manual." MaineDOT has contracted VHB to develop this manual and conducted a kick-off meeting with VHB and MaineDOT staff during this PY.

BMP 5.2 ANNUAL INSPECTIONS OF POST-CONSTRUCTION STORMWATER TREATMENT BMPS

MaineDOT will complete annual inspections of post-construction stormwater treatment BMPs located within the UA, or that collect runoff from within the UA. The annual inspections will be completed by qualified MaineDOT staff or consultants that are knowledgeable on the design, operation, and maintenance of the BMPs. The inspections will evaluate the condition of inlets and outlets, slope stability, vegetative cover, hydrologic function and drainage, and sediment accumulation.

MG 5.2a: Below is a summary of the post-construction BMP inspection findings during this PY.

Project	BMP	Inspection Findings
BMPs Completed Prior to PY1		
I-295 Emergency Safety Areas	Four Media Filter Drains	N/A
Sarah Mildred Long Bridge	Two Underdrain Soil Filters	USF #1 and #2 Sound and Functional
Route 126 Reconstruction	One Underdrain Filter Ditch	Sound and Functional
I-295 Westbrook Street Exit	One Underdrain Filter Ditch	Functioning as intended
I-95/Route 1 Connector	Seven Bioslopes	Bioslopes #1, 6, 7 need to be re-seeded. Bioslopes #2,3,4,5 have greater than or equal to 90% coverage.
I-295 Park and Ride	Three Bioretention Cells and One Underdrain Ditch	Bioretention cells #1 and 2 are sound and functional. Bioretention cell #3 has clogged. Water is clear and flowing. Must be excavated and rebuilt. At that time the underdrain should be inspected.
BMPs Completed During PY1		
Veranda Street Bridge	Underdrain Filter Basin	N/A

MG 5.2b: Based on the findings of the annual BMP inspections, no corrective actions were implemented during PY1.

MCM 6 – POLLUTION PREVENTION / GOOD HOUSEKEEPING

Goals:

Reduce pollutant runoff from MaineDOT's roads, other paved surfaces, infrastructure, and facilities through the development and implementation of an operation and maintenance (O&M) program within the UA.

BMP 6.1 INVENTORY OF OPERATIONS AND OPERATION AND MAINTENANCE PROCEDURES

The MaineDOT has developed an inventory of potential pollutant sources and associated operations which is summarized in Appendix D Written Procedures of MaineDOT's June 2022 SWMP. These procedures include O&M procedures that are implemented in policies and Standard Operating Procedures (SOPs) to reduce stormwater pollution. As part of MaineDOT's adaptive approach to stormwater management, MaineDOT reviews these procedures annually to identify new potential pollutant sources and to make any procedural modifications.

MG 6.1: No changes were warranted during review of these procedures during PY1.

BMP 6.2 ANNUAL EMPLOYEE TRAINING

In addition to the annual employee trainings addressing stormwater pollution prevention and erosion and sediment control (see BMP 1.1), MaineDOT's training program also incorporates construction and post-construction inspection and O&M requirements.

MG 6.2: The number and duration of training sessions, the type and content of the training, and the number of employees trained is summarized under BMP 1.1.

BMP 6.3 STREET SWEEPING

The MaineDOT conducts annual street-sweeping to remove grit and fines associated with winter road maintenance activities each spring after snow-melt. MaineDOT generally reuses the collected sweepings as construction fill material.

MG 6.3: Street sweeping completed within the UA during this PY totaled approximately 264 miles.

BMP 6.4 MAINEDOT MAINTENANCE AND OPERATIONS

MaineDOT's Bureau of M&Os has a program in place to regularly inspect, clean, maintain, repair, and replace catch basins and other stormwater structures. The M&O catch basin cleaning program is implemented statewide, not limited to MS4 urbanized areas.

MG 6.4: In PY1, in the MS4 UAs, which are in Regions 1 and 4, approximately 2,800 catch basins were inspected and cleaned, if warranted. MaineDOT keeps records of the catch basin inspection and cleanout information in its internal database (MATS).

BMP 6.5 STORMWATER INFRASTRUCTURE INSPECTION AND PRIORITIZATION

MaineDOT's M&O crews regularly assesses stormwater infrastructure for maintenance needs including repairs and replacements.

MG 6.5: Stormwater infrastructure maintenance, including repair and replacement, completed within the UA during PY1 included 31 catch basins that were repaired or replaced.

BMP 6.6 STORMWATER POLLUTION PREVENTION PLANS

MaineDOT currently operates two vehicle maintenance facilities within the UA, one in Bangor and one in Scarborough.

MG 6.6: MaineDOT reviewed the SWPPPs for Bangor (dated August 2022) and Scarborough (dated July 2022) and determined that the plans are up-to-date with the exception of the individual named as the primary coordinator for the pollution prevention teams. The SWPPPs for Bangor and Scarborough will be updated in PY2 to reflect the correct primary coordinator.

URBAN IMPAIRED STREAM BMPS

The table below summarizes the BMP progress that MaineDOT has completed in each UIS watershed. Following the table is further information on the winter salt application and smart chloride mitigation system.

Urban Impaired Stream (UIS)	Stressors	BMP Progress
Arctic Brook (Bangor)	DO, Chloride, Habitat/Flow	1. Winter Salt Application Information 2. Smart Chloride Mitigation System 3. Working with the City of Bangor for partnering opportunities, which may include items identified in fluvial geomorphology assessment report.
Concord Gully (Freeport)	Chloride, Habitat/Flow	1. Winter Salt Application Information 2. Smart Chloride Mitigation System 3. I-295 Exit 20 Bridge Project, which includes construction of an underdrain filter basin (anticipated completion date is 11/07/2024) 4. Working with the Town of Freeport to identify partnering opportunities, which may include projects identified in the Concord Gully Watershed Management Plan.
Frost Gully Brook (Freeport)	Flow/Habitat Instability	1. Working with the Town of Freeport to identify partnering opportunities, which may include development of a Watershed Management Plan or Geomorphology Plan. As of August 15, 2023, moving forward with price quote and scope of work for Geomorphology Plan with Town of Freeport. 2. Proposed work on culvert upgrades under I-295 for fish passage. Requested quote from CHM, waiting for response.
Goosefare Brook (Saco)	Chloride, Nutrients, Habitat	1. Winter Salt Application Information 2. Smart Chloride Mitigation System 3. Park and Ride Expansion, which includes construction of an underdrain soil filter (anticipated completion date is 10/2024)
Nasons Brook (Westbrook, Portland)	Habitat, Chloride	1. Winter Salt Application Information 2. Smart Chloride Mitigation System

Urban Impaired Stream (UIS)	Stressors	BMP Progress
Penjajawoc Stream (Bangor)	DO, Chloride	1. Winter Salt Application Information 2. Smart Chloride Mitigation System 3. Diverging Diamond Interchange (Hogan Rd-I95), which includes construction of a post-construction BMP is scheduled to begin 6/9/24.
Red Brook (Scarborough/South Portland)	Habitat/Flow, Habitat/Crossings, Chloride	1. Winter Salt Application Information 2. Smart Chloride Mitigation System 3. Stream crossing upgrade, which includes culvert rehabilitation (anticipated completion date is 12/2023). 4. Stream crossing upgrade, which includes aquatic organism passage restoration (anticipated completion date is 10/21/2026).
Sucker Brook (Bangor, Hampden)	Chloride, DO/Nutrient Enrichment	1. Winter Salt Application Information 2. Smart Chloride Mitigation System

Winter Salt Application Information:

As identified in its SWMP, MaineDOT is providing the following information regarding its winter salt application for the UIS watersheds for which chloride has been identified as a priority stressor.

Urban Impaired Stream (UIS)	Spreader Control Upgrades PY1 (July 2022 – June 2023)	Winter Salt Application Rates		Accumulated Winter Season Severity Index (AWSSI)*
		Seasonal per Lane Mile	Seasonal per Impervious Area (ac)	
Arctic Brook (Bangor)	2 of the control spreaders were upgraded in Region 4	15.6	6.5	795
Concord Gully (Freeport)	1 of the control spreaders was upgraded in Region 1	23.6	9.6	618
Goosefare Brook (Saco)	This section of MaineDOT highway is maintained by MTA			618
Nasons Brook (Westbrook, Portland)	This section of MaineDOT highway is maintained by the Town			618
Penjajawoc Stream (Bangor)	2 of the control spreaders were upgraded in Region 4	15.6	6.4	795
Red Brook (Scarborough, South Portland)	1 of the control spreaders was upgraded in Region 1	34.3	14.1	618
Sucker Brook (Bangor, Hampden)	2 of the control spreaders were upgraded in Region 4	15.6	6.4	795

* Accumulated Winter Season Severity Index (AWSSI) (https://mrcc.purdue.edu/research/awssi/indexAwssi.jsp)

ME and Neighboring State Information	ME	NH	MA	VT
Average state-wide salt application rate. **Tons divided by Lane Miles**	18 Tons / Lane Mile	23 Tons/ Lane Mile	24 Tons / Lane Mile	19 Tons / Lane Mile
Salt application Data from Clear Roads, Annual Survey of State Winter Maintenance Data (https://clearroads.org/winter-maintenance-survey/)	Total Lane miles 8,223	Total Lane Miles 9,366	Total Lane Miles 15,436	Total Lane Miles 6,511
	Total dry NaCl July 2021 – June 2022 148,151 Tons	Total dry NaCl July 2021 – June 2022 211,911 Tons	Total dry NaCl July 2021 – June 2022 371,000 Tons	Total dry NaCl July 2021 – June 2022 123,325 Tons

Smart chloride mitigation system:

During this permit year MaineDOT reviewed UIS watersheds to identify possible locations for a smart chloride mitigation system. However, due to right-of-way limitations in the UIS watersheds it was determined that there is not enough space to install a smart chloride mitigation system in a UIS watershed. Therefore, MaineDOT has begun a pilot study which may be applied to other sites. The MaineDOT contracted with the University of New Hampshire (UNH), Tom Ballosteros, and a Smart Chloride pilot study has begun with sampling sites in South Berwick (Driscoll Brook), Kittery Rest Area (Libby Brook), and Hampden (Reed's Brook).

CONCLUSION

In accordance with the MPDES General Permit ***Part IV(G)***, this Annual Report presents a summary of significant goals achieved during the first year (July 1, 2022 through June 30, 2023) of implementing MaineDOT's SWMP including an evaluation of BMPs and MGs established for the six MCMs and UISs. If you have any questions concerning this Annual Report of MaineDOT's MS4 SWMP, please do not hesitate to contact Cindy L. Dionne at cindy.l.dionne@maine.gov or (207) 592-3489.

In accordance with the MPDES General Permit ***Part III(A)***, we 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 our 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. We are aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

David Gardner
Environmental Office Director
MaineDOT

Cindy L. Dionne
Stormwater Manager, Environmental Office
MaineDOT