



CITY OF AUBURN



STORMWATER MANAGEMENT PROGRAM PLAN



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1. STORMWATER PROGRAM OVERVIEW

WHY IS THIS IMPORTANT?

Stormwater runoff commonly transports pollutants through municipal separate storm sewer systems (MS4s), where it is discharged, often untreated, into local water bodies. To the public, the MS4 is more commonly known as a stormwater drainage system or simply as the “drain.” These stormwater drains have been constructed in developed areas to reduce the risk of flooding and damage to our built infrastructure. Unfortunately, stormwater drainage systems carry pollution during rain events and snow melt – this can include oil, trash, and any other materials found on lawns, streets, and parking lots.

In the City of Auburn, stormwater runoff discharges that are conveyed by the MS4 to the environment are regulated under the Clean Water Act and require a permit. Auburn is one of thousands of communities and institutions across the country that must comply with these regulations. The stormwater drainage system discharge permit is known as the “MS4 General Permit” and is issued and managed by both the U.S. Environmental Protection Agency (EPA) and the State of Maine Department of Environmental Protection (ME DEP).

WHAT DOES AUBURN HAVE TO DO?

The City of Auburn has had MS4 permit coverage since 2003. As part of the permitting requirements, Auburn is required to develop a written Stormwater Management Program (SWMP). This SWMP (Plan) is a “living” reference document that will guide the City’s implementation of requirements within the permit. Auburn is required to keep records of, and report on, the activities and measures that are implemented and consistent with this Plan. MS4 General permit requirements are summarized (and simplified) as follows:



Implement public education programs to help City residents, business owners, and developers understand their role in keeping stormwater clean.



Engage the public in decision-making throughout the program.



Find and fix leaky or unauthorized sanitary sewer lines or other non-stormwater sources that might be discharging into the drainage system.



Ensure that construction projects do not pollute runoff with sediments and debris.



Ensure that new development and redevelopment control and treat runoff before it leaves the property.



Engage in pollution prevention actions like road and parking area best practices (cleaning drainage systems and sweeping pavements), and ensure that municipal activities like vehicle washing, lawn maintenance, and materials storage do not contribute to stormwater pollution.



The City of Auburn is located within Androscoggin County and has a population of over 23,000, according to the 2010 census. The City of Auburn is located within the Androscoggin River watershed and the City's regulated MS4 area has three primary tributaries: Little Androscoggin River, Bobbin Mill Brook, and Taylor Brook, that flow through the community before discharging into the Androscoggin River. Auburn is bordered to the east by the Androscoggin River, which discharges into the Kennebec River. Auburn also has several ponds, including Taylor Pond and Willis Pond, used by the community for fishing and boating. A public water supply watershed surrounds Lake Auburn, which is the public water source for the Lewiston-Auburn area. The Auburn Public Works Department maintains over 130 miles of drainage pipe and thousands of drainage structures that discharge stormwater from the MS4 to the environment in hundreds of locations. The City's drinking water and sanitary sewer system is operated and maintained by the Auburn Water & Sewerage District (AWSD), which is a separate entity from the City of Auburn. The City and the AWSD cooperate on various elements of the stormwater program, as described herein. Auburn continues to strive at making improvements to its stormwater management program every year to protect and improve its water resources.

1.1 MINIMUM CONTROL MEASURES AND MEASUREABLE GOALS

As per Part IV of the 2022 MS4 General Permit, traditional MS4s must implement a SWMP that includes the following six (6) minimum control measures (MCMs).

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

As required by the 2022 MS4 General Permit, there are specific actions that must be undertaken to reduce stormwater pollution. These actions are called Best Management Practices (BMPs). The following plan outlines these BMPs, the measurable goal for each BMP, the deadline for development and implementation of BMPs, and the responsible party for implementing the BMP. Section 1.5 of this SWMP identifies the person(s) or department(s) responsible for the BMPs identified in this SWMP.

The Permit Year (PY) corresponds to each regulatory year starting on July 1, 2022.



MCM 1: Education/Outreach Program (Permit Section IV.C.1.)

Objective: Implement an education program that addresses stormwater issues of significance. The ultimate objective of a public education program is to increase knowledge of and help change behaviors of the target audiences so that pollutants in stormwater are reduced. The target audiences are the general public, property owners and municipal audiences.

BMP ID #	BMP Description	Permit Section Reference	Measurable Goal(s)	Deadline(s)
1.1a	Implement raise awareness campaign targeting the general public	IV.C.1.g.1.	<p>Auburn, through its participation in the AVSWG, will raise 15% of the target audience’s awareness of what happens to stormwater at their residence or place of work.</p> <ul style="list-style-type: none"> • 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. • Outreach Tools: A minimum of three outreach tools will be selected from <i>Appendix E, Table 1. Tools for Measurable Goal 1.1a</i> each year. Each tool will be assessed and customized based on the target audience’s receptiveness to the method. Any tool used in a given year will be tailored to the message for the relevant target audience subset based on common characteristics and/or demographics. • Evaluation: Effectiveness will be evaluated annually by tracking process indicators for each tool implemented that year and by tracking impact indicators where available (See <i>Appendix E, Table 1. Tools for Measurable Goal 1.1a</i>). Effectiveness will also be measured by the number of DEP certified contractors located in the AVSWG region over the course of the permit term. <p>Implementation schedule: A minimum of three of the tools from <i>Appendix E, Table 1. Tools for Measurable Goal 1.1a</i> will be implemented each year for the duration of the permit. As part of the AVSWG adaptive management education and outreach program, tools and messaging will be reviewed and evaluated on an annual basis, at a minimum, as part of annual reporting. To address emerging issues, opportunistic tools and outreach may also be implemented. Seasonal messaging and tool adjustments will be used when applicable. Report findings will be incorporated into annual workplans and budgets.</p>	Annual



BMP ID #	BMP Description	Permit Section Reference	Measurable Goal(s)	Deadline(s)
1.1b	Implement raise awareness campaign targeting municipal leadership	IV.C.1.g.1.	<p>A baseline evaluation will be conducted in Permit Year 1 to establish municipal leadership awareness and the baseline for the target audience.</p> <p>Auburn will raise awareness of City leadership from the Permit Year 1 established baseline evaluation about chloride-related stormwater pollutants and methods available to reduce discharge of those pollutants.</p> <ul style="list-style-type: none"> • Target Audience: Auburn elected and non-elected leadership. • Overarching Message: “Through proper management of winter salt and brine usage we can reduce the potential to negatively impact local water bodies, save money, and extend infrastructure longevity.” This message will be presented with variations based on target audience interests and outreach tools used. • Outreach Tools: A minimum of three outreach tools will be selected from <i>Appendix E, Table 2. Tools for Measurable Goal 1.1b</i> each year. Each tool will be assessed and customized based on the target audience’s receptiveness to the method. Any tool used in a given year will be tailored to the message for the relevant target audience subset based on common characteristics and/or demographics. • Evaluation: Effectiveness will be evaluated annually by tracking process indicators for each tool implemented that year and by tracking impact indicators where available (See <i>Appendix E, Table 2. Tools for Measurable Goal 1.1b</i>). Effectiveness will also be measured by the number of DEP certified contractors located in the AVSWG region over the course of the permit term. <p>Implementation schedule: A minimum of three of the tools from <i>Appendix E, Table 2. Tools for Measurable Goal 1.1b</i> will be implemented each year for the duration of the permit. As part of the AVSWG adaptive management education and outreach program, tools and messaging will be reviewed and evaluated on an annual basis, at a minimum, as part of annual reporting. To address emerging issues, opportunistic tools and outreach may also be implemented. Seasonal messaging and tool adjustments will be used when applicable. Report findings will be incorporated into AVSWG meeting discussions as well as annual workplans and budgets.</p>	Annual
1.2a	Implement change behavior campaign	IV.C.1.g.2.	Auburn will work towards changing the behavior of 15% of property owners from the established baseline audience of property owners to manage their lawns in a more	Annual



BMP ID #	BMP Description	Permit Section Reference	Measurable Goal(s)	Deadline(s)
	targeting property owners ages 35 to 55		<p>environmentally friendly way. A baseline evaluation was conducted in Permit Year 5 of the previous MS4 General Permit regarding previous behavior change campaign for property owners 35 to 55 and will be utilized to establish our baseline for this permit term.</p> <ul style="list-style-type: none"> • Target audience: Property owners ages 35 to 55 within Auburn. • Overarching Message: “Protect the health and safety of your kids, pets, and water by reducing use of fertilizer and weed and bug killers on your lawn. Mow High, Let the Clippings Lie, Reduce/Eliminate Fertilizer Use, Reduce Herbicide Use, Reduce Pesticide Use, Water Wisely.” • This message will be presented with variations based on target audience interests and outreach tools used. • Outreach Tools: A minimum of three outreach tools will be selected from <i>Appendix E, Table 3. Tools for Measurable Goal 1.2a</i> each year. Each tool will be assessed and customized based on the target audience’s receptiveness to the method. Any tool used in a given year will be tailored to the message of the relevant target audience subset based on common characteristics and/or demographics. • Evaluation: Effectiveness will be evaluated annually by tracking process indicators for each tool implemented that year and by tracking impact indicators where available (See <i>Appendix E, Table 3. Tools for Measurable Goal 1.2a</i>). <p>Implementation schedule: A minimum of three of the tools from <i>Appendix E, Table 3. Tools for Measurable Goal 1.2a</i> will be implemented each year for the duration of the permit. As part of the AVSWG adaptive management education and outreach program, tools and messaging will be reviewed and evaluated on an annual basis, at a minimum, as part of annual reporting. To address emerging issues, opportunistic tools and outreach may also be implemented. Seasonal messaging and tool adjustments will be used when applicable. Report findings will be incorporated into AVSWG meeting discussions as well as annual workplans and budgets.</p>	
1.2.b	Implement change behavior campaign targeting municipal property managers.	IV.C.1.g.2.	<p>Auburn will work towards changing the behavior of 15% of municipal property managers from the established baseline audience in Permit Year 1 to manage turf field and municipal landscapes in a more environmentally friendly way.</p> <ul style="list-style-type: none"> • Target audience: Municipal property managers and staff within Auburn. • Overarching Message: “Protect the health and safety of our citizens, pets, and water 	



BMP ID #	BMP Description	Permit Section Reference	Measurable Goal(s)	Deadline(s)
			<p>by reducing use of fertilizer and weed and bug killers on municipal properties. Mow High, Let the Clippings Lie, Reduce/Eliminate Fertilizer Use, Reduce Herbicide Use, Reduce Pesticide Use, Water Wisely.”</p> <ul style="list-style-type: none"> • This message will be presented with variations based on target audience interests and outreach tools used. • Outreach Tools: A minimum of three outreach tools will be selected from <i>Appendix E, Table 4. Tools for Measurable Goal 1.2b</i> each year. Each tool will be assessed and customized based on the target audience’s receptiveness to the method. Any tool used in a given year will be tailored to the message of the relevant target audience subset based on common characteristics and/or demographics. • Evaluation: Effectiveness will be evaluated annually by tracking process indicators for each tool implemented that year and by tracking impact indicators where available (See <i>Appendix E, Table 4. Tools for Measurable Goal 1.2b</i>). <p>Implementation schedule: A minimum of three of the tools from <i>Appendix E, Table 4. Tools for Measurable Goal 1.2b</i> will be implemented each year for the duration of the permit. As part of the AVSWG adaptive management education and outreach program, tools and messaging will be reviewed and evaluated on an annual basis at a minimum as part of annual reporting. To address emerging issues, opportunistic tools and outreach may also be implemented. Seasonal messaging and tool adjustments will be used when applicable. Report findings will be incorporated into AVSWG meeting discussions as well as annual workplans and budgets.</p>	
1.3	Assess educational program and modify if needed	IV.C.1.h & i.	<p>Auburn 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 outreach tools used, the methods used to determine on-going effectiveness of the campaigns, and any changes planned based on the measures of effectiveness.</p> <p>Formal effectiveness evaluation will be initiated in Permit Year 5 as described below.</p> <p>In Permit Year 5 of the 2022 MS4 General Permit, Auburn, through its participation in AVSWG, will conduct an evaluation of the overall effectiveness of the Awareness and Behavior Change BMPs (BMPs 1.1 and 1.2). The evaluation will be a review of the annually reported benchmark values for the Awareness and Behavior Change BMPs as</p>	Annual



BMP ID #	BMP Description	Permit Section Reference	Measurable Goal(s)	Deadline(s)
			<p>well as documentation of overall changes during the permit term by comparing back to the established baselines.</p> <ul style="list-style-type: none"> • For Measurable Goal 1.1a, a survey will be conducted in Permit Year 5 to assess the target audience’s awareness of stormwater issues and what happens to stormwater at their residence or place of work and will be compared to the survey issued in 2018. • For Measurable Goal 1.1b, the number of municipal leaders in Permit Year 5 will be compared to the Permit Year 1 established baseline audience to determine the net number of informed municipal leaders regarding environmentally appropriate chloride application. • For Measurable Goals 1.2a and 1.2b, a survey will be conducted in Permit Year 5 to assess the target audience’s awareness of yardscaping BMPs at their residence or place of work and will be compared to the survey issued in 2018 and/or Permit Year 1. <p>The evaluation will identify recommendations for future awareness and behavior change target audiences, messages, tools, and benchmarks.</p>	



MCM 2: Public Involvement and Participation (Permit Section IV.C.2.)

Objective: Provide opportunities to engage the public in both the planning and implementation process of the stormwater program.

BMP ID #	BMP Description	Permit Section Reference	Measurable Goal(s)	Deadline(s)
2.1	Conduct annual public participation activity	IV.C.2.a & b.	<p>Host, conduct, or participate in a public event with a pollution prevention and/or water quality theme. All public involvement activities shall comply with state public notice requirements. It is anticipated that the public event utilized for this permit cycle will continue to be during the Auburn Night Out. The Auburn Night Out is conducted each summer.</p> <p>Document and report on activities.</p>	Annual
2.2	Annually present on MS4 Permit program	IV.C.2.	<p>Provide an update to City leadership via communication on progress towards meeting the City's MS4 Permit requirements and progress towards achieving its identified, measurable goals. Provide information on any planned changes to the SWMP. All public involvement activities shall comply with state public notice requirements.</p> <p>Document and report on activities.</p>	Annual



MCM 3: Illicit Discharge Detection and Elimination (IDDE) (Permit Section IV.C.3.)

Objective: Implement an IDDE program to systematically find and eliminate sources of non-stormwater discharges to the municipal separate storm sewer system.

BMP ID #	BMP Description	Permit Section Reference	Measurable Goal(s)	Deadline(s)
3.1	Continue MS4 system mapping	IV.C.3.d.	Update the separate storm sewer system map annually as the following information becomes available: outfalls, pipes, manholes, catch basins, interconnections, stormwater management features, refined catchment delineations, municipal sanitary sewer, and combined sewer systems (if available or applicable).	Annual
3.2	Refine written IDDE Program Manual	IV.C.3.a. & b.	<p>Refine written IDDE Program document to meet new permit requirements, ensuring that it includes at a minimum:</p> <ul style="list-style-type: none"> • Legal authority (ordinance), statement of responsibilities, outfall/interconnection inventory and initial catchment priority ranking, dry weather outfall inspection and dry weather flow sampling procedures, Quality Assurance Program Plan (QAPP), and illicit discharge confirmation and removal procedures. 	Annual
3.3	Conduct dry weather Outfall/ Interconnection screening and sampling	IV.C.3.e.	<p>Conduct dry-weather Outfall/Interconnection screening annually to meet permit requirement of all outfalls screened by the end of Permit Year 5.</p> <ul style="list-style-type: none"> • City owns and/or operates approximately 198 outfalls. Complete approximately 40 dry-weather screenings per permit year starting in Permit Year 1. Provide data annually. <p>Dry weather screening and sampling (no more than 0.25" of rainfall within 72 hours):</p> <ul style="list-style-type: none"> • Record condition and information for inventory and priority ranking. • If flowing, sample for ammonia, chlorine, conductivity, salinity, e. coli, surfactants, and temperature. 	All outfalls screened by end of PY5



BMP ID #	BMP Description	Permit Section Reference	Measurable Goal(s)	Deadline(s)
3.4	Conduct investigation of dry weather flow and potential illicit discharges identified during screening and sampling	IV.C.3.e.iv.	<p>Where sampling of dry weather flow at an outfall does not exhibit evidence of an illicit discharge:</p> <ul style="list-style-type: none"> • 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. • 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 BMP 3.3. <p>Where sampling of dry weather flow at an outfall exhibits evidence of a potential illicit discharge:</p> <ul style="list-style-type: none"> • Conduct systematic upstream sampling at key junction manholes 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). 	During permit term, document annually
3.5	Conduct expeditious removal of verified sources of illicit discharge and confirmatory screening	IV.C.3.b.v.	<p>Upon verification of an illicit discharge, locate, identify, and eliminate the illicit discharge as expeditiously as possible. Where elimination of an illicit discharge within 60 days is not possible, establish an expeditious schedule and report the dates of identification and schedule for removal in the annual report.</p> <ul style="list-style-type: none"> • Confirm removal of verified illicit discharges through follow-up screening and inspection. 	During permit term, document annually



BMP ID #	BMP Description	Permit Section Reference	Measurable Goal(s)	Deadline(s)
3.6	Conduct wet weather assessment	IV.C.3.f.	<p>Conduct an assessment of outfalls for the potential for illicit discharges during wet weather events, utilizing data collected during the permit cycle, to develop a list of outfalls identified for wet weather monitoring and testing in the next permit cycle. This list will be included in the written IDDE plan along with the rationale for including each outfall. The assessment will take into consideration:</p> <ul style="list-style-type: none"> • Areas within the MS4 that have combined sewer systems; • The potential for shared manholes with high-level overflows from the sanitary sewer system into the MS4; • Other sanitary sewer collection “trouble areas” identified during Sanitary Sewer Evaluation Surveys; • Complaints of sewage odor at a stormwater outfall during wet weather events; and/or • Direct discharge from the stormwater system to any of the following: <ul style="list-style-type: none"> - A public beach or recreational area; and/or - A water body impaired for bacteria. 	End of PY5
3.7	Evaluate the overall effectiveness of the IDDE Program	IV.3	<p>Evaluate the overall effectiveness of the IDDE Program using the indicators for tracking program success as defined in the IDDE Program Manual. Indicators include: number of illicit discharges identified and removed, number and percent of total catchments investigated, dry and wet weather screening and sampling results, and volume of sewage removed.</p> <ul style="list-style-type: none"> • Provide evaluation of IDDE Program annually via annual report. 	During permit term, document annually
3.8	Conduct Sanitary Sewer Overflow (SSO) reporting and inventory	IV.C.3.g.	Work cooperatively with the Auburn Water & Sewerage District to document SSOs within the regulated urbanized area and corrective measures implemented for annual reporting. Maintain database or summary of SSOs through permit term.	Throughout permit term



MCM 4: Construction Site Stormwater Runoff Control (Permit Section IV.C.4.)

Objective: Implement an effective construction stormwater runoff control program and policy that minimizes or eliminates erosion on regulated construction sites within the regulated MS4 area and to ensure that sediments and other pollutants are not transported in stormwater from construction sites and allowed to discharge to a water of the U.S. through the MS4.

BMP ID #	BMP Description	Permit Section Reference	Measurable Goal(s)	Deadline(s)
4.1	Ensure construction stormwater runoff control ordinances and procedures are consistent with MS4 General Permit	IV.C.4.a.	<p>Review City Ordinances to ensure that site development applicants meet Maine Construction General Permit and Chapter 500 Stormwater Management Law Permit obligations.</p> <ul style="list-style-type: none"> Continue to implement an effective construction stormwater runoff control program. Continue to require construction site operators, performing land disturbance activities that exceed one acre (or common plan of development greater than one acre), to implement an erosion and sediment control program consistent with the Construction General Permit and Stormwater Management Law Permit. 	Annually
4.2	Review and refine written construction site stormwater runoff control program procedures	IV.C.4.a.ii & iii. & iv.	<p>Review and refine written Land Development Program Manual (previously Construction Site Erosion and Sediment Control Manual).</p> <ul style="list-style-type: none"> Include references to local ordinance and regulations (as appropriate). Include procedures and workflow for site plan review, pre-construction review, receipt and consideration of information submitted by the public, inspections, responsible parties, and data tracking. Include procedures for enforcement of sediment and erosion control measures. 	Annually
4.3	Track, inspect, and document applicable construction projects	IV.C.4.a. v.	<p>Review and update written procedures for site inspection and enforcement of erosion and sediment control measures as needed. Track the number of site plan reviews, site inspections, and enforcement actions and include in annual report.</p>	Throughout permit term, annually



MCM 5: Post-Construction Stormwater Management in New Development and Redevelopment (Permit Section IV.C.5.)

Objective: Implement and manage a local program and policy to reduce the discharge of pollutants found in stormwater through the retention, detention, and treatment of stormwater on regulated new or redevelopment sites within the regulated MS4 area.

BMP ID #	BMP Description	Permit Section Reference	Measurable Goal(s)	Deadline(s)
5.1	Update local ordinance on stormwater management in new & redevelopment	IV.C.5.b.i. & ii.	<p>Review and update the Post Construction Stormwater Management Ordinance or other regulatory mechanism (as needed).</p> <ul style="list-style-type: none"> • Development draft low impact development ordinance to submit to MaineDEP for review by September 1, 2022. • Require that the owner or operator of a post construction BMP provide an annual report, completed by a qualified inspector, documenting that all onsite BMPs are adequately maintained and functioning as intended. • Require that if a post construction BMP requires maintenance, the owner or operator must provide a record of the deficiency and corrective action(s) taken in no less than 60 days following the date the deficiency was identified. Require that, if 60 days is not feasible, then the City may establish an expeditious schedule to complete the maintenance and establish a record of the deficiency and corrective action(s) taken. 	End of PY2
5.2	Implement procedure for notifying site developers to consider Low Impact Development techniques	IV.C.5.a.i.	<p>Update written Land Development Program Manual to be inclusive of all post-construction program procedures.</p> <ul style="list-style-type: none"> • Document procedures and workflow for site plan review, inspections, responsible parties, and facility tracking. • Include references to Ordinance and regulations (as applicable). • Include procedure for notifying site developers to consider Low Impact Development techniques. 	Annually
5.3	Track and document post construction BMP inspection and maintenance	IV.C.5.	Track and record the number of post construction BMPs, annual inspection reports submitted for each, and documentation of any required maintenance and subsequent corrective action. Include in annual report. Inspect a percentage of private facilities each year.	Throughout permit term, annually



MCM 6: Pollution Prevention and Good Housekeeping in Municipal Operations (Permit Section IV.C.6.)

Objective: Implement a Pollution Prevention & Good Housekeeping Program for municipal operations to prevent or reduce pollutants in runoff from all municipal operations and municipal facilities located in the regulated MS4 area.

BMP ID #	BMP Description	Permit Section Reference	Measurable Goal(s)	Deadline(s)
6.1	Update Stormwater Pollution Prevention Plan (SWPPP) for public works facilities, transfer stations, and school bus maintenance facilities	IV.C.6.d.	Update SWPPP (and Spill Prevention, Control, and Countermeasure (SPCC), as needed) for the public works facility and school bus maintenance facility. SWPPP shall include the elements listed in IV.C.6.d. Keep all records associated with the development and implementation of the SWPPP. Keep a copy of the SWPPP onsite at all times.	Prior to effective date
6.2	Conduct site inspection procedures consistent with SWPPP for public works facilities, transfer stations, and school bus maintenance facilities	IV.C.6.d.6. & 7.	Inspect all areas exposed to stormwater, areas identified in the SWPPP that are potential pollutant sources, areas where spills and leaks have occurred in the past three years, discharge points and all stormwater control measures at each facility with a SWPPP at least once per calendar quarter and report findings in annual report.	Once per quarter, document annually
6.3	Update Operations & Maintenance (O&M) Program documentation	IV.C.6.b. & c.	Review and update written O&M procedures per section IV.C.6. of the permit. <ul style="list-style-type: none">• Update Pollution Prevention Operation and Maintenance Manual as needed; inclusive of all City facilities within the regulated MS4 area, drainage system operations activities, and inspection obligations. The Manual shall include the following:<ul style="list-style-type: none">- Municipal Facilities/Equipment Inventory.- Municipal Infrastructure Maintenance: Street Sweeping and Catch Basin Cleaning SOPs.- Prioritized schedule for repairing or upgrading conveyances, structures, and outfalls of the regulated MS4 area.	Prior to effective date



BMP ID #	BMP Description	Permit Section Reference	Measurable Goal(s)	Deadline(s)
6.4	Implement street sweeping program	IV.C.6.b.iii.	Implement street sweeping program outlined in the Pollution Prevention Operation and Maintenance Manual. At a minimum, sweep all paved streets and municipally owned parking lots annually, soon after snowmelt. Document street sweeping activities and include in annual report.	Throughout permit term, annually
6.5	Implement catch basin cleaning program	IV.C.6.b.iv.	Implement catch basin cleaning program outlined in the Pollution Prevention Operation and Maintenance Manual. At a minimum, inspect all municipally owned catchbasins biennially to ensure that no catchbasin sumps exceed 50% full. If two consecutive inspections of a given catchbasin show excess accumulation, then that catchbasin must be inspected and cleaned annually until two consecutive inspections find less than 25% accumulation. Document catch basin cleaning activities and include in annual report.	Throughout permit term, annually
6.6	Conduct employee training program consistent with SWPPP	IV.C.6.d.2.h.	Conduct employee training consistent with SWPPP and Pollution Prevention Operation and Maintenance Manual.	Throughout permit term, annually



1.2 IMPAIRED WATERS

Discharges to waterbodies with impairments and an approved Total Maximum Daily Load (TMDL) have additional requirements in part IV.E. of the 2022 MS4 General Permit. The City of Auburn MS4 discharges to waterbodies that are considered impaired, according to ME DEP's 2018/2020/2022 Integrated List of Waters, including waterbodies with an approved TMDL. For these waterbodies, Auburn will address compliance with the TMDL waste load allocations (WLA) as outlined below:

- For the areas that discharge to waters that are impaired by Total Phosphorus, bacteria/pathogens, and/or Dissolved Oxygen (Gulf Island Pond and Logan Brook):
 - **On or before September 1, 2022** - Supplement the Residential and Business/Commercial/Institutional public education and outreach program with an annual timed message on specific topics, noting any existing regulations where appropriate.
 - March/April: disposal of grass clippings and use of slow-release and phosphorus-free fertilizers
 - June/July: proper management of pet waste
 - August/September/October: proper disposal of leaf litter
 - **On or before September 1, 2022** - Establish housekeeping procedures to manage grass cuttings and leaf litter on permittee property.
 - **On or before September 1, 2022** - Increase street sweeping frequencies on all municipally owned streets and parking lots to a minimum of 2x per year (one time each spring and fall).
 - **On or before September 1, 2022** - Implement a fall leaf litter clean program that reduces leaf litter related nutrient loads.
- For the areas that discharge to waters that are impaired by bacteria or pathogens (Logan Brook, Androscoggin River, Little Androscoggin River):
 - **On or before September 1, 2022** - Supplement residential public education and outreach program with an annual, web-based message encouraging the proper management of pet waste.
 - **On or before September 1, 2022** - Designate catchments draining to any waterbody impaired for bacteria or pathogens as either Problem or High Priority catchments in implementation of the IDDE program.
- For the areas that discharge to waters that are impaired by total suspended solids (Gulf Island Pond):
 - **On or before September 1, 2022** - Prioritize inspection of catch basins to ensure that no catch basin sump exceeds 50% full.
 - **On or before April 1, 2023** - Increase annual street sweeping on municipally owned or operated facilities to target areas with high potential pollutant load.
- For the areas that discharge to waters that are impaired by impervious cover (Logan Brook):
 - Consistent with the requirements of MCM 4 and MCM 5, continue to refine regulatory policies that minimize the impact of development and redevelopment on waters in Auburn. With existing policies, it is anticipated that there will be reductions in the impact of impervious cover through redevelopment over time. The BMPs to be implemented in the Logan Brook Watershed per the permittee-specific ME DEP Order are:



- **On or before July 1, 2022** - Initiate development of a targeted watershed planning effort.
- **On or before July 1, 2024** - Implement an outreach and educational program with Logan Brook commercial landowners on environmentally appropriate winter salt management.
- **Beginning July 1, 2022** - Consult with DEP watershed management program on a targeted water quality monitoring program and an in-stream habitat evaluation as a part of planning effort outlined above.
- **On or before July 1, 2025** – Complete the Logan Brook watershed plan.
- **Beginning July 1, 2025** – Commence annual monitoring for Logan Brook in accordance with the final in-stream habitat evaluation.

Results of implementation of the practices in the Impaired Waters section above must be documented in the annual report required by Special Condition G, Annual Report Compliance, of MS4 GP #MER041000. A list of all impaired waters that are within the City of Auburn and their impairment causes is provided in Table 1-1 below. A map showing ME DEP’s 2018/2020/2022 Integrated Waters for the City of Auburn is provided in *Appendix B* of this SWMP.

Table 1-1: Impaired Waters within Auburn, ME (Based on Approved 2018/2020/2022 Integrated List)

Waterbody	ID	Class	Impairment	Category	TMDL Defined Issue	Waste Load Allocation
Logan Brook ¹	ME0104000208_413R04	B	Dissolved Oxygen	4-A TMDLs Completed Impaired Use Other than Mercury	Impervious Cover	8% Effective Impervious Cover
			Habitat Assessment		Bacteria	236 <i>e. Coli</i> /100 ml; 64 <i>e. Coli</i> /100 ml ²
			<i>e. Coli</i>			
Upper Androscoggin River (Gulf Island Pond)	ME0104000208_424R_01	C	Dioxin	4-B TMDLs Completed ³ Pollution Control Requirements Reasonably Expected to Result in Attainment (2020)	BOD	10,440 ppd; 9,444 ppd ⁴
			Algae Blooms		Oxygen Injection	30,000 ppd Upper Narrows; 150,000 ppd Lower Narrows
			BOD		Phosphorus	77.7 ppd Total P 0.3 ppd Ortho P ⁵
			Dissolved Oxygen		TSS	47,907 ppd annually
			Phosphorus			
			TSS			
			Polychlorinated biphenyls	5-D Impaired by Legacy Pollutants	No	--



Waterbody	ID	Class	Impairment	Category	TMDL Defined Issue	Waste Load Allocation
Androscoggin River	ME0104000210_425R_02	C	<i>e. Coli</i>	4-A TMDL Completed Impaired Use Other than Mercury	Statewide Bacteria	236 <i>e. Coli</i> /100 ml 126 <i>e. Coli</i> /100 ml ⁶
Middle Androscoggin River	ME0104000208_424R	C	Dioxin	4-B TMDL Completed Pollution Control Requirements Reasonably Expected to Result in Attainment (2020)	No	No detection at 10 pg/L detection limit
			Polychlorinated biphenyls	5-D Impaired by Legacy Pollutants	No	--
Lower Androscoggin River (Little Androscoggin River to Pejepscot Dam)	ME0104000210_425R_01	C	Dioxin	4-B TMDL Completed Pollution Control Requirements Reasonably Expected to Result in Attainment (2020)	No	No detection at 10 pg/L detection limit
			Polychlorinated biphenyls	5-D Impaired by Legacy Pollutants	No	--
Little Androscoggin River	ME0104000209_417R_02	C	<i>e. Coli</i>	4-A TMDL Completed Impaired Use Other than Mercury	Statewide Bacteria	236 <i>e. Coli</i> /100 ml 126 <i>e. Coli</i> /100 ml ⁶
Penley Brook⁷	ME0104000210_413R02	B	Nitrogen	4-A TMDL Completed Impaired Use Other than Mercury	Statewide NPS	5.2 kg/ha-year



Waterbody	ID	Class	Impairment	Category	TMDL Defined Issue	Waste Load Allocation
Gully Brook (Auburn)	ME0104000208_413R07	B	<i>e. Coli</i>	4-A TMDL Completed Impaired Use Other than Mercury	Statewide Bacteria	236 <i>e. Coli</i> /100 ml 126 <i>e. Coli</i> /100 ml ⁶
			Benthic- Macroinvertebrate Bioassessments	5-A TMDL Required Impaired by Pollutants Other Than Those Listed in 5-B Through 5-D	No	--
			Periphyton (Aufwuchs) Indicator Bioassessment Dissolved Oxygen			
Bobbin Mill Brook	ME0104000208_413R08	B	Benthic- Macroinvertebrate Bioassessments	3 Insufficient Data	No	--

1. The Logan Brook Watershed is classified as an Urban Impaired Stream watershed. From the 2022 MS4 General Permit: "If the waterbody to which a point source covered by this GP discharges is an 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 permit modification, 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."
2. Between May 15th and September 30th, the number of *Escherichia coli* bacteria in Stormwater (NPDES) sources to [Class B] waters may not exceed a geometric mean of 64 CFU per 100 milliliters over a 90-day interval or 236 CFU per 100 milliliters in more than 10% of the samples in any 90-day interval.
3. Non-point sources are referenced in the Load Allocation, but DEP explicitly states (Pg. 28 of 2005 TMDL) that control on non-point is not likely feasible.
4. Between June 1st and September 30th, the 30-day and 7-day average CBOD load to the entrance of Gulf Island Pond from Non-Point Sources may not exceed 10,440 lb/day and 9,444 lb/day, respectively.
5. Between June 1st and September 30th, the 30-day average Total Phosphorus and Ortho-Phosphorus loads to the entrance of Gulf Island Pond from Non-Point Sources may not exceed 77.7 lb/day and 0.3 lb/day, respectively.
6. Between May 15th and September 30th, the number of *Escherichia coli* bacteria in Stormwater (NPDES) sources to [Class C] water may not exceed a geometric mean of 126 CFU per 100 milliliters over a 90-day interval or 236 CFU per 100 milliliters in more than 10% of the samples in any 90-day interval.



7. Penley Brook is outside the urbanized area regulated under the Maine MS4 General Permit in the City of Auburn.



1.3 ANNUAL PROGRAM SELF-EVALUATION, RECORD KEEPING & ANNUAL REPORTING

Covered entities are required to collect and report information about the development and implementation of their SWMP. The City of Auburn conducts annual evaluations of its program compliance, the appropriateness of its identified Best Management Practices (BMPs), and progress towards achieving its identified measurable goals, which include reducing the discharge of pollutants to the maximum extent practicable (MEP).

The City of Auburn will keep records required by the 2022 MS4 General Permit for at least three (3) years after its expiration. Records include but are not limited to: information used in the development of any written (hardcopy or electronic) program required by the MS4 General Permit, any monitoring results, copies of reports, records of screening, follow-up and elimination of illicit discharges; maintenance records; inspection records; and data used in the development of the Notice of Intent (NOI), SWMP, SWPPP, and annual reports. Records will be available for public observation as requested. Records will be submitted to the ME DEP as requested.

Annual reports are due to the ME DEP each year by September 15th. The annual reports shall include the following content for the reporting period:

- Status of compliance with General Permit and permittee specific DEP Order conditions;
- An assessment/evaluation of:
 - The effectiveness of the SWMP
 - The appropriateness of the identified BMPs
 - Progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP
 - The identified measurable goals for each of the MCMs
- A summary of all information collected and analyzed, including outfall screening and sampling results;
- Any change in identified BMPs or measurable goals and justification for those changes; and
- A description of the activities, progress, and accomplishments for each MCM, including:
 - The status of education and outreach efforts
 - The status of public involvement activities
 - The status of stormwater mapping efforts
 - The number of visual dry weather inspections performed
 - The number of inaccessible and new outfalls
 - The number of dry weather flow sampling events and laboratory results
 - The number of detected illicit discharges
 - The number of detected illicit connections
 - The number of illicit discharges that were eliminated
 - Construction site inspections and 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 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
 - The types of trainings presented, the number of municipal and contract staff that received training, the length of the training, and training content delivered
 - Revisions to the SWPPP procedures and/or changes in municipal operations



1.4 RESPONSIBLE PARTIES FOR STORMWATER PROGRAM IMPLEMENTATION

Title/ Position of Responsible Person	Name of Responsible Person	Role/Program Element(s)
Director of Public Works	Dan Goyette	MCM 2 (Public Participation)
City Engineer	Tony Beaulieu	MCM 3, 4, 5 (IDDE Programs, Technical Review of Site Plans)
Director of Communications & Community Engagement	Liz Allen	MCM 1 (Public Education and Outreach Coordination)
Director Economic & Community Development	Eric Cousens	MCM 4, 5 (Administration and Enforcement of Stormwater Control Ordinances)
Deputy Director of Public Works	Scott Holland	MCM 6 (Pollution Prevention and Good Housekeeping and Public Works and School Bus Maintenance Facility SWPPP)
Geospatial Database Manager	Rosemary Mosher	MCM 3 (Mapping Updates)

In addition to the parties above, the City of Auburn partners with both the Androscoggin Valley Soil and Water Conservation District and also the Cumberland County Soil and Water Conservation District on implementation of specific components of MCM 1 and MCM 2. The City cooperates with the Auburn Water & Sewerage District on MCM 1 and MCM 3 implementation. As needed, the City communicates with Maine Department of Transportation and also the Maine Turnpike Authority to coordinate on mapping measures and IDDE (MCM 3). City staff also periodically meet with and cooperate with the Androscoggin Valley Stormwater Working Group (Lisbon, Auburn, Sabattus and Lewiston).



2. PROGRAM DOCUMENTS: PLANS, PROCEDURES, INVENTORIES, AND MAPS

The permit requires certain documents to be included in the SWMP. These documents will be developed consistent with the schedule outlined in Section 1.1. This Section provides information on where these documents can be accessed. Some of these documents have been appended to this SWMP, while others are provided in a location external to the SWMP due to size or complexity. Hard copies of the following documents can be found at the Public Works Department, unless otherwise noted below.

2.1 IDDE PROGRAM

2.1.1 IDDE Program Manual

The City of Auburn has developed a written IDDE Program Manual consistent with the requirements of part IV.C.3.a. & b. of the MS4 General Permit. The IDDE Program Manual includes:

- Responsible parties
- Regulatory authority
- Dry weather outfall screening and sampling procedures
- Interconnection screening procedures
- Initial assessment and priority ranking of outfalls/interconnections
- Catchment investigation procedures
- Enforcement procedures
- Training resources and modules

The IDDE Program Manual can be accessed at the Public Works Department.

2.1.2 Separate Storm Sewer System Map

The City of Auburn has developed a Separate Stormwater Sewer System Map consistent with the requirements of part IV.C.3.d. of the MS4 General Permit. The map provided in *Appendix A* includes the following information:

- Outfalls and Stormwater Drainage System
- Regulated urbanized area

The map will be updated annually.

2.1.3 SSO Inventory

In accordance with Part IV.C.3.g, the City will work cooperatively with the Auburn Water & Sewerage District to document SSOs within the regulated urbanized area and



corrective measures implemented for annual reporting. The City will maintain a database or summary of these SSOs throughout the permit term.

2.2 CONSTRUCTION AND POST-CONSTRUCTION STORMWATER MANAGEMENT PROGRAM

2.2.1 Site Inspections and E&SC Procedures

Consistent with the requirements of part IV.C.4.a of the MS4 General Permit, the City of Auburn has developed written procedures for site inspections and enforcement of sediment and erosion control procedures. These procedures are detailed in the City's Land Development Program Manual, which can be accessed at the Public Works Department.

2.2.2 New Development/Redevelopment Ordinance

Consistent with the requirements of part IV.C.5.a. of the MS4 General Permit, the City of Auburn has developed a regulatory mechanism to require site development applicants to consider Low Impact Development and to ensure long-term operation and maintenance of post-construction stormwater BMPs. These procedures are found in the City Ordinances and procedures are detailed in the City's Land Development Program Manual, which can be accessed at the Public Works Department.

2.3 MUNICIPAL FACILITIES AND OPERATIONS PROGRAMS

2.3.1 Pollution Prevention Operation and Maintenance Manual

The Androscoggin Valley Stormwater Working Group (AVSWG) has developed a Pollution Prevention Operation and Maintenance Manual consistent with the requirements of part IV.C.6. of the MS4 General Permit. The objectives of the Pollution Prevention Operation and Maintenance Manual are to provide a general guidance document to detail ways to reduce stormwater-transported pollution during typical activities on municipally owned properties, to establish procedures for MS4 infrastructure maintenance that will help reduce the discharge of pollutants from municipally owned facilities, and to promote behavior that will improve water quality in the City of Auburn. The manual includes general best practices for managing the following assets:

- Parks and open space
- Vehicles and equipment
- Buildings and facilities

The City additionally maintains the following written Operations and Maintenance (O&M) Standard Operating Procedures (SOPs):

- Winter road maintenance procedures targeting minimal use and proper storage of sodium chloride and other salts, which can be found in the Pollution Prevention Operation and Maintenance Manual
- A Street Sweeping Plan outlining the Public Works Department's street sweeping program rationale and SOPs
- Stormwater treatment structure inspection and maintenance and reporting procedures



The Pollution Prevention Operation and Maintenance Manual, as well as all other written SOPs, can be accessed at the Public Works Department.

2.3.2 Stormwater Pollution Prevention Plans

The City has developed written Stormwater Pollution Prevention Plans (SWPPPs) for the Public Works Garage and School Bus Maintenance Yard consistent with the requirements of part IV.C.6.c. & d. of the MS4 General Permit. The SWPPPs include:

- Pollution and prevention team
- Description of the facility and identification of potential pollutant sources
- Identification of stormwater controls
- Material exposure prevention, good housekeeping, preventative maintenance, spill prevention and response, erosion and sediment control, management of runoff, salt storage pile or salt-containing pile management, employee training, and maintenance of control measure practices

The SWPPPs can be accessed at the Public Works Department.

2.4 EDUCATION AND OUTREACH PLAN

The City has developed a written Municipal Awareness and Behavior Change Plans outlining the City's Education and Outreach program consistent with the requirements of part IV.C.1 of the MS4 General Permit.

The Education and Outreach Plans can be accessed at the Public Works Department.

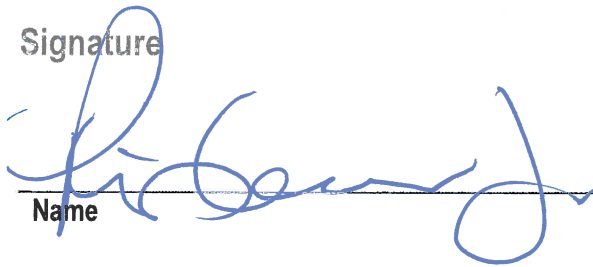


CERTIFICATION

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

Signature

Date


Name

7/12/22

7/12/22



Appendices



APPENDIX A: SEPARATE STORM SEWER MAP



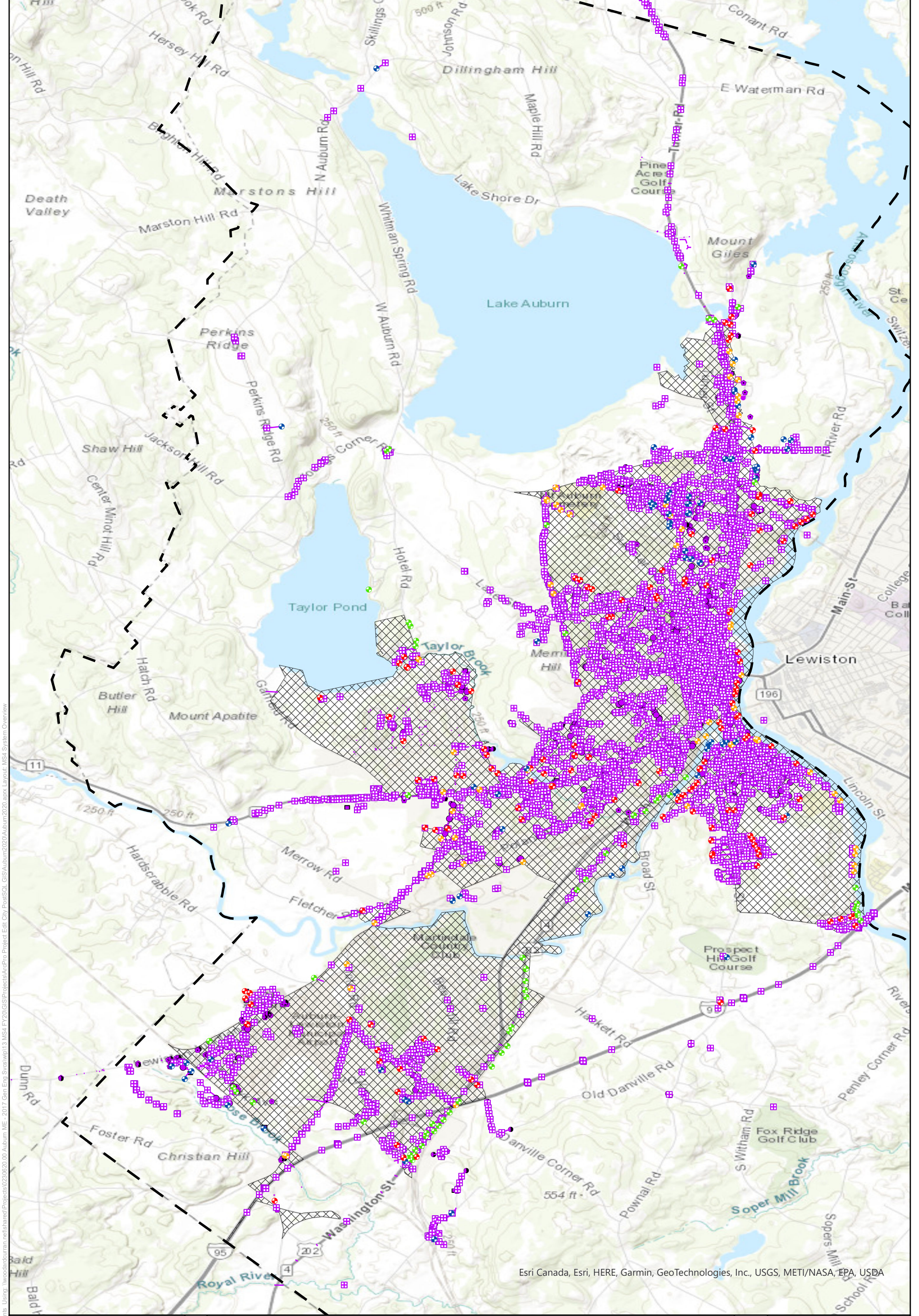


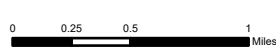
Figure Exported: 6/28/2022 8:29:00 AM Using: \\woodardcurran.net\shared\Projects\0233981\00 Auburn ME - 2017 Gen Eng Sves\wp13 MS4 FY20\GIS\Projects\AcPro Project Edit City PostSQL GIS\Auburn\2020\Auburn20.aprx Layout: MS4 System Overview

Stormwater Collection System Overview

Auburn, ME

Legend

- | | | | |
|--------------------|----------------------|-----------------|-------------------|
| ● Drainage Manhole | ■ Drain Pipe Opening | ■ Other | ● Private |
| ■ CatchBasin | ● Culvert Inlet | ▲ Field Inlet | ● State |
| ● Other | ● Culvert Outlet | Outfalls | ▨ Urbanized Area |
| — Drain Pipe | ● Cleanout | ● City | ▭ Auburn Boundary |
| | ● Drain Outlet | ● Urban Compact | |



Project #: 0233981.01
Map Created: June 2022

Esri Canada, Esri, HERE, Garmin, GeoTechnologies, Inc., USGS, METI/NASA, EPA, USDA

Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the users' sole risk. **Data Sources:**



APPENDIX B: IMPAIRED WATERS AND SPECIAL RESOURCE WATERS

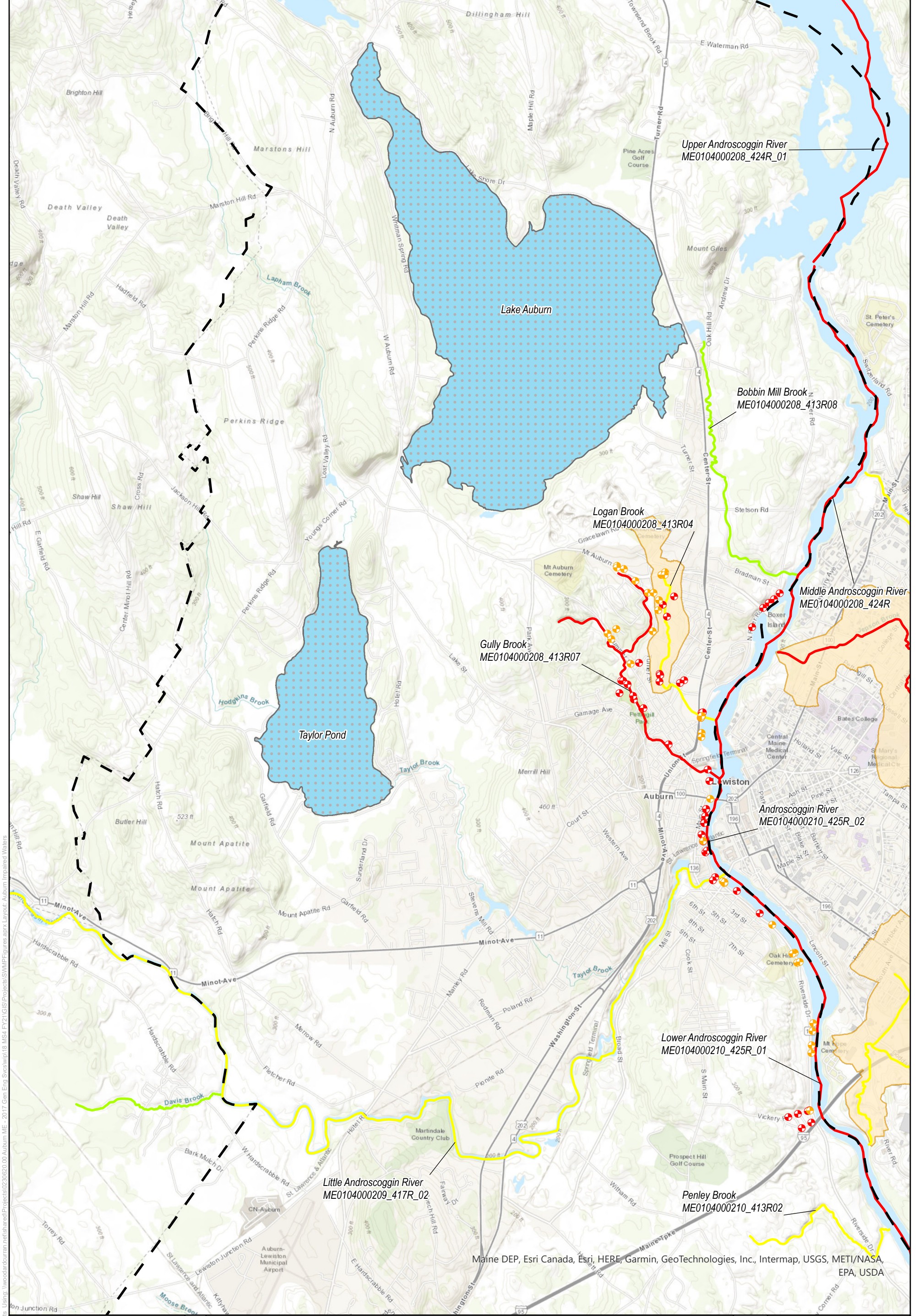


Figure Exported: 7/8/2022, By: imonts, Using: \\woodardcurran.net\shared\Projects\0230020000\Auburn ME - 2017 Gen Eng Sacs\wip\18 MS4 FY21\GIS\Projects\SWMP\Figures.aprx, Layout: Auburn Impaired Waters

Auburn's Water Resources

Auburn, ME

Legend	2022 Integrated List Waters	Outfalls with Direct Discharge to Impaired Waters	
	2 (green line)	4A (yellow line)	City (red circle with cross)
	3 (light green line)	5 (red line)	State Compact (orange circle with cross)
	Chapter 502 At Risk Lakes (blue dotted)	Chapter 502 Urban Impaired Stream Watersheds (orange shaded)	Auburn Boundary (dashed black line)

0 0.25 0.5 1 Miles

North Arrow

Project #: 0233981.01
Map Created: June 2022

Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the users' sole risk. **Data Sources:**



APPENDIX C: DEFINITIONS



Definitions, Abbreviations and Acronyms

Applicant - Means a municipality which files an NOI pursuant to Part III of the 2022 MS4 General Permit.

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.

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.

Commissioner - Means the Commissioner of the Maine Department of Environmental Protection.

Common Plan of Development or Sale - Means a subdivision under municipal law as determined by the municipality where the subdivision is located.

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.

Construction Activity - Means:

- 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
- 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.

Department (DEP) - Means the State of Maine Department of Environmental Protection.

Direct Discharge - The definition of "Direct Discharge" in the 2022 MS4 General Permit 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."

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 the 2022 MS4 General Permit, located within the permittee's UA and not including groundwater.)

Discharge Point – For the purposes of the 2022 MS4 General 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.



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.

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.

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.

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.

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.

Education Outreach to change behavior – Means to promote and reinforce desirable behaviors designed to reduce stormwater pollution.

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.

Illicit Discharge - Means any discharge to a regulated MS4 system that is not composed entirely of stormwater other than: discharges authorized pursuant to another permit issued pursuant to 38 M.R.S. §413; uncontaminated groundwater; water from a natural resource [such as a wetland]; or other Allowable Non-Stormwater Discharges identified in Part IV(C)(3)(h) of the 2022 MS4 General Permit.

Impaired Waterbody - Means a waterbody that is not attaining water quality criteria or standards, as determined by the Department.

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.



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.

Message – Information distributed to a specific target audience.

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.

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.

Notice of Intent (NOI) - Means a notification of intent to seek coverage under the 2022 MS4 General Permit 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 the 2022 MS4 General Permit and under a permittee specific DEP Order.

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 the 2022 MS4 General Permit, a discharge to a location not defined as a water of the state is not considered an outfall.

Outreach to raise awareness – Means to introduce information that may be new to or not well understood by a target audience.

Permittee – Means a municipality that owns or operates the storm sewer system authorized under the 2022 MS4 General Permit.

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.

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 the 2022 MS4 General Permit.

Point source - See "**Direct Discharge**". For the purposes of the 2022 MS4 General Permit, the definitions of "Point source" and "Direct Discharge" are identical.

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.



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 the 2022 MS4 General Permit.

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).

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.

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.).

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.

Stormwater Pollution Prevention Plan (SWPPP) - Means a written plan developed and implemented for select municipal operations to reduce or eliminate pollutants as described in the 2022 MS4 General Permit.

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.

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 the 2022 MS4 General Permit.

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.

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.

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.



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.



APPENDIX D: REVISION LOG



APPENDIX E: EDUCATION AND OUTREACH TOOLS, LEVELS OF EFFORT, AND EFFECTIVENESS BENCHMARKS



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

Table 1. Tools for Measurable Goal 1.1a. (People 25 to 34 in the AVSWG Region)

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



Table 2. Tools for Measurable Goal 1.1b. (Municipal Leadership in Auburn)

Outreach Tool	Minimum Level of Effort	Effectiveness Benchmark
Factsheet	1 factsheet	Total number of factsheets distributed
Email Newsletter	4 email newsletters	Number of people reached with email Number of interactions with email (e.g., link clicks)
Municipal website content	Annual updates to website stormwater content to feature Auburn's environmentally sensitive property management	Number of visitors to stormwater webpage(s) and promotion of employee conducting environmentally sensitive maintenance
Webinar/Workshop	7 hours of training offered (multiple webinars/workshops may be offered to reach 7 hours)	Number of workshop attendees
Outreach partnership with local organization	3 content shares by partner organization	Number of people reached
Other DEP-approved tools	Minimum level of effort will be determined based on the tool	Effectiveness benchmark will be determined based on the tool

Table 3. Tools for Measurable Goal 1.2a. (Property Owners Ages 35 to 55 Within the AVSWG Region)

Outreach Tool	Minimum Level of Effort	Effectiveness Benchmark
Targeted Social Media Post (each platform counts as separate tool)	12 posts	Amount of post engagement (e.g., reactions, comments, shares, etc.)
Targeted Social Media Ad (each platform counts as separate tool)	Ad(s) run 90 days (multiple ads may be run for shorter durations to total 90 days)	Amount of ad engagement (e.g., reactions, comments, shares, link clicks, etc.) Number of people reached with ad
Targeted Social Media Video (each platform counts as separate tool)	3 videos	Amount of video engagement (e.g., views, reactions, comments, shares, etc.)



Outreach Tool	Minimum Level of Effort	Effectiveness Benchmark
Targeted mailing	Targeted mailing for properties adjacent to reconstructed roadways	Total number of letters distributed
Targeted 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)
Catchbasin stenciling	Implementation of catchbasin stenciling on reconstructed roadways	Number of catchbasins/neighborhoods stenciled
Public meeting	Public workshop for property owners adjacent to reconstructed roadways	Number of attendees
Press release	Develop press release for catchbasin stenciling events	Development and distribution of press release
Outreach partnership with local organization	3 content shares by partner organization	Number of people reached
Item with branding/messaging	1 item with branding/messaging	Total number of items distributed
Other DEP-approved tools	Minimum level of effort will be determined based on the tool	Effectiveness benchmark will be determined based on the tool

Table 4. Tools for Measurable Goal 1.2b. (Municipal property managers and staff within Auburn)

Outreach Tool	Minimum Level of Effort	Effectiveness Benchmark
Factsheet	1 factsheet	Total number of factsheets distributed
Email Newsletter	4 email newsletters	Number of people reached with email Number of interactions with email (e.g., link clicks)
Municipal website content	Annual updates to website stormwater content to feature Auburn's environmentally sensitive property management	Number of visitors to stormwater webpage(s) and promotion of employee conducting environmentally sensitive maintenance



Webinar/Workshop	7 hours of training offered (multiple webinars/workshops may be offered to reach 7 hours)	Number of workshop attendees
Outreach partnership with local organization	3 content shares by partner organization	Number of people reached
Other DEP-approved tools	Minimum level of effort will be determined based on the tool	Effectiveness benchmark will be determined based on the tool
