Nonpoint Source Management Program 2023 Annual Report

June 2024

China Lake (China, Vassalboro)

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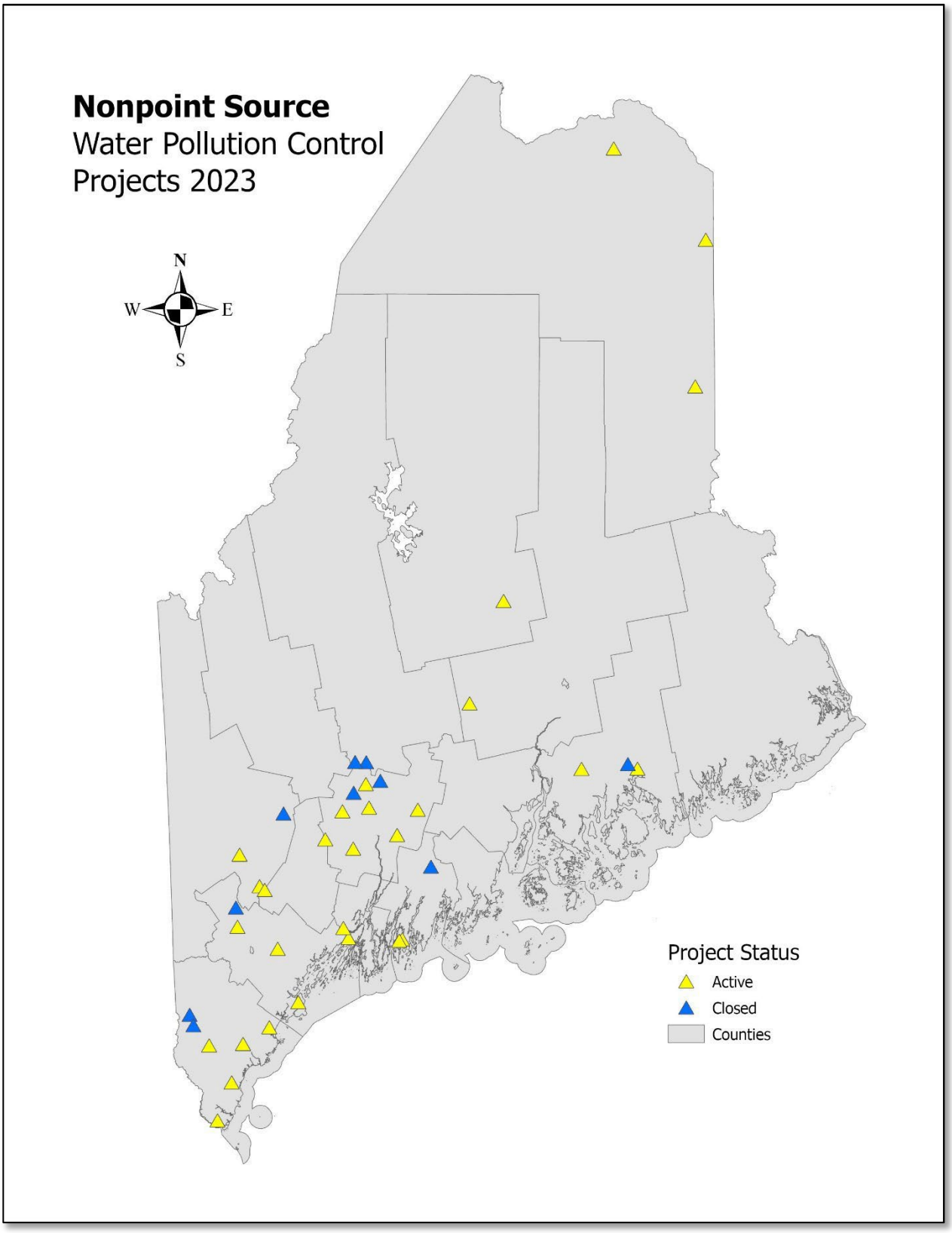
NPS Water Pollution Control Projects Active in 2023



I. Introduction

Nonpoint source pollution impacts many of Maine's lakes, rivers, streams, and coastal waters. When it rains or snow melts, water running off our driveways, parking lots, yards, farm fields, forestry operations, and industrial sites picks up and carries hitchhiking pollutants into our waters. Pollutants include sediment from erosion; nutrients from fertilizers or animal waste; bacteria from animal waste and failing septic systems; and toxics such as road salt or spilled petroleum products.

Maine DEP coordinates the State of Maine Nonpoint Source Pollution Program (38 MSRA 410) to achieve widespread use of state-agency "best management practice guidelines" to prevent NPS pollution. Since 1990, EPA has awarded funds under CWA Section 319(h) to help states and tribes address the most pressing NPS pollution problems. Section 319 funds that are provided by EPA to the State help support a significant portion of Maine's NPS Program. NPS Program services are guided by the *Maine Nonpoint Source Management Program Plan 2020-2024.*

DEP coordinates with other State agencies on statewide programs to reduce NPS pollution. CWA Sections 604(b) and 319 funds are used to provide grants for watershed projects to help local communities identify water pollution sources in watersheds and restore or protect lakes, streams, or coastal waters.

This report summarizes the Nonpoint Source Program's activities and accomplishments in 2023. Each year, DEP prepares this report to inform the public and the EPA about Maine's progress controlling NPS water pollution and fulfill annual reporting requirements of Section 319(h) of the Federal CWA.

II. 2023 Highlights – Maine NPS Management Program

A. Grant Awards - EPA awarded $1,995,800 FFY 2023 Section 319 Clean Water Act funds and $239,000 FFY 2023 Section 604b Clean Water Act funds to the DEP. Funds were used to fuel programs designed to prevent and reduce NPS pollution problems. Eight new watershed implementation grants totaling $887,113 and three new watershed planning grants totaling $149,271 were awarded to municipalities, Soil and Water Conservation Districts, and watershed groups.

B. Projects Closed Out - Ten NPS watershed projects funded through the NPS grants program in previous years were successfully completed. DEP provided technical assistance and granted $750,748 of Federal CWA Section 319 and 604(b) funds for these projects. Grantees, partners, and landowners contributed matching funds or services valued at $691,838.

- BMPs were installed to reduce polluted runoff in the following nine watersheds, thereby reducing pollutant loading to these waters by an estimated 746.64 pounds of phosphorus, 1087.18 pounds of nitrogen, and 757.77 tons of sediment per year[1].

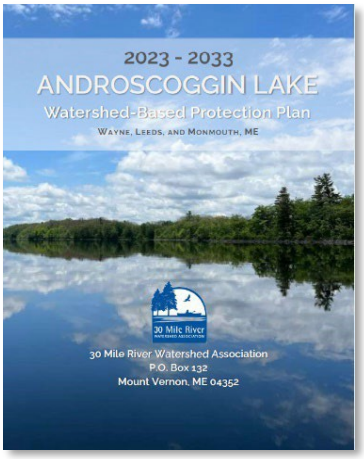
  - Damariscotta Lake
  - Great Pond
  - Lake Anasagunticook
  - Long Pond (Parsonsfield)
  - McGrath Pond-Salmon Lake
  - Mousam Lake
  - North Pond (Smithfield)[2]
  - Sebago Lake
  - Square Pond

[1] Pollutant load reduction estimates are based on approved methods and assume proper installation and maintenance of Best Management Practices. (See Section III.D.)

[2] North Pond (Smithfield) completed an updated from a WBPP to a WBMP, and an implementation project. Therefore, there were 10 projects completed in 2023, 9 of which were implementation projects and one planning project.

- A 9-element watershed-based protection plan was completed for North Pond (Smithfield). A plan provides assessment and management information and describes actions needed to restore NPS- impaired water bodies or to protect water bodies threatened by NPS pollution.

C. **Lake Watershed-based Protection Plans** - DEP and EPA reviewed and accepted one lake watershed-based protection plan in 2023: Androscoggin Lake. The 30 Mile River Watershed Association along with the Androscoggin Lake Improvement Corporation developed this plan and carried out the supporting watershed survey with local resources and funding.



D. **Maine DEP's Clean Water State Revolving Fund (CWSRF)** - The CWSRF program helped fund just over $8 million in NPS projects in 2023 via the linked-deposit forestry program, which makes below-market-rate financing available for forestry BMPs and environmentally friendly logging equipment.

E. **Nonpoint Source Training Center (NPSTC)** - The NPSTC trained 631 individuals through online and in-person classes in 2023, bringing the number of certified contractors to 2,928.

F. **L.D. 164: An Act Regarding the Funding of Lake Water Quality Restoration and Protection Projects** – The Maine Legislature passed new legislation which provided funding for Section 480-N of the Natural Resources Protection Act (Lake Water Quality Restoration and Protection Fund). A total of $200,500 was allocated for which the Department will make grants to support alum treatments for impaired lakes.

G. **CWSRF Standalone Stormwater and Nonpoint Source (SW/NPS) Plans** – The Clean Water State Revolving Fund has made $200,000 of planning funds available for Stormwater and Nonpoint Source projects. Up to $50,000 is available for principal forgiveness for eligible projects that provide a 100% match. Eligible projects include:

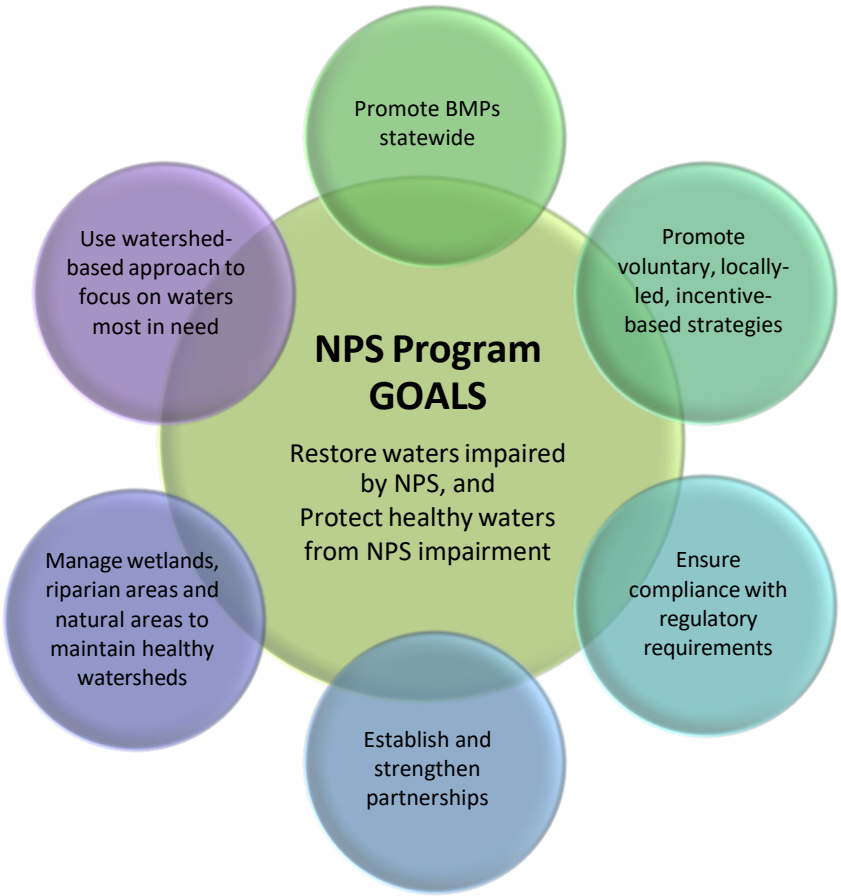
- Stormwater Asset Management Plans
- Stormwater Utility Development Plans
- Watershed Surveys
- Stream Crossing Resilience Surveys
- Stream Geomorphic Assessments
- Chloride Source Control Needs Assessment Planning
- Watershed Management Plan Development
- Watershed Management Plan Updates
- Design of BMPs Prioritized in a Watershed Plan

III. Maine NPS Management Program

A. Overview

The *Maine Nonpoint Source Management Program Plan 2020-2024* establishes program goals and strategies that Maine uses to make progress controlling NPS pollution. The NPS program uses both statewide programs and targeted watershed-based approaches to promote the use of state-agency defined best management practices (BMPs) to prevent water pollution.

DEP administers the NPS Program in coordination with EPA and other federal, state, and local governmental agencies, and non-governmental organizations. Five Maine agencies share responsibility for implementing NPS programs: Departments of Environmental Protection; Agriculture, Conservation, and Forestry; Transportation; Health and Human Services, Division of Environmental Health; and Marine Resources. State agencies conduct programs that promote voluntary use of BMPs and implement State laws or rules that require meeting performance standards to protect water quality.



The NPS plan describes actions State agencies will take over five years to make progress controlling NPS pollution, including 63 five-year objectives with actions and milestones. Outputs or accomplishments in 2023 are summarized in Appendix C. The NPS plan is available at: http://www.maine.gov/dep/land/watershed/nps-program-plan.html

B. Protecting Clean Waters

Maine has significant water quality protection and restoration challenges and limited resources for NPS programs. DEP prioritizes and balances the use of available NPS funds to make progress in both protecting and restoring lakes, streams, and coastal waters. Although considerable resources are focused on restoring impaired waters, DEP also invests in NPS control efforts to protect clean waters that are considered threatened by NPS pollution. Preventing NPS water pollution of waters is far more cost effective than restoring a polluted waterbody.

Protecting Maine's unimpaired waters can be accomplished by local communities with technical and financial assistance from DEP and other partners. Local stewardship is needed for any project, plan, or outreach effort to effectively take hold because residents can increase local involvement in watershed management activities. Fortunately, Maine has many capable and determined municipalities, watershed stewardship groups, and Soil and Water Conservation Districts working to protect watersheds and clean waters.

Developing Plans to Protect Lakes

In 2023, one new lake protection plan (indicated with an * below) was developed by local entities using guidance developed by DEP and EPA, bringing the total number of active lake watershed-based protection plans to 35 through 2023[3]

Lake Watershed-based Protection Plans Accepted by DEP

Abrams Pond (Eastbrook)	Messalonskee Lake (Oakland)
Adams & Knickerbocker Lake (Boothbay)	Mousam Lake (Acton)
Alamoosook Lake (Orland)	North Pond (Buckfield)
Androscoggin Lake (Wayne)*	North Pond (Norway)
Bauneg Beg Lake (Sanford)	North Pond (Smithfield)
Branch Lake (Ellsworth)	Panther Pond (Raymond)
Cobbossee Lake (Manchester)	Parker Pond (Chesterville)
Cold Stream Pond (Enfield)	Pennesseewassee Lake (Norway)
Damariscotta Lake (Jefferson)	Phillips Lake (Dedham)
Ellis Pond (Roxbury)	Sebago Lake & Crooked River (Naples)
Forest Lake (Windham)	Square Pond (Acton)
Georges Pond (Franklin)	Torsey Pond (Readfield)
Great East Lake (Acton)	Trickey Pond (Naples)
Great Pond (Franklin)	Varnum Pond (Wilton)
Hogan & Whitney Ponds (Oxford)	Watchic Lake (Standish)
Lake Anasagunticook (Canton)	Whetstone Pond (Abbott)
Long Pond (Parsonsfield)	Wilson Lake (Wilton)
McGrath Pond & Salmon Lake (Oakland)	

[3] DEP and EPA have accepted 42 plans as of 12/31/2023. (This number includes expired plans, which are more than ten years old and need to be updated.

Implementation Projects to Protect Lakes

DEP allocates Section 319 funds provided by EPA to protect clean waters that are threatened by NPS pollution. In 2023, Section 319 funds helped sustain or start NPS watershed implementation projects in the following 18 lake watersheds:

Adams Pond & Knickerbocker Lake (Boothbay)
Androscoggin Lake (Wayne)
Branch Lake (Ellsworth)
Cobbossee Lake (Manchester)
Damariscotta Lake (Jefferson)
Georges Pond (Franklin)
Hogan Pond & Whitney Pond (Oxford)
Lake Anasagunticook (Canton)
Lake Pennesseewassee (Norway)
Long Pond (Parsonsfield)
McGrath Pond & Salmon Lake (Oakland)
Messalonskee Lake (Belgrade)
Mousam Lake (Acton)
North Pond (Smithfield)
Sebago Lake (Naples)
Square Pond (Acton)
Torsey Pond (Readfield)
Trickey Pond (Naples)

C. Restoring Impaired Waters

State and federal water quality laws require that waters attain their assigned water quality classification. DEP monitors water quality conditions of Maine's rivers, lakes, and coastal waters to determine if the public can use the waters for designated uses such as recreation, swimming, fishing, shellfish harvesting, and drinking water supply, and if the waters support healthy habitats for fish and wildlife. DEP places waters found to be degraded (i.e., not attaining water quality standards needed to support designated uses) on the impaired waters lists in the Integrated Water Quality Monitoring and Assessment Report or "Integrated Report" (IR) reported to EPA. Restoring impaired waters involves three steps:

- **Water Quality Assessment, including TMDLs & Alternative Approaches**. In addition to DEP's water quality monitoring and assessment programs, DEP establishes a pollution allocation, also called a total maximum daily load (TMDL), for impaired waterbodies to comply with Section 303(d) of the Clean Water Act. A TMDL assessment estimates the necessary reduction in pollution from point and nonpoint sources for the waterbody to meet the state water quality classification.
- **Watershed-based Planning**. A watershed-based plan (WBP) describes overall actions needed in a watershed to help restore water quality. EPA requires a watershed-based plan addressing nine minimum elements prior to use of 319 funds to help restore an impaired waterbody. For EPA guidance on watershed planning, refer to https://www.epa.gov/sites/production/files/2015-12/documents/watershed_mgmnt_quick_guide.pdf.
- **Implementing Pollution Reduction Measures**. Communities, agencies, and individuals install conservation practices or BMPs to eliminate or control sources of NPS pollution. Typically, work needs to be focused within a watershed for 10 years or more to restore an impaired waterbody. DEP provides technical and financial assistance to help communities improve watersheds and restore waters.

Developing Plans to Restore NPS Impaired Waters

DEP provided services and Sections 604(b) and 319 grant funds to help communities develop WBPs, which will then be used to guide restoration of NPS impaired waters.

- In 2023, DEP accepted one nine-element WBP for North Pond (Smithfield).
- Work continues to develop nine-element WBPs for Tributaries to the Aroostook River (Presque Isle, Caribou, Ft. Fairfield), Sebasticook Lake (Newport), Spruce Creek (Kittery), Upper Narraguagus River (T34MD).

- At the end of 2023, there were 31 active nine-element WBPs for NPS-impaired waters. One plan, the Ogunquit River (Ogunquit), expired in 2023. In total, 22 plans are more than ten years old and need to be updated.

Watersheds with Nine-Element Watershed Plans Accepted by DEP

Annabessacook Lake (Winthrop)	Kennebunk River (Kennebunk)
Arctic Brook (Bangor)	Kennedy Brook (Presque Isle)
Black Brook (Windham)	Long Pond (Belgrade)
Cape Neddick River (York)	Long Pond (Parsonsfield)
Capehart Brook (Bangor)	Mare Brook (Brunswick)
China Lake (China)	Medomak River (Waldoboro)
Cochnewagon Pond (Monmouth)	Meduxnekeag River (Houlton)
Concord Gulley Brook (Freeport)	North Pond (Smithfield)
Cross Lake (Cross Lake TWP)	Phillips Brook (Scarborough)
East Pond (Smithfield)	Spruce Creek (Kittery)
Georges Pond (Franklin)	Thatcher Brook (Biddeford)
Goodall Brook (Sanford)	Togus Pond (Augusta)
Goosefare Brook (Saco)	Topsham Fair Mall Stream (Topsham)
Great Pond (Belgrade)	Unity Pond (Unity)
Hart Brook (Lewiston)	Wilson Pond (Monmouth)
Highland Lake (Windham)	

NPS Watershed Implementation Projects

DEP allocates Section 319 funds to help communities implement their watershed-based plans to restore NPS-impaired waters. In 2023, Section 319 funds helped continue or start projects in the following 14 NPS-impaired watersheds:

China Lake (China)
Cross Lake (Cross Lake TWP)
Goodall Brook (Sanford)
Goosefare Brook (Saco)
Great Pond (Belgrade)
Kennebunk River (Kennebunk)
Long Pond (Belgrade)
Mare Brook (Brunswick)
Meduxnekeag River (Houlton)
Ogunquit River (Ogunquit)
Pleasant River (Windham)
Togus Pond (Augusta)
Topsham Fair Mall Stream (Topsham)
Trout Brook (South Portland)

D. NPS Pollutant Load Reductions

EPA's Section 319 program guidelines require load reduction estimates for projects that will result in load reductions of sediment or nutrients (nitrogen and phosphorous). EPA recognizes that due to runoff variability, load reductions associated with BMP projects cannot be directly measured. Load reduction estimates for Maine Section 319 projects are developed using simple models. DEP and grantees use methods described in the EPA Region 5 Model, the Pollution Load Estimation Tool (PLET) and/or the USDA Forest Service Water Erosion Prediction Project-Road computer model to estimate NPS load reductions.

NPS load reductions for Section 319-funded implementation projects are reported in the EPA Grants Reporting and Tracking System (GRTS) database. The following table shows load reductions reported for 36 active implementation projects in 2023.

2023 NPS Pollutant Load Reductions		
Sediment 924 tons/year	**Phosphorus** 830 pounds/year	**Nitrogen** 2,784 pounds/year

E. Section 319 Grant Administration

EPA awarded $1,995,800 of FFY 2023 Section 319 funds to DEP. Of FFY 2023 Section 319 funds, 56% ($1,112,189) was allocated for implementation of nine-element WBPs for restoration projects or alternative plans for protection projects. This includes funds ($71,623) for DEP staff services to help implement WBPs for and grant funds ($1,040,566) for 9 projects to implement WBPs. Three of the funded projects ($192,275) will implement nine-element plans for impaired waters, and five projects ($432,493) will implement alternative WBPs to protect NPS priority watersheds threatened by NPS pollution.

Section 319 funds also supported eight DEP NPS program staff positions. DEP administered the Section 319 grants awarded to DEP under federal fiscal years 2022-2023, including monitoring sub-recipient performance on 39 NPS grant projects and providing other DEP NPS program services.

Summary of FFY23 319 Grant and Match Allocations

Activity	Program Funds Subtotal	Project Funds Subtotal	Section 319 Total	Nonfederal Match
NPS Grants for Watershed Implementation		$1,040,566	$1,040,566	$877,156
Nonpoint Source Training Center	$9,000		$9,000	
Small Community Grants Program				$699,484
CWSRF Programs (Forestry Direct Link)				$8,018,471
DEP Staff, Fringe, Travel, Other & Indirect (State Fiscal Year 2023 21.54%)[4]	$874,611	$71,623	$946,234	
Totals	$883,611	$1,112,189	$1,995,800	$9,595,111

[4] Section 319 funded 8 FTEs, and 0.5 AmeriCorps volunteer

IV. NPS Program Activities in 2023

A. DEP Services for Watershed Groups and Municipalities

DEP provides considerable technical assistance to help watershed groups and towns reduce NPS water pollution. Some of the activities and projects that DEP supported in 2023 included:

- **Municipal Comprehensive Plan Reviews** - DEP staff provided maps and data to 50 municipalities starting the comprehensive planning process. After plans are submitted to the state, DEP staff review the water resources sections of municipal comprehensive plans for consistency with agency goals, programs, and policies. In 2023, assistance was provided to the following five towns:

    - Bangor
    - Brooklin
    - Prospect
    - Rome
    - York

- **Lake Watershed Surveys** - Volunteer watershed surveys find, describe, and prioritize NPS pollution sources and recommend BMPs needed at specific NPS sites to reduce polluted runoff to lakes. DEP grant funds are typically not available to help support watershed surveys. However, DEP provides technical assistance and project oversight to local groups that conduct locally funded volunteer watershed surveys. After completing surveys, many of these groups use the survey findings to develop lake watershed-based protection plans that will guide local stewardship efforts and open the door to possible 319 grant funding. In 2023, DEP assisted with the following five watershed surveys:

    - Monson Pond (Ft. Fairfield)
    - Sebasticook Lake (Newport)
    - Springy Pond (Clifton)
    - Taylor Pond (Auburn)
    - Thompson Lake (Otisfield)

    Staff also provided assistance to lake associations to help plan 2024 surveys for Abrams Pond (Eastbrook), Clary Lake (Jefferson), Crescent Lake (Raymond), Hobbs Pond (Norway), Middle Range Pond (Poland) and Upper Range Pond (Poland).

- **Youth Conservation Corps (YCC)** - The DEP provides some technical assistance to Maine's eight YCC programs. These YCC programs hire high school students to install buffers, erosion control measures, and other conservation practices in lake watersheds. Most of these programs originally started as part of 319 grant projects and continued with local funding support. DEP staff hosted a YCC Roundtable in April 2023 to promote information sharing and collaboration.

    In 2021, the DEP piloted a program that exempts YCCs from permitting requirements for certain low impact NPS mitigation activities. The permit fees were viewed as a barrier for property owners, and this exemption program is designed to remove that impediment. Because of the timing of the pilot program announcement and coronavirus pandemic, only five projects were completed in 2021 under the exemption. The pilot program continued in 2022 during which 41 projects were completed. Sixty-one projects were completed in 2023. Program results and evaluation will occur in 2024.

- **Watershed Group Support** - DEP supports the work of watershed associations and communities through presentations at annual association meetings and technical assistance outside of 319 grant-funded projects. In 2023, DEP provided assistance to organizations focused on the following watersheds:

Alamoosook Lake (Orland)
Arctic Brook (Bangor)
Bauneg Beg Lake (Sanford)
Black Brook (Windham)
Capehart Brook (
Capisic Brook (Portland)
Concord Gully (Brunswick)
Crescent Lake (Gray)
East Pond
Frost Gully Brook (Brunswick)
Great East, Wilson, Horne Pond (Acton)
Great Pond (Belgrade)
Hart Brook (Lewiston)
Highland Lake (Windham)
Kennedy Brook, (Presque Isle)
Lake Auburn (Auburn)
Little Sebago Lake (Gray)
Long Creek (Portland)
Long Lake (Belgrade)
Medomak River (Waldoboro)
Mousam Lake (Shapleigh)
North Pond (Norway)
Penjajawoc Stream (Bangor)
Phillips Brook (Scarborough)
Phillips Lake (Lucern)
Red Brook (South Portland)
Sabattus Pond (Sabattus)
Thompson Lake (Otisfield)
Unity Pond (Unity)
Upper Prestile Stream (Presque Isle)
Watchic Lake (Standish)
Wilson Pond (Monmouth)

- **Watershed Roundtable** - Approximately 90 watershed professionals from state agencies, municipalities, watershed organizations, and SWCDs attended the DEP's 20th annual Watershed Managers Roundtable in October. The 2023 gathering was a hybrid meeting, with most attendees participating in person and only a handful joining via Zoom. The format remained the same as in previous years, with a mix of longer presentations, lightning round presentations and a full roundtable discussion.

- **Lake Phosphorus Compensation Fee Projects** - Under the Maine Stormwater Law, developers in certain lake watersheds have the option to pay a compensation fee in lieu of constructing additional BMPs to comply with a portion of a parcel's phosphorus budget. DEP staff works annually with seven partner organizations to identify and implement phosphorus mitigation projects in these watersheds. In 2023, Cumberland County Soil & Water Conservation District used compensation funds to construct an infiltration path accessing Watchic Lake, and to rebuild and pave a severely eroding gravel road perpendicular to Sebago Lake. Lakes Environmental Association used compensation funds to complete shoreline surveys of Long Lake and Trickey Pond using a drone to assess sources of NPS pollution. LEA also used these funds to construct two infiltration basins to capture parking lot runoff at the Naples Town Hall, which is located adjacent to Long Lake.

Infiltration trench constructed by the Acton-Shapleigh Youth Conservation Corps in 2023 on Mousam Lake. The left side shows the "before" condition, and the right side shows the "after".

B. Nonpoint Source Training Center

The Maine Nonpoint Source Training Center's (NPSTC) primary focus is to provide training to various groups throughout the state to help them prevent nonpoint source pollution. In addition, the NPSTC maintains an inventory of NPS publications and acts as a clearinghouse for information on nonpoint source pollution and best management practices.

Accomplishments in 2023:

- Presented 19 8-hour 'Basic & Advanced Erosion Control Practices' (BAESC) courses (488 in-person and 143 online participants). Provided 8-hour trainings to 5 additional companies, and the York Water District.
- Certified 356 new individuals/contractors in Erosion Control Practices, presented 18 in-person continuing education classes to 361 individuals, and provided 587 on-line continuing education credit hours to individuals Certified in Erosion Control Practices.
- Provided 6 training programs in the Maintenance and Repair of Gravel Roads for 44 participants.
- Presented one 4-hour continuing education course on Winter BMPs for Erosion Control.
- Presented two 4-hour continuing education courses on Inland Shoreline Stabilization Practices, two courses on Land Use Regulations, four BMP refresher courses, and three stream crossing installation classes.
- Approved eight training courses for opportunities through third party organizations of courses qualifying for re-certification in Erosion Control Practices including courses in septic system installation, Pond Construction, Erosion Control.
- Provided a full-day field class in erosion control and writing/reviewing erosion control plans for DEP Land Bureau staff and two erosion control seminars for DEP Spill response staff.
- Partnered with staff in several Maine DEP offices and bureaus, as well as staff from Maine DOT, Maine DACF, Maine Land Use Planning Commission, Maine Audubon, and Army Corps of Engineers Maine Project Office, Maine CEO Training Program, and Maine Board of Underground Storage Tank Installers (BUSTI) to develop and deliver training.
- Maintained the Maine DEP's Certification in Inspection and Maintenance of Stormwater Best Management Practices. There are currently 132 individuals certified through this program.

Stream Crossing Training, Feb 2023

For More Information:

John Maclaine, DEP - (207) 615-3279, mailto:john.maclaine@maine.gov
NPS Training Center Website - http://www.maine.gov/dep/land/training/index.html

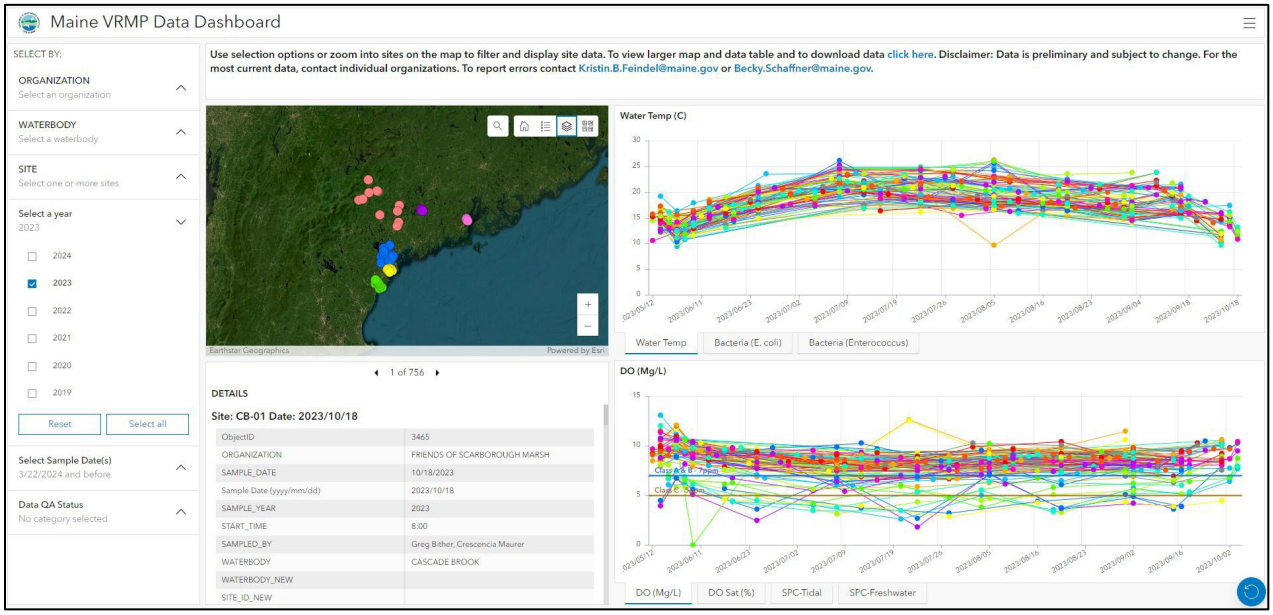
C. Maine Volunteer River Monitoring Program

The purpose of the Volunteer River Monitoring Program (VRMP) is to provide a standardized approach to river and stream monitoring. Volunteer groups participating in the program collect data under the VRMP Quality Assurance Program Plan (QAPP) and develop Sampling and Analysis Plans (SAPs) specific to their needs. The volunteer organizations are also responsible for recruiting and organizing the volunteers, attending an annual training/certification, and entering the data electronically.

The VRMP provides technical support and resources to the volunteer groups. This support includes assistance with SAP development/updates, annual training, and equipment maintenance and loan. VRMP staff also review the data entered by the volunteer groups, upload acceptable data to DEP's database, and produce an annual report.

Accomplishments in 2023:

- VRMP staff and partners trained and certified/re-certified volunteers from eight volunteer organizations to monitor 35 rivers and streams and one harbor statewide.
- Water quality data were collected by approximately 77 volunteers at 103 sites during 850 sampling events.
- Data collected included temperature, dissolved oxygen, conductivity, bacteria, chlorophyll, and nutrients.
- Continued use of volunteer electronic data collection via Survey123, which allows for data to be readily available via online Maine VRMP Data Dashboard.



VRMP sites and sampling results for 2023.

For More Information:

Kristin Feindel, DEP - (207) 215-3461, kristin.b.feindel@maine.gov
VRMP Website - www.maine.gov/dep/water/monitoring/rivers_and_streams/vrmp/index.html
Dashboard - https://maine.maps.arcgis.com/apps/dashboards/0ca4fbd9c7584fbd9c2c56ef5413a915

D. Clean Water State Revolving Fund

In Maine, the Clean Water State Revolving Fund (CWSRF) finances NPS projects through several different direct loans, pass-through loans, and linked-deposit loans. These programs funded $8,018,471 in the following types of NPS projects in 2022.

Accomplishments in 2023:

The CWSRF linked-deposit forestry program makes below market-rate financing available for forestry BMPs and the purchase of environmentally friendly logging equipment. Loan recipients must comply with forest industry harvesting standards and environmental inspections. In 2023, $8,018,471 in loans were made.

Cut to length harvester

Pipe arch used for stream crossing

A new funding opportunity was developed for the CWSRF FFY24 Project Funding Requests to support Stormwater and Nonpoint Source Planning. Under this program, the DEP intends to offer up to $50,000 per applicant in Principal Forgiveness to help the cost of developing a Stormwater or NPS Plan. Funding is available for standalone Stormwater or NPS Plans that are not associated with a CWSRF construction loan project. The Principal Forgiveness funds require a 100% match, which can be in form of in-kind services. Of the $200,000 available, there is an initial allocation of $50,000 for Stormwater projects and $150,000 for NPS project types. Eligible project types are:

- Stormwater Asset Management Plans
- Stormwater Utility Development Plans
- NPS Watershed Surveys
- Stream Crossing Resilience Surveys
- Stream Geomorphic Assessments
- Chloride Source Control Needs Assessment and Planning
- Watershed Management Plans Development
- Watershed Management Plan Update
- Design of BMPs prioritized in a Watershed Plan

For More Information:

Brandy Piers, CWSRF Program Manager - (207) 287-7808, brandy.m.piers@maine.gov
Clean Water SRF Website - http://www.maine.gov/dep/water/grants/srfparag.html

E. Municipal Stream Crossing Grants Program – Maine Transportation Bond

In 2014, Maine voters approved the first referendum for a "Clean Water for Maine" bond, resulting in $5.4 Million invested in Maine stream crossing upgrades over 3 initial rounds grants. Since then, DEP has received funding for the upgrade and replacement of municipal culvert stream crossings through Transportation Bonds approved by voters and the Maine Legislature in 2017, 2018 and 2020.
DEP developed a grant program to disseminate these funds for stream crossing culvert upgrades. Program funds are intended to improve public safety by reducing the risk of culvert failures and flooding; improve fish habitat by removing barriers to fish passage; sizing crossings to meet 1.2 times the streams bankfull width; and represent a cost-efficient and effective investment. In addition to the program goals listed above, projects also provide NPS, stream habitat connectivity, and woody debris-passage benefits.

Accomplishments in 2023:

- The grants program received an additional $3 million for stream crossing grants from the Maine's Jobs & Recovery Act. In addition, returned funds from the previous rounds were utilized to make an additional 12 grants beyond the MJRA funding in 2023. The maximum award for projects submitted during this round was increased to $150,000.
- Maine DOT assumed the program in 2023 and released a Request for Grant Proposals in late 2023. Maine DEP will continue to manage existing contracts.
- During 2023, the DOT worked with DEP to acquire the program with Midcoast Council of Governments (MCOG), Maine Audubon, and The Nature Conservancy to build an informational video to assist municipalities with the grant application process.

For More Information:

DEP Contact for projects funded until 2022
John Maclaine, DEP - (207) 615-3279, john.maclaine@maine.gov
Culvert Bond Website - https://www.maine.gov/dep/land/grants/stream-crossing-upgrade.html

DOT Contact for projects funded after 2022
Sierra Millay, DOT – (207) 441-6435, sierra.f.millay@maine.gov
Municipal Stream Crossing Grant Website - https://www.maine.gov/mdot/grants/stream/

F. Equity and Environmental Justice

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. This goal will be achieved when everyone enjoys:

- The same degree of protection from environmental and health hazards, and
- Equal access to the decision-making process to have a healthy environment in which to live, learn, and work.[5]

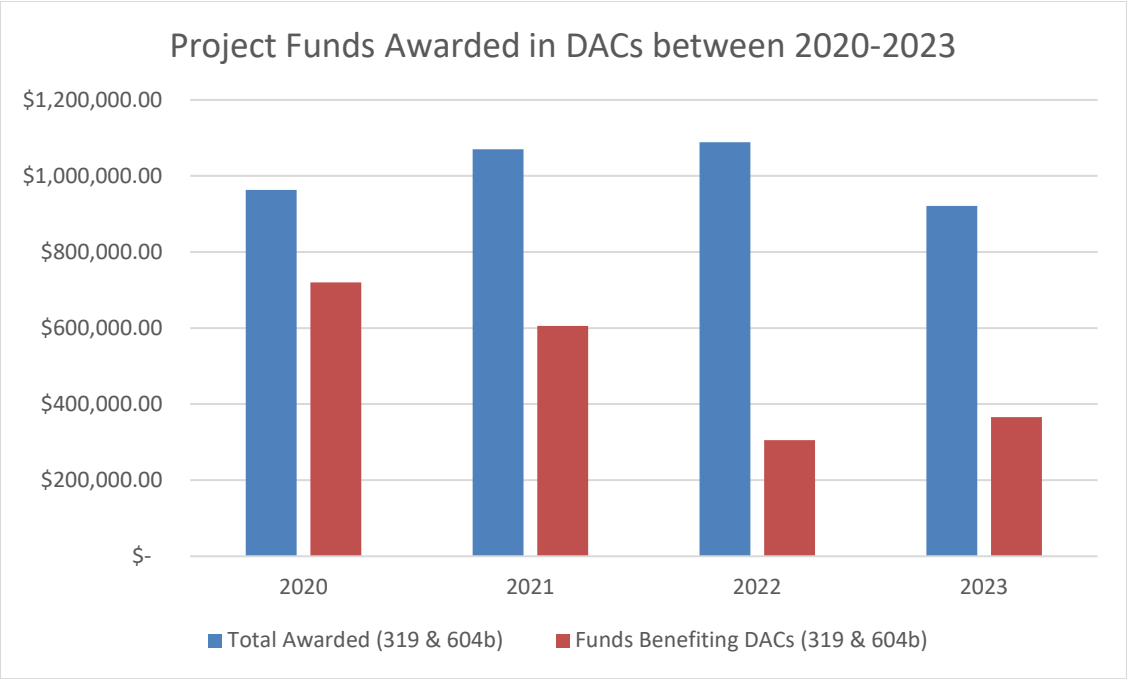
Executive Order 14008 establishes the Justice40 Initiative, in which the Federal Government set a goal that 40% of certain Federal investments flow to disadvantaged communities that are marginalized, underserved, and overburdened by pollution.

[5] From the US EPA Environmental Justice *website*: https://www.epa.gov/environmentaljustice

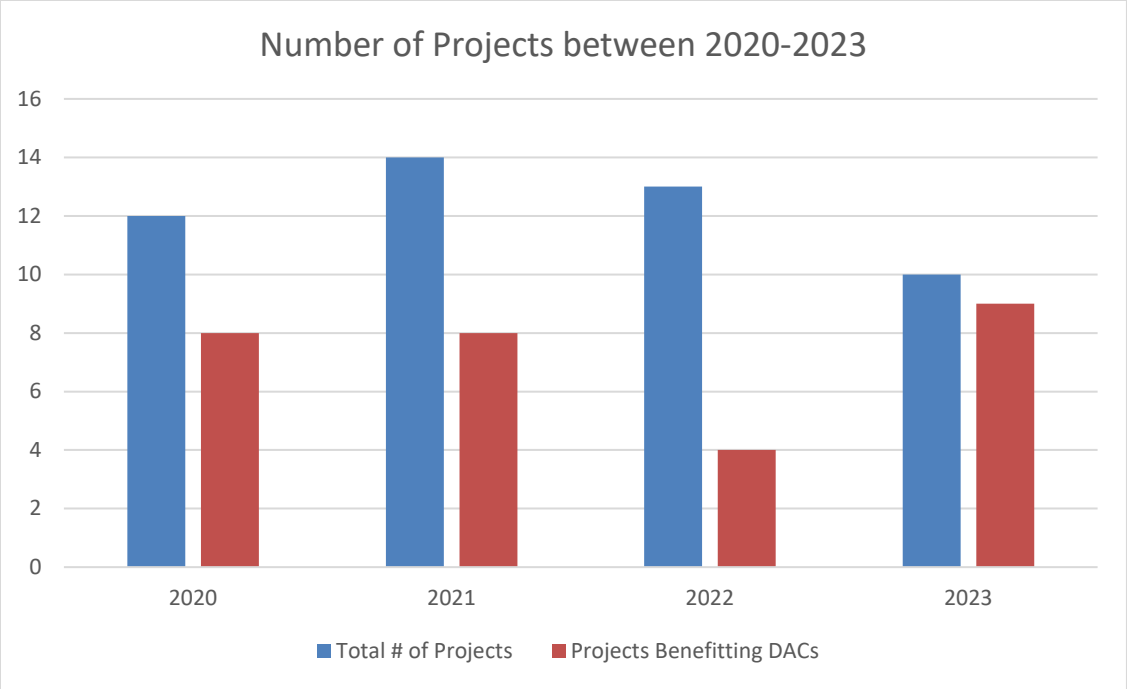
The Department is also guided by the Maine Constitution which provides for the fair treatment of all Maine citizens. Article 1. of the Constitution of the State of Maine - [Section 1. Natural rights.] states that "All people are born equally free and independent, and have certain natural, inherent and unalienable rights, among which are those of enjoying and defending life and liberty, acquiring, possessing and protecting property, and of pursuing and obtaining safety and happiness."
Together these principles compel the Department to provide fair and equitable treatment to all Maine citizens in the implementation of federal and state environmental laws, rules, programs, and policies, and in the management of the agency. It is the policy of the Department to, "treat its employees and the public with courtesy, respect and consideration and to be fair and honest in its dealings, and to be mindful of the special qualities that make Maine a unique place to live and work."

The Department strives to address the needs of small, underserved, and disadvantaged communities through various programs.

Approximately 37% of the area of the State of Maine is categorized as a Disadvantaged Community (DAC) by the Climate and Economic Justice Screening Tool (CEJST)[6] , while NPS Priority Watersheds cover approximately 14% of the state. Of those, approximately 30% of NPS Priority Watersheds are within DACs. Maine's NPS Program is committed to equitable funding throughout the state. Between FFY2020 and FFY2023, CWA 319 and 604b funds were awarded to 39 projects, 20 of which benefited DACs. Total project funds awarded during this time period was $3,122,652, with $1,630,665 (52%) benefiting DACs.



[6] https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5



To ensure equity in project selection and funding into the future, in 2022 the Maine NPS Program expanded its NPS Priority Watersheds list to include DACs within critical Atlantic Salmon Habitat and revised the scoring criteria used to evaluate the FFY23-24 round of Watershed-based Management Planning Grants and Watershed-based Implementation Grants. The revised criteria utilizes data from the Climate & Economic Justice Screening Tool (CEJST, https://screeningtool.geoplatform.gov/en/#3/33.47/- 97.5) to provide a maximum of 5 points out of 100 possible points based on the percentage of the watershed that is designated a Disadvantaged Community.

Using CWA Section 604(b) funding for FY2022, the DEP program procured contractor assistance to develop climate resiliency screening criteria in conjunction with more specific to Maine. Development of the Equity and Environmental Justice screening tool (see Section F, above). GIS based-tools were delivered will start in 2023, and with results to be incorporated in the DEP is exploring how to best incorporate this new information into providing support to disadvantaged communities.FFY24-25 grant Request for Applications.

The NPS Program also participates in the "J40 Staff Work Group" convened by the Governor's Office on Policy, Innovation, and the Future (GOPIF), where diversity, equity, inclusion, and justice efforts across State Agencies are shared and coordinated.

G. Climate Change Adaptation and Resilience Measures

The Maine 5-year NPS Management Program Plan for 2020-2024 includes a multi-faceted approach to supporting climate change adaptation and resiliency. Program achievements for 2023 for climate related objectives are summarized below:

- *Identify additional prioritization criteria and waters for addition to the NPS Priority Watersheds list and/or for targeted outreach. (Table 10, #2)*

  In 2022, the list of NPS Priority Watersheds was expanded to include critical Atlantic Salmon Habitat effected by channel alteration resulting from the log drive era, ending in 1976. Accepted practices

during that time artificially widened and flattened streams and left them susceptible to greater temperature fluctuations. In 2023, DEP funded the Upper Narraguagus Watershed-based Management Plan with monies from CWA section 604b. This plan will develop methods of evaluation and practices for restoring these streams to a "Stage 0" natural baseline that will increase habitat resilience in a warming climate. Project partners are the Washington County Soil & Water Conservation District and Project SHARE.

- *Incorporate climate change and resilience planning into watershed-based planning Review existing information (e.g., Hazard Mitigation Plans), assess stream culverts during watershed assessments and incorporate in WBPs. (Table 10, #6).*

  To achieve this objective, program staff and partners utilize available planning tools and resource to identify potential climate impacts to consider in watershed-based planning projects (e.g., sea level rise, vulnerable septic systems, marsh migration, cold water refugia) and incorporate into watershed-based plans. Starting in 2021, Requests for Applications for watershed-based plans included a requirement to consider climate change impacts in funded projects.

  Program staff developed a culvert assessment procedure intended to document stream crossings that might be failing due to climate related issues. This assessment was piloted in 2021, refined in 2022, and deployed in watershed surveys during the 2023 field season. Based on results from the 2023 field season, the assessment was refined and will be deployed for the 2024 field season. Furthermore, the DEP incorporated a discussion of climate change impacts into watershed survey training materials.

- *Evaluate stormwater and ESC BMPs and develop guidance about climate change resiliency and adaptation planning (Table 11, #5).*

  DEP started formally revising Maine's Stormwater Management Rules (CMR 06-096 Chap 500) in 2023. The Department issued an RFP and hired a consultant to develop a stakeholder driven process for rule revision. Draft rules are expected by the end of 2024.

- *Increase field crop agriculture's use of soil health practices to reduce soil erosion, improve water quality, and offset carbon emissions (Table 12, #9).*

  The Healthy Soils Program at DACF started in 2022 after its enabling legislation passed in 2021. The DEP plays a lead role and coordinates with other State agencies, including DACF to carry out the State of Maine NPS Pollution Program (38 M.R.S. §410). DEP and DACF are collaborating on outreach opportunities in Aroostook County. Over the winter of 2022-2023 the Cross Lake Watershed Restoration Project, Phase I successfully partnered with five local growers to implement conservation cover cropping and conservation crop rotation practices that improves soil health by retaining 16 tons of sediment/yr, 96 lbs/yr of phosphorus/yr, and 1,383.3 lbs/yr of nitrogen on farm fields.

- *Administer DEP stream culvert grant program (culvert bond program) that funds upgrades of municipal culverts (Table 16, #3).*

  Management of the Municipal Stream Crossing Grants was transferred to MDOT in 2023 (see Section E, above).

The NPS Management Program also participates in the US Climate Alliance Working Lands group.

H. Other NPS Program News

NPS Work on Priority Protection Watersheds

In 2023, DEP worked to identify and target assistance to lake watersheds with the highest protection priority. This included targeted work on "Watch List" lakes and continued development of a "Most Vulnerable Lakes" list.

DEP's Lakes Unit keeps an internal 'Watch List' for non-impaired lakes at risk of being listed as impaired due to declining water quality. Of these lakes, 26 are affected by NPS and included on the NPS Priority Watersheds list. In 2023, DEP was involved with planning or implementation in nine watch- listed watersheds:

- Abrams Pond, Eastbrook (319 grant project)
- Androscoggin Lake, Leeds (319 grant project)
- Cobbossee Lake, Winthrop (319 grant project)
- Georges Pond, Franklin (319 grant project)
- Great Pond, Franklin (319 grant project)
- Messalonskee Lake, Sidney/Belgrade (watershed survey)
- Mousam Lake, Shapleigh (319 grant projects)
- North Pond, Smithfield (604b planning project, 319 grant project)
- Salmon Lake, Belgrade (319 grant project)

Additionally, DEP continued to develop a Most Vulnerable Lakes List consisting of lakes that currently have acceptable water quality but are losing deep water habitat for cold water fish over time due to decreasing levels of deep-water dissolved oxygen and a rise in the prevalence of anoxia (<2 ppm dissolved oxygen). These conditions also increase the risk of internal phosphorus recycling and declining water quality. Unexpected model results were identified and work to refine the model continued in 2023.

L.D. 164: An Act Regarding the Funding of Lake Water Quality Restoration and Protection Projects

The Maine Legislature passed new legislation which provided funding for Section 480-N of the Natural Resources Protection Act (Lake Water Quality Restoration and Protection Fund). A total of $200,500 was allocated, which the Department will use to make grants to support alum treatments of impaired lakes.

CWSRF Standalone Stormwater and Nonpoint Source (SW/NPS) Plans

The Clean Water State Revolving Fund made $200,000 of planning funds available for Stormwater and Nonpoint Source projects. Up to $50,000 is available for principal forgiveness for eligible projects that provide a 100% match. Eligible projects include:

- Stormwater Asset Management Plans
- Stormwater Utility Development Plans
- NPS Watershed Surveys
- Stream Crossing Resilience Surveys
- Stream Geomorphic Assessments
- Chloride Source Control Needs Assessment Planning
- Watershed Management Plan Development
- Watershed Management Plan Update
- Design of BMPs Prioritized in a Watershed Plan

Urban Impaired Stream Project - Capisic Brook, Portland

The City of Portland constructed 31 bioretention cells in 2023 along the sidewalks and esplanades within the development to provide stormwater runoff treatment for 16.6 acres of the watershed.

Capisic Brook is a small stream located in Westbrook and Portland, ME. The stream is approximately 2.5 miles long, and its watershed encompasses approximately 1,500 acres (2.34 square miles). The watershed is highly developed (31% impervious cover) except for a wooded area within the Evergreen Cemetery and Capisic Pond Park, an 18-acre park with a freshwater pond, wetlands and natural uplands. Capisic Brook is on Maine's 303(d) list for benthic macroinvertebrates and periphyton nonattainment as well as degraded aquatic habitat that are all caused by urban nonpoint source pollution. Capisic Brook is also listed as an Urban Impaired Stream in Maine DEP's Chapter 502, which means that it does not meet state and federal water quality classifications due to polluted runoff from impervious cover.

The work in 2023 was conducted in Sagamore Village Green, a high-density, low-income housing development located within the Capisic Brook watershed and was identified as priority site in the Capisic Brook Watershed Management Plan, funded using CWA Section 604(b) in 2011.

V. NPS Grants Program

A. Overview

DEP uses a watershed-based approach as the coordinating framework to organize public and private sector efforts to identify, prioritize, and then implement activities to restore or protect waters. DEP administers awards and monitors sub-grants of Federal CWA Section 319 and 604(b) funds from the EPA for watershed projects to help restore or protect lakes, streams, rivers, or coastal waters affected by NPS pollution. DEP issues grants to local project sponsors to help fund two types of projects:

- **Watershed-based Plan Development**. DEP offers grants funded through CWA Sections 604(b) and 319 to help communities develop watershed-based management plans that include EPA's nine key elements. A plan provides assessment and management information and describes actions needed over a 10-year period to restore NPS-impaired waters or to protect unimpaired waters considered threatened by NPS pollution. A thorough assessment of NPS problems (e.g., watershed survey) is needed to prepare an informed watershed plan. Most watershed surveys and protection plans are locally funded.
- **Watershed-based Plan Implementation**. DEP offers grants funded through CWA Section 319 to help communities implement their watershed-based plans and carry out actions called for in the plan to make progress restoring or protecting a waterbody.

Haskell Brook tributary to Pleasant River (Windham) NPS Project #20210005. Photo on the left shows aftermath of road washout in the Spring 2023, and the open bottom arch crossing installed using CWA section 319 funds in the Fall of 2023. The project prevents 51.29 tons of sediment and 43.6 lbs of phosphorus from entering Haskell Brook each year. Note stream bed restoration efforts as well as crossing stabilization.

B. Grant Awards Issued in 2023

DEP issued 8 new subgrants ($887,113) in 2023 using CWA Section 319 funds to help communities implement actions called for in their watershed management plans to restore impaired waters or protect waters threatened by NPS pollution. In addition, CWA Sections 604b funding was awarded to the Town of Eastbrook ($49,986), the Town of Skowhegan ($49,760), and the Washington County Soil & Water Conservation District ($49,525) to develop Watershed-based Management Plans for Abrams Pond, Whitten Brook, and the Upper Narraguagus River, respectively.

NPS Grants Issued in 2023

Project Title	Grantee	Project ID#	CWA s. 319 Subgrant	Match
Long Pond Watershed Restoration Project, Phase V	7 Lakes Alliance	20230001	$112,550.00	$126,498.00
Messalonskee Lake Watershed Protection Project, Phase II	7 Lakes Alliance	20230002	$111,884.00	$123,795.00
Mare Brook Watershed Restoration Project, Phase I	Town of Brunswick	20230003	$149,850.00	$137,489.00
Torsey Pond Watershed Protection Project, Phase I	Cobbossee Watershed District	20230004	$80,391.00	$53,721.00
Branch Lake Watershed Protection Project, Phase III	Hancock County SWCD	20230005	$112,483.00	$100,709.00
Hogan-Whitney Ponds Watershed Protection Project, Phase II	Oxford County SWCD	20230006	$77,910.00	$55,500.00
Abrams Pond Watershed-based Management Plan Development Project	Town of Eastbrook	20230007	$49,986.00	$17,508.00
Whitten Brook Watershed-based Management Plan	Town of Skowhegan	20230008	$49,760.00	$18,908.00
Upper Narraguagus River Watershed-based Management Plan Update	Washington County SWCD	20230009	$49,525.00	$24,342.00
Adams Pond and Knickerbocker Lake Protection Project, Phase IV	Boothbay Region Water District	20230010	$149,795.00	$146,787.00
Togus Pond Watershed Restoration Project, Phase IV	Kennebec County SWCD	20230011	$92,250.00	$71,899.00
Totals			$1,036,384.00	$877,156.00

C. Grants Selected under the 2023 Request for Applications (RFA)

In March 2023, DEP issued an RFA for projects to help communities implement their watershed-based plans and make progress restoring or protecting a waterbody. DEP received eight applications and issued conditional sub awards for eight projects.

Conditional Grant Awards (CWA s. 319 RFA) for FY24

Project Title	Grantee	Project #	CWA s. 319 subgrants	Match
Sebago Lake Watershed Protection Project, Phase V	Portland Water District	20240001	$156,370.00	$158,804.00
Great Pond Watershed Restoration Project, Phase II	7 Lakes Alliance	20240002	$124,270.00	$165,850.00
North Pond Watershed Protection Project, Phase IV	7 Lakes Alliance	20240003	$112,410.00	$114,350.00
China Lake Watershed Restoration Project, Phase III	Kennebec County SWCD	20240004	$100,068.00	$85,924.00
Meduxnekeag River Watershed Restoration Project, Phase II	Southern Aroostook SWCD	20240005	$32,228.00	$22,890.00
Lake Pennesseewassee Watershed Protection Project, Phase II	Oxford County SWCD	20240006	$94,682.00	$67,830.00
Androscoggin Lake Watershed Protection Project, Phase I	30 Mile River Watershed Association	20240007	$149,730.00	$101,273.00
Totals			$769,758	$716,921

VI. Summaries of NPS Projects Completed in 2023

Ten watershed projects funded through the NPS grants program in previous years were successfully completed. DEP provided technical assistance and granted $750,748 of Federal Clean Water Act funds for these projects. Grantees, partners, and landowners contributed matching funds or services valued at $691,838.

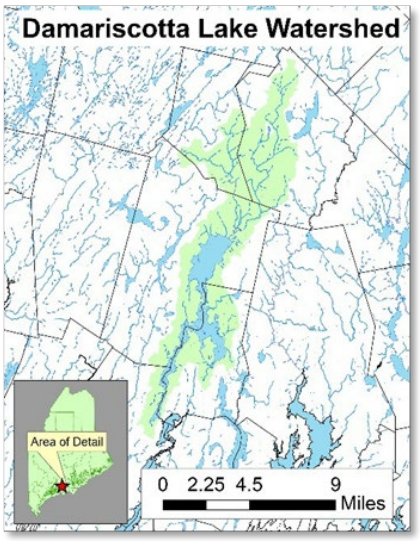
- BMPs were installed to reduce polluted runoff in nine lake watersheds. Over the course of these projects, NPS work reduced annual pollutant loading to these waters by 757.77 tons of sediment, 746.64 pounds of phosphorus, and 1,087.18 pounds of nitrogen per year.

- An update to the North Pond watershed-based plans was completed. Watershed-based plans provide assessment and management information and describe actions needed to restore NPS-impaired water bodies or to protect water bodies threatened by NPS pollution.

Two-page summaries of each project are included in the following pages. These summaries will be uploaded to the Gulf of Maine's Knowledgebase database located at: http://www.gulfofmaine.org/kb/2.0/search.html and Maine NPS Grants History ArcGIS Project Map.

Damariscotta Lake Watershed Protection Project, Phase II
#20210009

Waterbody Name:	Damariscotta Lake
Location:	Nobleboro – Lincoln County
Waterbody Status:	Threatened, NPS Priority Watershed
Project Grantee:	Midcoast Conservancy
Project Duration:	January 2021 – December 2023
319 Grant:	$31,535
Local Match:	$25,367



PROBLEM:

Midcoast Conservancy, Maine Department of Environmental Protection and Lake Stewards of Maine have collaborated since 1977 to collect data about water quality trends and algal levels within Damariscotta Lake. Sampling has taken place at three locations; Great Bay, Muscongus Bay and the South Arm. Temperature, Dissolved oxygen and Secchi Disk Transparency is typically measured from May to October, biweekly. Three times a year, baseline data is collected to measure Total Phosphorus, Chlorophyll-a, Alkalinity, pH, Color and Conductivity.

From these data there is a trend of increasing water clarity with an average Secchi Depth of 16.9 feet in 2018. However, the concern for Damariscotta Lake is phosphorus loading and it is listed as threatened and sensitive to additional phosphorus inputs. Mann-Kendall tests of the August average epilimnetic core samples indicate upward trends in phosphorus in the South Arm but no discernable trend in Muscongus or Great Bays. Despite increasing concentrations of phosphorus in the South Arm there is no reduction in water clarity as measured by Secchi Depth Transparency, there is however a statistical increase in clarity. Similar trends in water clarity are present in Great and Muscongus Bays. However, chlorophyll-a average concentrations collected in August are stable. With increasing temperatures, water clarity trends are unlikely to continue in the positive direction, especially if phosphorus levels continue to increase.

PROJECT DESCRIPTION:

The purpose of this project was to protect, maintain or improve the water quality of Damariscotta Lake by reducing phosphorus and sediment loading. This was accomplished by installing erosion control Best Management Practices at three high priority NPS sites on private roads and driveways. Additionally, the Youth Conservation Corps aimed to install BMPs to reduce pollutant loading on an additional 12 residential NPS sites. The project aimed to foster stewardship at the local level by holding one community workshop, meeting with two Town Selectboards, producing a fact sheet for towns and updating the public about the project through press releases and newsletter articles.

PROJECT OUTCOMES:

- The project addressed erosion issues through the implementation of 144 BMPs on 22 NPS sites.
- Midcoast Conservancy hosted 2 annual State of Damariscotta Lake events with roughly 150 attendees each year. Attendees were educated about NPS pollution, cyanobacteria, and fecal bacteria quantities in the lake. Attendees also learned where to get more information about Youth Conservation Corps program.
- Midcoast Conservancy presented at 2 select board meetings about the project and discussed potential future projects with municipal partners.
- Annual pollutant loading to Damariscotta Lake was reduced by 0.26 tons of sediment, 0.26 pounds of phosphorus and 0.2 pounds of nitrogen (Region 5 Method).

After photos of NPS BMPs installed to stabilize dirt camp roads in the Damariscotta Lake watershed.

PROJECT PARTNERS:
Midcoast Conservancy

CONTACT INFORMATION:
Greg Beane, DEP - (207) 299-4703, greg.e.beane@maine.gov
Patricia Nease, Midcoast Conservancy - (207) 389-5155, patricia@midcoastconservancy.org

Great Pond Watershed Restoration Project, Phase I
#20220001

Waterbody Name: Great Pond

Location: Belgrade – Kennebec County

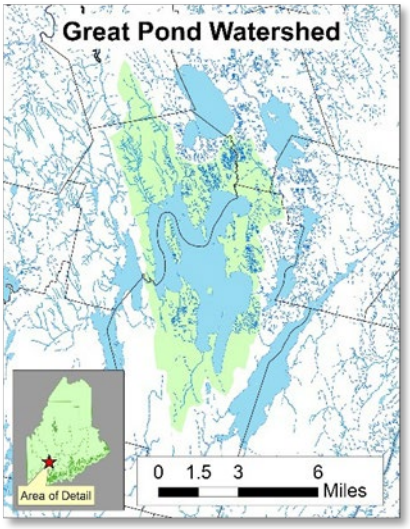
Waterbody Status: Impaired, NPS Priority Watershed

Project Grantee: 7 Lakes Alliance

Project Duration: January 2022 – December 2023

319 Grant: $109,430

Local Match: $193,574



PROBLEM:

A significant decline in the water clarity in Great Pond has occurred over the last 50 years as well as an increased presence of metaphyton and the cyanobacteria *Gloeotrichia echinulata* over the past 10. Dissolved oxygen loss is occurring in the deepest areas of the lake, and invasive fish and plants have made the lake their home. In 2010, Maine DEP added Great Pond to the state's list of impaired lakes due to increased phosphorus concentrations and declining water clarity.

Water quality data have been collected at Great Pond since 1970 in cooperation with Maine DEP, citizen scientists, Colby College, and 7 Lakes Alliance. This long-term data set, along with recent, more intensive monitoring over the past five years, was used to conduct an analysis of the long-term (1970-2020) and short-term (2010-2020) water quality trends. The trend analysis included Secchi disk transparency (SDT), total phosphorus (TP), Chlorophyll-a (Chl-a), dissolved oxygen and temperature. Average SDT has declined (lower water clarity over time) in both the long-term and short-term time series at Station 1, and in the short-term time series at Station 2.

PROJECT DESCRIPTION:


Marsh Lane, Rome, Maine, September 19th, 2022

The purpose of this project was to improve Great Pond's water quality by reducing the export of phosphorus into the lake. The Phase I project aimed to install BMPs at high and medium impact town and private roads sites, and residential properties identified during the 2018 watershed survey and LakeSmart evaluations. The project increased public awareness through the design of a Buffer Campaign, two gravel road workshops, as well as other outreach (press releases, newsletter articles, annual meetings, partner websites and social media). Meetings were held in coordination with watershed towns to address gaps in existing municipal ordinances.

PROJECT OUTCOMES:

- Eighteen (18) projects were completed on town and private roads and driveways. Projects in partnership with the Town of Belgrade on Guptill Rd and Hulin Rd and with the Town of Rom on Foss Hill Rd.
- The YCC completed projects on 35 residential properties (3 more than planned) with a total of 71 BMPs (7 more than originally planned).
- Pollutant loading to Great Pond was reduced by 157.7 tons/yr of sediment, 134.0 pounds/yr of phosphorus and 268.4 pounds/yr of nitrogen (Region 5 Method).
- Local match for the project exceeded the project goal by over $50,000 ($193,574 total).
- • Road workshops conducted in 2022 and 2023 were attended by 50 people.

PROJECT PARTNERS:
Belgrade Lakes Alliance
Town of Belgrade
Town of Rome

CONTACT INFORMATION:
Greg Beane, DEP - (207) 299-4703, greg.e.beane@maine.gov
Laura Rose Day, 7 Lakes Alliance - (207) 495-6039, laura.roseday@7lakesalliance.org

Lake Anasagunticook Watershed Protection Project, Phase II
#20210001

Waterbody Name: Lake Anasagunticook

Location: Canton – Oxford County

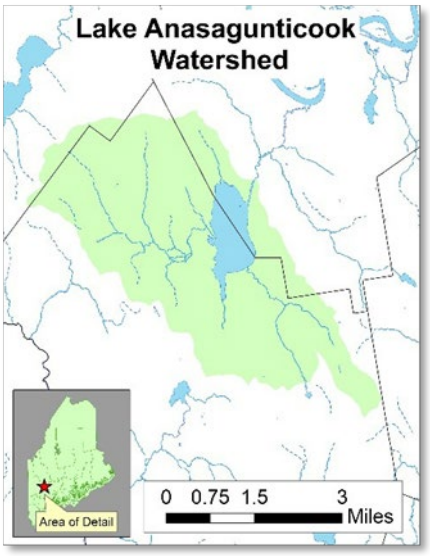
Waterbody Status: Threatened, NPS Priority Watershed

Project Grantee: Oxford County SWCD

Project Duration: January 2021 – August 2023

319 Grant: $51,655

Local Match: $153,233



PROBLEM:

Lake Anasagunticook is the source of supply for the Canton Water District. Water quality data has been collected since 1980. Secchi disk transparency (SDT) readings indicate there was an algae bloom in 1980 that was probably of short duration. SDT readings also reached a level in the late 1990s which indicate the lake was close to another algae bloom.

Today, overall water quality in Lake Anasagunticook is considered to be slightly below average for Maine Lakes by LSM. The long-term average SDT (Secchi disk transparency) is 4.7 meters, whereas the long- term average for all Maine lakes is in the mid-5-meter range. The long-term average for phosphorus in Lake Anasagunticook is 9 parts per billion (ppb). Phosphorus in unproductive "clean" Maine Lakes typically measures 2-4 ppb. Anaerobic conditions at depth can cause the release of phosphorus from bottom sediments. Testing indicates there is substantial depletion of dissolved oxygen (DO) at lower depths in summer; in most years DO depletion affects the entire bottom half of the water column.

PROJECT DESCRIPTION:

The primary purpose of the Lake Anasagunticook Watershed Protection Project, Phase II was to significantly reduce erosion and the export of sediment and phosphorus to the lake. This project provided cost sharing for Best Management Practices to address NPS problems at 14 high and medium sites from the 2019 watershed survey. Small matching grants and technical assistance were provided to private landowners to address another 5 residential NPS sites. The project increased public awareness about watershed issues and helped foster long-term watershed stewardship through two workshops, an informational meeting and presentations to the Towns of Hartford and Canton, and Lake Anasagunticook Association annual meetings.

PROJECT OUTCOMES:

- Sediment load reduced by 43.71 tons/yr and phosphorus load reduced by 37.15 lbs/yr. (Region 5 Method). 117 feet of shoreline enhanced and protected with vegetated buffers
- Total match exceeded estimates ($153,234 vs $34,144).

Eroding ditch on Staples Hill Road was reshaped and armored with rock, road shoulder reshaped and bare areas mulched.

PROJECT PARTNERS:
Lake Anasaguntic ook Association
Town of Canton
Town of Harford

CONTACT INFORMATION:
Alex Wong, DEP - (207) 694-9533, alex.wong@maine.gov
Michele Windsor, OCSWCD – (207) 744-3111, oxfordcoundyswcd@outlook.com

Long Pond Watershed Protection Project, Phase I
#20210008

Waterbody Name: Long Pond

Location: Parsonsfield – York County

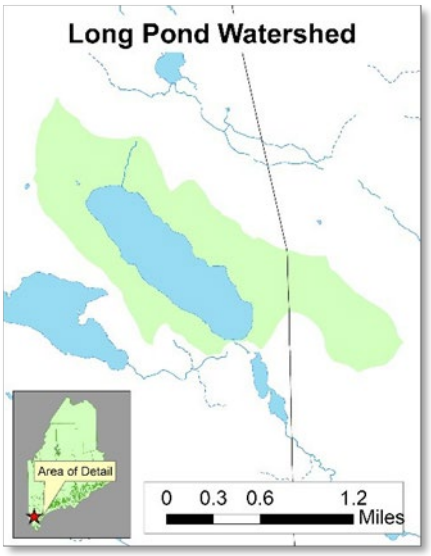
Waterbody Status: Threatened, NPS Priority Watershed

Project Grantee: York County SWCD

Project Duration: January 2021 – December 2023

319 Grant: $70,610

Local Match: $55,347



PROBLEM:

Long Pond is an approximately 263-ac lake with average depth of 18 feet, and maximum depth of 33 feet with a 3.2-mile-long shoreline. It has been monitored for a variety of water quality parameters since 1983. Water clarity between 1983 to 2009 averaged 7 meters until a sudden reduction in clarity in 2010 (5.27 m) and 2011 (5.04 m). The summer of 2017 experienced the poorest water clarity on record, 0.8 meters, and the lowest average, 2.48 meters, across the sampling season (June-October). In 2018, water clarity continued to be low, with the second lowest average Secchi depth reading of 3.72 meters. Median total phosphorus concentrations were 16 ppb in 2017 (n=6), the highest for any sampling season, and 13.5 ppb in 2018 (n=4). Average chlorophyll-a was 23.75 ppb in 2017 (n=4) and 12.75 ppb in 2018 (n=3). Sediment chemistry of Long Pond increase the likelihood of internal recycling of phosphorus and may have contributed to the cyanobacterial blooms of 2017 and 2018.

PROJECT DESCRIPTION:

The purpose of this project was to reduce NPS pollution from external sources entering Long Pond. This was accomplished through BMP installation at six larger NPS abatement sites and seven smaller residential and driveway sites. Additionally, this project provided education and outreach through one workshop and presentations to the Board of the Long Pond Association.

PROJECT OUTCOMES:

- Sediment load reduced by 1.13 tons/yr; Phosphorus load reduced by 3.72 lbs/yr, Nitrogen load reduced by 26.49 lbs/yr, and 260 feet of shoreline protected (Region 5 Method).
- Total local match exceeded project goal ($55,347 vs $47,128).

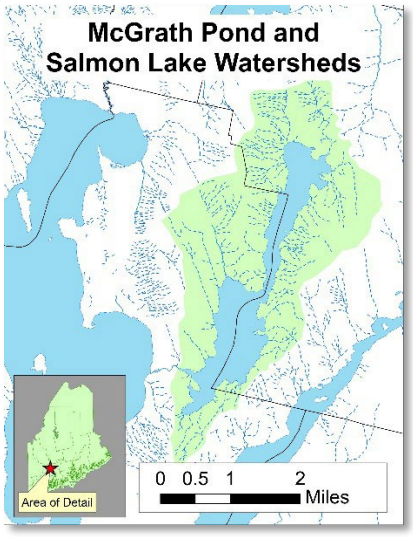

Curbing and catch basin installed at boat launch to stabilize soil and redirect runoff away from the pond

PROJECT PARTNERS:
Long Pond Association
West End Camps

CONTACT INFORMATION:
Alex Wong, DEP - (207) 694-9533, alex.wong@maine.gov
Melissa Brandt, YCSWCD – (207) 459-6914, melissabrandt@yorkswcd.org,

McGrath Pond-Salmon Lake Watershed Protection Project, Phase V
#20220003

Waterbody Name:	McGrath Pond – Salmon Lake
Location:	Oakland – Kennebec County
Waterbody Status:	Sensitive, NPS Priority Watershed
Project Grantee:	7 Lakes Alliance
Project Duration:	January 2022 – December 2023
319 Grant:	$94,270
Local Match:	$100,574



PROBLEM:

McGrath Pond and Salmon Lake are both listed on the Maine DEP's 2020 Nonpoint Source Priority Watershed List, as "Sensitive" and "Watch List/Sensitive" respectively. McGrath Pond flows into Salmon Lake, which flows downstream into Great Pond, an impaired lake listed on the federal 303(d) list.

The McGrath Pond-Salmon Lake watershed has a history of water quality problems dating back to 1926 when the Maine Dept. of Inland Fisheries and Wildlife recorded the occurrence of low dissolved oxygen. Algal blooms were reported on Salmon Lake in 1971, prompting the Maine DEP to begin studies to determine the sources of the problems. Several more blooms through the 1970's prompted additional watershed surveys and identified a large dairy farm and lumberyard as major contributors. The delivery of nutrient-laden sediment into McGrath Pond and Salmon Lake has resulted in low-levels of dissolved oxygen in deep areas of Salmon Lake, release of phosphorus from bottom sediments into the water column, and algal blooms after fall turnover (October). This is further compounded by nutrient and sediment inputs from current land uses.

PROJECT DESCRIPTION:

The purpose of this project was to significantly reduce the pollutant load to McGrath Pond and Salmon Lake through targeted implementation of BMPs at high priority NPS sites identified in the 2017 watershed survey and more recent surveys. The Phase V project resulted in the installation of BMPs at high and medium- impact town and private roads sites, the installation of BMPs on residential properties and LakeSmart evaluations. The project raised public awareness through gravel road workshops, as well as other outreach (press releases, newsletter articles, annual meetings, partner websites and social media). Meetings were held in coordination with watershed towns to address gaps in existing municipal ordinances.

Algae bloom on Salmon Lake November 2022

PROJECT OUTCOMES:

- Installed 47 BMPs at 22 road sites, including private roads, driveways, and a town road.
- YCC installed 16 BMPs at 10 residential properties.
- Sediment load reduced by 172.5 tons/yr, phosphorus load reduced by 172.5 lbs/yr, and nitrogen load reduced by 297 lbs/yr (Region 5 Method).
- LakeSmart evaluations were conducted on 25 properties by MPSLA volunteers.
- Match funding exceeded project goal ($100,574 vs $86,955).
- Two Gravel Road workshops were conducted and attended by 50 people.
- Steering Committee participation included the Towns of Belgrade and Oakland, and both support applying for another 319 grant in 2024.

PROJECT PARTNERS:
McGrath Pond – Salmon Lake Association
Town of Belgrade
Town of Oakland

CONTACT INFORMATION:
Greg Beane, DEP - (207) 299-4703, greg.e.beane@maine.gov
Laura Rose Day, 7 Lakes Alliance - (207) 495-6039, laura.roseday@7lakesalliance.org

Mousam Lake Protection Project, Phase II
#20210007

Waterbody Names:	Mousam Lake
Location:	Shapleigh/Acton - York County
Waterbody Status:	NPS Priority Watershed
Project Grantee:	York County SWCD
Duration:	January 2021 - December 2023
319 Grant Amount:	$65,994
Local Match:	$83,473

PROBLEM:

Mousam Lake is dual basin, 979-acre waterbody located in the towns of Acton and Shapleigh. The Mousam Lake watershed is 25 square miles and includes the watersheds of Goose and Loon Ponds. The shoreline of the lake is heavily developed with approximately 950 year-round seasonal residences. Other land uses in the watershed include commercial marinas, gas stations, and a few small farms. Mousam Lake was listed as an impaired lake by Maine DEP until 2006, when after a decade of nonpoint source mitigation work (partially funded through USEPA section 319 grants) in the watershed, water quality stabilized and it was delisted. Mousam is currently listed as "Threatened" on the NPS priority waterbody list due to its recent impaired status.

Numerous protection and restoration projects have been carried out at Mousam Lake over the two decades. Three Water Quality Improvement projects funded in part by USEPA under Section 319 of the Clean Water Act were completed from 2001 through 2010. During this time 20 BMPs were installed, 8 NPS sites were corrected, and 60 sites were addressed through Technical Assistance work. In 2019 the YCSWCD was awarded a Phase I 319 Watershed Implementation grant (20190010). YCSWCD partnered with ASYCC and MLRA on the grant, which funded a total of eight (8) NPS abatement projects and 15 residential matching grant projects.

ASYCC and YCSWD hosted a hands-on workshop in July 2023. The workshop highlighted BMPs such as rain gardens and infiltration trenches.

PROJECT DESCRIPTION:

The overall goal of this Phase II project was to continue efforts in reducing the pollutant load to Mousam Lake by addressing 3 priority NPS road sites and 13 residential shorefront NPS sites. Public outreach for the project included direct landowner contact, press releases, two

presentations at the MLRA annual meeting, and a BMP workshop for residents.

PROJECT OUTCOMES:

- YCSWD, with assistance from MLRA and the towns of Acton and Shapleigh, completed projects on three high-impact road NPS Sites and a private Boat Launch. BMPs included check dams, expanding a catch basin, resurfacing, and regrading a gravel road, culvert installations, and many additional BMPs.
- Through this project, an estimated 22.6 tons of sediment, 38.51 pounds of nitrogen, and 119.5 pounds of phosphorus will be prevented from washing into Mousam Lake each year (Region 5 Method).
- ASYCC installed BMPs at 13 residential shoreline sites around Mousam Lake. YCSWD, ASYCC, and MLRA conducted public outreach throughout the project, including workshops, presentations and newspaper articles.
- The project resulted in $83,473 in local match (exceeding the original work plan match by $35,940).

Before (left) and after (right) regrading road leading to boat launch with reclaimed asphalt, directing runoff into newly installed stone ditch and culvert.

PROJECT PARTNERS:

Acton-Shapleigh Youth Conservation Corps
Mousam Lake Region Association
Three Rivers Land Trust
Town of Acton
Town of Shapleigh

CONTACT INFORMATION:

Alaina Chormann, DEP – (207) 719-8086, alaina.g.chormann@maine.gov.
Shri Verrill, York County SWCD – (207) 432-3516, sverrill@yorkswcd.org

North Pond Watershed Protection Project, Phase III
#20210013

Waterbody Name: North Pond

Location: Smithfield – Somerset County

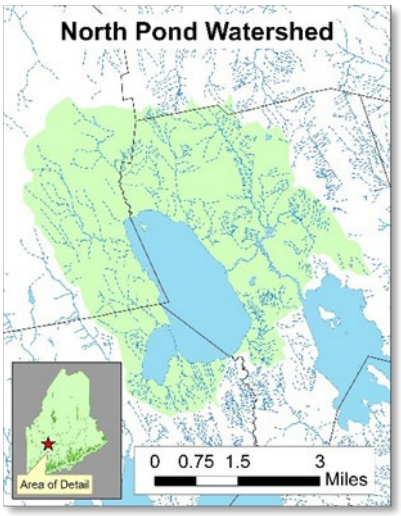
Waterbody Status: Threatened, NPS Priority Watershed

Project Grantee: 7 Lakes Alliance

Project Duration: January 2022 – December 2023

319 Grant: $104,950

Local Match: $158,693



PROBLEM:

North Pond is listed as threatened for development threat and it is now currently on the Watch List. Water quality data has been collected in North Pond since 1970. Based on these historic data, the potential for nuisance algal blooms in the lake is moderate to high, and the potential for internal loading (phosphorus leaving bottom sediments and becoming available to algae) is moderate to high. Maine DEP conducted a classification and condition analysis for Maine lakes, which classified North Pond as an "interior pond" with an "altered" watershed due to the level of human activity it contains.

North Pond exhibits high levels of total phosphorus (TP) compared to other lakes of its type. Epilimnetic TP has ranged from 10 ppb (1977) to 33 ppb (2018) with an average of 18 ppb based on data available from lakesofmaine.org over the historical sampling period (1977-2018). Due to the shallow depth of this lake (average 13 ft), it does not stratify often. This means that the temperature and dissolved oxygen levels in the lake remain constant from top to bottom, and sunlight has the potential to reach the bottom over most of the lake. Secchi disk transparency readings have ranged from 1 m (2018) to 6.3 m (1992) with an average of 4.1 m from 1970-2018. North Pond experienced a severe bloom in 2018 likely due to the elevated phosphorus concentrations documented, and thermal stratification of the water column in late July and August.

PROJECT DESCRIPTION:

The purpose of this Phase III project was to significantly reduce the external pollutant load to North Pond by addressing soil erosion and stormwater runoff that delivers excess sediments and nutrients to the lake. This was accomplished through targeted implementation of BMPs at high and medium priority NPS sites. In addition to pollutant reductions, the project raised awareness about the need for lake protection by utilizing targeted outreach strategies that will help 7 Lakes and NPA continue to work with stakeholders and partners to address additional NPS sites in the watershed.

PROJECT OUTCOMES:

- Total BMP installations exceeded estimates (67 BMPs vs 46 BMPs).
- Sediment load reduced by 253.3 tons, phosphorus load reduced by 215.2 lbs/yr, and nitrogen load reduced by 430.1 lbs/yr (Region 5 Method).
- Total match exceeded project goal ($158,693 vs $110,125).
- 7 Lakes outreach included two gravel road workshops, one Buff Enough workshop about vegetated buffers and one public meeting.
- North Pond Association outreach included two Buff Enough workshops about vegetated buffers, two presentations about the project at Annual Meetings, and one WBPP public meeting.

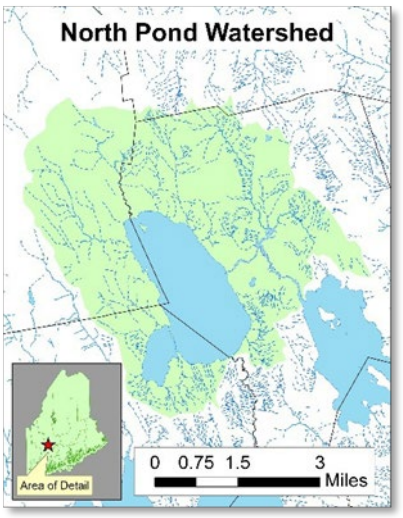
Typical dirt road BMPs at the Bacon Road site in Mercer.

PROJECT PARTNERS:
North Pond Association
Town of Mercer
Town of Rome
Town of Smithfield

CONTACT INFORMATION:
Greg Beane, DEP - (207) 299-4703, greg.e.beane@maine.gov
Laura Rose Day, 7 Lakes Alliance, (207) 495-6039, laura.roseday@7lakesalliance.org

North Pond Watershed-Based Management Plan Project
#20210010

Waterbody Name:	North Pond
Location:	Smithfield – Somerset County
Waterbody Status:	Threatened, NPS Priority Watershed
Project Grantee:	7 Lakes Alliance
Project Duration:	October 2021 – December 2023
319 Grant:	$49,600
Local Match:	$34,908



PROBLEM:

North Pond is listed as threatened for development threat and it is now currently on the Watch List. Water quality data has been collected in North Pond since 1970. Based on these historic data, the potential for nuisance algal blooms in the lake is moderate to high, and the potential for internal loading (phosphorus leaving bottom sediments and becoming available to algae) is moderate to high. Maine DEP conducted a classification and condition analysis for Maine lakes, which classified North Pond as an "interior pond" with an "altered" watershed due to the level of human activity it contains.

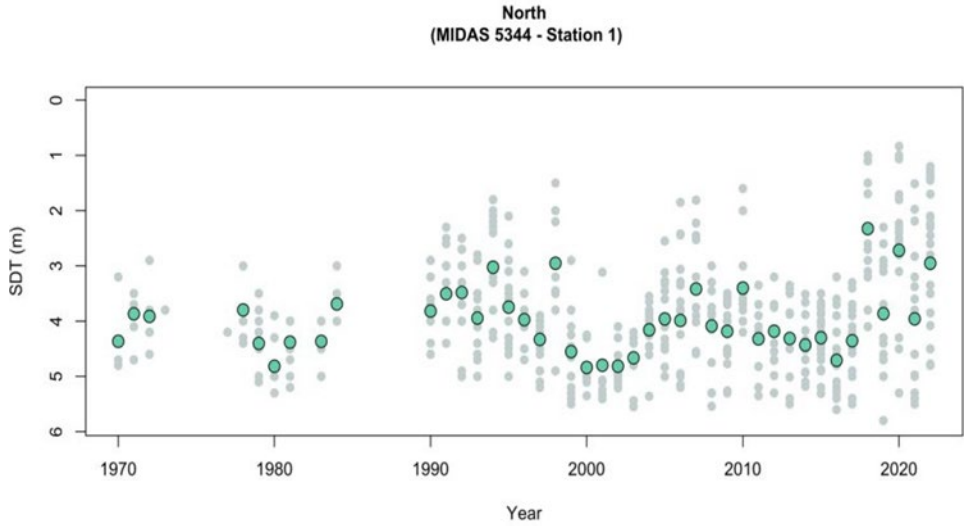
North Pond exhibits high levels of total phosphorus (TP) compared to other lakes of its type. Epilimnetic TP has ranged from 10 ppb (1977) to 33 ppb (2018) with an average of 18 ppb based on data available from lakesofmaine.org over the historical sampling period (1977-2018). Due to the shallow depth of this lake (average 13 ft), it does not stratify often. This means that the temperature and dissolved oxygen levels in the lake remain constant from top to bottom, and sunlight has the potential to reach the bottom over most of the lake. Secchi disk transparency readings have ranged from 1 m (2018) to 6.3 m (1992) with an average of 4.1 m from 1970-2018. North Pond experienced a severe bloom in 2018 likely due to the elevated phosphorus concentrations documented, and thermal stratification of the water column in late summer.

PROJECT DESCRIPTION:

The North Pond Watershed-Based Management Plan (WBMP) Project produced a comprehensive WBMP for North Pond with well-developed implementation strategies that effectively improve the water quality of North Pond over the next 10 years. The project resulted in the establishment of scientifically-sound water quality thresholds for addressing current sources of NPS in the watershed, and in-lake management strategies that address internal phosphorus recycling.

PROJECT OUTCOMES:

- The project resulted in the North Pond Watershed-Based Plan (January 2024). The scientifically- sound, community-led WBMP helped forge a strong commitment to water quality improvement among the many project partners.
- Major project outputs include: a water quality and sediment analysis, a future monitoring plan, an updated watershed and pollutant load analysis and updated land-cover data layer, an internal loading assessment and management options analysis, a municipal ordinance review and a septic system database and survey.
- Findings from the project indicate that reducing phosphorus from the direct watershed of North Pond alone will not result in desired water quality outcomes, and that additional actions are needed to address internal phosphorus loading.
- Project partners have a clear plan by which to reduce phosphorus concentrations in the lake and improve water quality over the next 10 years including building local capacity, strengthening outreach and communications, reducing new sources of NPS pollution, reducing phosphorus inputs from the watershed and conducting ongoing monitoring and assessment.



North Pond Secchi disk transparency trend (1970 – present)

PROJECT PARTNERS:
Colby College
Kennebec County SWCD
North Pond Association
Town of Mercer
Town of Rome
Town of Smithfield

CONTACT INFORMATION:
Greg Beane, DEP - (207) 299-4703, greg.e.beane@maine.gov
Dale Finseth, Kennebec County SWCD - (207) 622-7847, dfinseth@kcswcd.org

Sebago Lake Watershed Protection Project, Phase IV
#20210004

Waterbody Name:	Sebago Lake
Location:	Standish, Sebago, Naples, Casco, Raymond, Windham, Frye Island– Cumberland County
Waterbody Status:	NPS Priority Threatened Watershed, Outstanding Water Quality, Public Water System
Project Grantee:	Portland Water District
Project Duration:	April 2021 – December 2023
319 Grant:	$ 78,867
Local Match:	$ 249,293

PROBLEM:

Sebago Lake, Maine's second largest, has a surface area of 30,513 acres. Its 100 miles of shoreline is developed with 2,300 seasonal and year-round homes, four public boat launches, eight marinas, seven summer youth camps, and Sebago Lake State Park. Sebago is the primary drinking water supply for over 200,000 people in 11 communities. The direct watershed covers 171 square miles and the entire watershed is 361 square miles and includes 29 subwatersheds. Since its inception in 1908, Portland Water District (PWD) has monitored water quality and worked to protect the lake. Sebago Lake has excellent water quality, with Secchi transparency averages over 31 feet deep.

Implementation work in the direct watershed has been conducted in phases due to the large size of the lake and watershed. Through three previous phases of work, CCSWCD and PWD installed conservation practices at 42high and medium impact sites and provided technical assistance to 59 landowners. PWD staff inspected 420 properties in the lake shoreland zone. To ensure protection and implementation efforts are directed at locations with the highest potential to impact Sebago Lake water quality, a watershed assessment and prioritization for the entire Sebago Lake watershed was conducted and resulted in the *Sebago Lake and Crooked River Watershed-Based Protection Plan (2015).*

PROJECT DESCRIPTION:

The purpose of this project was to reduce erosion and the export of sediment and phosphorus to protect Sebago Lake by installing conservation practices at Camp O-At-Ka, the Standish Boat Launch and the Sebago Lake State Park and educate the community on the projects purpose and goals. Community education and involvement included a native plant demonstration project, technical assistance through site visits and small matching grants for residential properties, and project promotion in articles and newspapers.

Native Plant Demonstration project at the Town of Standish boat launch

PROJECT OUTCOMES:

- Three large scale projects were completed. At the Sebago Lake State Park, a severely eroded shoreline was stabilized using nature-based practices (described in images below), which will be monitored for years to come and lessons learned with be shared throughout the state. At Camp-O-At- Ka, an eroded gravel driveway that led to a severely eroded steep path to the lake were both stabilized with regrading, runoff diverters and a turf reinforced product. Additionally, 250 native plants were installed by PWD with support of volunteers to create a native plant demonstration site at the Standish Boat Launch
- PWD provided technical assistance to road associations and landowners through their Lakescaping Program. Assistance included free BMP installation recommendations and up to $1000 in match grant funds for residential sites and $2000 for private roads. A total of 97 site visits were conducted, and 33 landowners implemented PWD recommendations and qualified for matching grants.
- The above projects reduced annual pollutant loading to Sebago Lake by an estimated 66.42 tons of sediment and 56.47 pounds of phosphorus and stabilized 385' of shoreline (Region 5 Method).
- The project generated an astounding $249,293 in match, which greatly exceeded the project's original work plan of $173,450. In-kind match included 428 hours of the Sebago Lake State Park staff and roughly 1,500 hours from PWD staff.

"Before" photo on the left shows exposed roots on the Sebago Lake shoreline. Approximately 10,500 square feet of shorefront had been lost due to erosion between 2002 and 2015. "After" photo on the right show's conditions after the installation of nature-based shoreline stabilization practices, which included the use of engineered log jams, vertical aggradation rootwad structures, post-assisted wicker weaves, brush aggradation bundle structures, fabric encapsulated soil lifts, and planting live stakes.

PROJECT PARTNERS:

Cumberland County SWCD
Sebago Lake State Park
Camp O-At-Ka
Town of Standish
Volunteers (Idexx, Sebago Clean Waters, Residents)
Tighe & Bond

CONTACT INFORMATION:

Carina Brown, PWD - (207) 774-5961, cbrown@pwd.org
Paul Hunt, PWD - (207) 774-5961, phunt@pwd.org, www.pwd.org
Heather Huntt, CCSWCD - (207) 892-4700, hhuntt@cumberlandswcd.org
Addie Halligan, DEP - (207) 441-9057, addie.halligan@maine.gov

Square Pond Watershed Protection Project, Phase III
#20210002

Waterbody Name: Square Pond

Location: Acton – York County

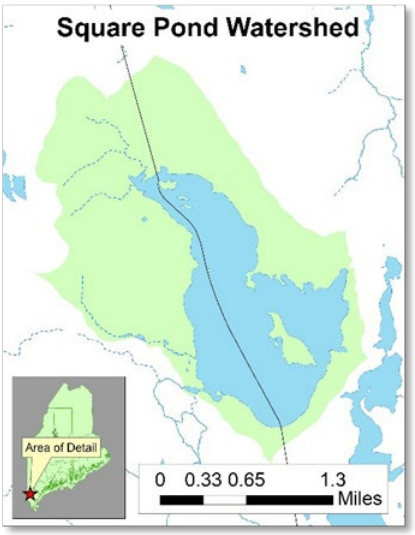
Waterbody Status: Threatened, NPS Priority Watershed

Project Grantee: York County SWCD

Project Duration: January 2021 – December 2023

319 Grant: $93,661

Local Match: $87,079



PROBLEM:

Square Pond is approximately an 877-acre lake with a 5.9 square mile watershed in Acton and Shapleigh. The pond includes Treasure Island and flows into Goose Pond which then flows into Mousam Lake. It has an average depth of 20 feet, a maximum depth of 44 feet and an extremely slow flushing rate of 0.27 times per year. The shoreline is heavily developed with over 500 residences, and is flanked on the east by a gravel pit and on the west side by a small Christmas Tree farm. Approximately 80 homes are located on Treasure Island and the residents operate their own ferry service to the island, which does not have formal roads nor automobiles.

Water quality data has been collected by the Maine Department of Environmental Protection (MDEP) and Square Pond Improvement Association (SPIA) volunteers since 1983. It is a clear lake (avg. color 8 SPU) with an average Secchi disk transparency well above the state average, at 7.5 m (24.6 ft). Total phosphorus concentrations range between 6 – 9 parts per billion (ppb) with an average of 5 ppb, while Chlorophyll a concentration range between 1.9 ppb to 10 ppb with an average of 2.6 ppb. The pond is sensitive to internal phosphorus loading due to its sediment composition.

PROJECT DESCRIPTION:

The purpose of this project was to significantly reduce the pollutant load to Square Pond by addressing soil erosion and stormwater runoff that deliver excess sediments and nutrients to the lake. This was accomplished through targeted implementation of best management practices at 4 high and medium priority sites identified in the 2019 Square Pond Watershed Survey. Sixteen residential matching grants projects were also completed. The project raised awareness about the need for continued lake protection through two workshops, two articles in the local newspaper, and presentations at SPIA annual meetings.

PROJECT OUTCOMES:

- Sediment load reduced by 38.05 tons/yr, phosphorus load reduced by 32.34 lbs/yr, and nitrogen load reduced by 64.67 lbs/yr (Region 5 Method).
- Total match exceeded project goals by over $20,000 ($87,079 vs $62,539).

Infiltration pathway installed at the Town Beach

PROJECT PARTNERS:
Acton-Shapleigh Youth Conservation Corps
Square Pond Improvement Association
Town of Acton
Town of Shapleigh

CONTACT INFORMATION:
Alex Wong, DEP - (207) 694-9533, alex.wong@maine.gov
Shri Verrill, YCSWCD – (207) 432-3516, sverrill@yorkswcd.org

Appendix A. NPS Grant Projects Closed in 2023

Project Title	Project ID#	Grantee	319/604b Grant Funds	Non-federal Match	Completion Date
Damariscotta Lake Watershed Protection Project, Phase II	20210009	Midcoast Conservancy	$31,535.00	$25,330.00	12/31/2023
Great Pond Watershed Restoration Project, Phase I	20220001	7 Lakes Alliance	$109,430.00	$140,250.00	12/31/2023
Lake Anasagunticook Watershed Protection Project, Phase II	20210001	Oxford County SWCD	$51,655.00	$34,444.00	8/21/2023
Long Pond Watershed Protection Project, Phase I	20210008	York County SWCD	$70,610.00	$55,347.35	12/31/2023
McGrath Pond - Salmon Pond Lake Watershed Protection Project, Phase V	20220003	7 Lakes Alliance	$94,270.00	$86,955.00	12/31/2023
Mousam Lake Watershed Protection Project - Phase II	20210003	York County SWCD	$65,994.00	$47,533.00	12/31/2023
North Pond Watershed Based Management Plan	20210010	Kennebec County SWCD	$49,600.00	$34,908.00	12/31/2023
North Pond Watershed Protection Project, Phase III	20210013	7 Lakes Alliance	$104,950.00	$110,125.00	12/31/2023
Sebago Lake Watershed Protection Project - Phase IV	20210004	Portland Water District	$79,043.32	$94,407.00	12/31/2023
Square Pond Protection Project Phase III	20210002	York County SWCD	$93,661.00	$62,539.00	12/31/2023
			$750,780.00	$691,838.35	

Appendix B. Active NPS Grant Projects

Project Title	Project ID#	Grantee	319/604b Grant Funds	Non-federal Match	Expected Completion Date
Adams Pond and Knickerbocker Lake Protection Project, Phase IV	20230010	Boothbay Region Water District	$149,795.00	$146,787.00	12/31/2026
Androscoggin Lake Watershed Protection Project, Phase I	20240007	30 Mile River Watershed Association	$149,730.00	$101,273.00	12/31/2026
Branch Lake Watershed Protection Project, Phase III	20230005	Hancock County SWCD	$112,483.00	$100,709.00	12/31/2025
China Lake Watershed Restoration Project, Phase III	20240004	Kennebec County SWCD	$100,068.00	$85,924.00	12/31/2026
Cobbossee Lake Watershed Protection Project, Phase III	20220005	Cobbossee Watershed District	$93,847.00	$63,800.00	12/31/2024
Cross Lake Watershed Restoration Project, Phase I	20210012	County of Aroostook	$212,300.00	$135,609.00	12/31/2024
Georges Pond Watershed Protection Project, Phase II	20220004	Georges Pond Association	$84,265.00	$56,622.00	12/31/2024
Goodall Brook Watershed Restoration Project, Phase III	20220013	City of Sanford	$61,870.00	$81,761.00	12/31/2025
Goosefare Brook Watershed Restoration Project, Phase IV	20220012	City of Saco	$147,740.00	$180,946.00	12/31/2025
Great Pond Watershed Restoration Project, Phase II	20240002	7 Lakes Alliance	$124,270.00	$165,850.00	12/31/2026
Hogan-Whitney Ponds Watershed Protection Project, Phase II	20230006	Oxford County SWCD	$77,910.00	$55,500.00	12/31/2025
Kennebunk River Watershed Restoration Project, Phase I	20220007	York County SWCD	$88,248.00	$59,192.00	12/31/2024
Lake Pennesseewassee Watershed Protection Project, Phase II	20240006	Oxford County SWCD	$94,682.00	$67,830.00	12/31/2025
Long Pond Watershed Restoration Project, Phase V	20230001	7 Lakes Alliance	$112,550.00	$126,498.00	12/31/2025
Lower Aroostook River Tributaries Assessment and Watershed-based Plan for Amsden, Gray, Hacker, and McHugh Brooks	20210011	Central Aroostook SWCD	$42,274.00	$17,339.00	12/31/2024
Mare Brook Watershed Restoration Project, Phase I	20230003	Town of Brunswick	$149,850.00	$137,489.00	12/31/2025
Meduxnekeag River Watershed Restoration Project, Phase II	20240005	Southern Aroostook SWCD	$32,228.00	$22,890.00	12/31/2026

Messalonskee Lake Watershed Protection Project, Phase II	20230002	7 Lakes Alliance	$111,884.00	$123,795.00	12/31/2025
North Pond Watershed Protection Project, Phase IV	20240003	7 Lakes Alliance	$112,410.00	$114,350.00	12/31/2026
Ogunquit River Watershed Restoration Project, Phase IV	20210014	Town of Ogunquit	$61,990.00	$43,496.00	12/31/2024
Pleasant River Restoration Project Phase II	20210005	Cumberland County SWCD	$155,030.00	$96,865.45	12/31/2024
Sebago Lake Watershed Protection Project, Phase V	20240001	Portland Water District	$156,370.00	$158,804.00	12/31/2025
Sebasticook Lake Watershed- based Management Plan	20220010	Town of Newport	$49,908	$47,196.00	12/31/2024
Spruce Creek Watershed-based Management Plan Update	20220011	Town of Kittery	$34,324	$31,625.00	12/31/2024
Togus Pond Watershed Protection Project, Phase IV	20230011	Kennebec County SWCD	$92,250.00	$71,899.00	12/31/2026
Topsham Fair Mall Stream Restoration Project, Phase III	20220008	Town of Topsham	$153,479.00	$102,629.00	12/31/2024
Torsey Pond Watershed Protection Project, Phase I	20230004	Cobbossee Watershed District	$80,391.00	$53,721.00	12/31/2025
Trickey Pond Watershed Protection Project	20220006	Cumberland County SWCD	$75,811.26	$52,599.28	12/31/2024
Trout Brook Watershed Restoration Project, Phase IV	20220002	Cumberland County SWCD	$45,801.00	$31,081.00	12/31/2024

Appendix C: NPS Program Five-year Objectives, Actions, and Annual Milestones

This section provides the five-year objectives, actions, and milestones for Maine's NPS program for the years 2020 through 2024. Tables 10 and 17 focuses on DEP's NPS Program administration and its watershed approach to improve and protect water quality. Tables 11 to 16 list objectives for Maine's statewide approach to address six major NPS pollution categories: developed areas, agriculture, transportation, forestry, subsurface wastewater disposal, and hydrologic and habitat modification.

Table 10. Watershed Approach Lead Agency: Maine DEP				Schedule Planned (X #) Actual (✓ #)					
Five-Year Objectives	**Actions**	**Lead Contact**	**Milestones**	**2020**	**2021**	**2022**	**2023**	**2024**	**2023 Accomplishments and Outputs**
1. Prioritization List: Identify NPS Priority Watersheds and evaluate NPS priority lists biennially or more frequently as new information becomes available.	• Evaluate NPS priority watersheds lists and criteria biennially or more frequently as needed. Announce public opportunity to submit requests and support for waterbodies to be added to the priority lists. • Update priority lists and decision tree as needed- add or remove individual waterbodies as new information becomes available. • Notify towns, planning commissions, shellfish committees, and other stakeholders about new or removed NPS priority watersheds. • Develop map and post on DEP webpage. Share with partners, including DEP Land Bureau.	Alaina Chormann, DEP	1. Update NPS priority watershed list and map.	X ✓		X	 ✓	X	Published revised list in 2023 (carried over from 2022); started organizing for 2024 revisions.
2. Prioritization Criteria: Identify additional prioritization criteria & waters for addition to the NPS Priority Watersheds list and/or for targeted outreach.	• Develop Most Vulnerable Lakes list and associated criteria (considering factors including climate change, sediment chemistry, lake morphometry, anoxia potential, and land use). • Develop and document methods to evaluate waters particularly impacted or threatened by agriculture, forestry and other NPS sources.	Alaina Chorman, DEP	2. Develop Most Vulnerable Lakes list.		X				FFY2021 milestone not yet complete, though work continued on the model in FFY2023 to address problems.

Table 10. Watershed Approach Lead Agency: Maine DEP				Schedule Planned (X #) Actual (✓ #)					
Five-Year Objectives	**Actions**	**Lead Contact**	**Milestones**	**2020**	**2021**	**2022**	**2023**	**2024**	**2023 Accomplishments and Outputs**
3. Assessment: Conduct water quality monitoring to support future NPS watershed planning and project development.	• Evaluate data collected by DEP, LSM, and other partners. • Coordinate with local partners to conduct supplemental water quality monitoring, biological monitoring, and bracket sampling. • Consult with partners and use Stream Stressor Guidance document to evaluate and identify primary stressors.	Jeff Dennis, DEP	3. Conduct Supplemental monitoring in at least three watersheds/yr.	3 **6**	3 **3**	3 **4**	3 **11**	3	Conducted monitoring in Alder Brook, Aroostook River, Barberry Creek, Goose Rocks Beach Watershed (Little River, Batson River, Smith Brook & tribs), Goosefare Brook, Gully Brook, Howard Brook, Logan Brook, Stroudwater River, Trout Brook (including Kimball Brook)
4. Assessment: Develop State agency and partner capacity to use Microbial Source Tracking to identify and track bacteria sources in streams and marine waters.	• Reach out to Maine and regional labs and compile list of ones with MST analysis capabilities. • Consult with regional experts to create protocol needed to store and transport samples for future MST analysis. • Assess existing DEP lab equipment and explore procurement of equipment needed to filter and freeze samples. • Use above protocol to store/transport DEP and partner water samples. Use resulting MST data to investigate and address bacteria sources.	Meagan Sims, DEP *Partners: DMR*	4. Develop MST storage and transport SOP in 2020 and start using by 2021.	X	X		✓		Surface Water Field Sample Collection, Transport, Filtration, and Storage for Microbial Source Tracking SOP completed in FFY2023 for expected use in 2024.
5. Assessment: Streamline and facilitate watershed survey data collection, sharing and analysis through expanded use of mobile apps.	• Explore, promote, and transition to using Survey123 or other mobile data collection tools during watershed surveys.	Addie Halligan, DEP	5. At least one survey in 2020, two surveys in 2021 and 50% of watershed surveys use mobile data collection tools by 2022.	1 **6**	2 **5**	4 ✓	5 ✓	X	DEP assisted with five watershed surveys in 2023: Monson Pond, Sebasticook Lake, Springy Pond, Taylor Pond, and Thompson Pond. All five used Survey123 to collect survey data.

Table 10. Watershed Approach Lead Agency: Maine DEP				Schedule Planned (X #) Actual (✓ #)					
Five-Year Objectives	**Actions**	**Lead Contact**	**Milestones**	**2020**	**2021**	**2022**	**2023**	**2024**	**2023 Accomplishments and Outputs**
6. Planning: Incorporate climate change and resilience planning into watershed-based planning.	• Review existing information (e.g., Hazard Mitigation Plans), assess stream culverts during watershed assessments and incorporate in WBPs. • Use available planning tools and resources to identify other potential climate impacts to consider during WBP projects (e.g., sea level rise, vulnerable septic systems, marsh migration, cold water refugia) and incorporate into WBPs. • Incorporate information on climate change impacts into watershed survey training.	Greg Beane, DEP	6. Review tools and incorporate into pilot WBP planning project by 2021. All new WBPs include section on climate change by 2022.		X **X**	X **X**	X **X**	X	All WBP Plans incorporate climate change impacts.
7. Restoration Planning: Approve nine-element watershed-based plans (new or updates) that guide local actions to restore impaired waters.	• Provide decision makers with information needed to develop sound WBPs including data necessary to determine the dominant stressors contributing to the impairment, and sufficient watershed and stream corridor information to identify and prioritize specific implementation activities needed to restore the waterbody.	Alex Wong, DEP	7. Approve ten nine-element WBPs.	2 **3**	2 **3**	2 **6**	2 **1**	2	Nine-element plan(s) approved for North Pond. Overall goal attained in FFY2022; milestone complete.
8. Protection Planning: Approve alternative WBPs (new or updates) that guide protection of unimpaired waters.	• Working with partners, provide technical assistance for the development of lake watershed-based protection plans. Coordinate to secure EPA approval of alternative WBPs.	Alex Wong, DEP	8. Approve 15 alternative WBPs.	3 **7**	3 **2**	3 **3**	3 **1**	3	Alternative plan accepted: Androscoggin Lake.

Table 10. Watershed Approach Lead Agency: Maine DEP				Schedule Planned (X #) Actual (✓ #)					
Five-Year Objectives	**Actions**	**Lead Contact**	**Milestones**	**2020**	**2021**	**2022**	**2023**	**2024**	**2023 Accomplishments and Outputs**
9. Planning: Promote and support watershed assessment and planning for threatened streams.	• Assess water quality data and watershed conditions to identify stressors for Falmouth's threatened streams. Develop protection strategy for each stream that identify BMPs and actions for addressing existing and future likely stressors. • Promote/pursue development of similar protection strategies with other communities with threatened streams.	Kristin Feindel, DEP	9. Develop Stream Protection Strategy for Falmouth streams by 2020.	X ✓					Milestone completed in 2020. DEP continues to support Falmouth's stream protection efforts in helping prioritize streams and protection efforts, such as pesticide and fertilizer ordinances.
10. Planning: Promote collaboration and planning for projects that maintain open shellfish harvesting areas or restore closed shellfish harvesting areas, reduce coastal beach advisories, and mitigate other NPS impacts to coastal waters.	• Convene coastal work group and conduct annual meetings to share information and identify and collaborate on shared priorities. • DEP, DMR, Maine Coastal Program, and MPAP will collaborate to support shared priorities through the NOAA-funded Coastal Community Grants program. DEP and DMR will review proposals and provide technical support to selected projects.	Addie Halligan, DEP *Partners: MCP, DMR, DACF - MPAP*	10. CCG grant program funds at least one planning project per year in DEP NPS Priority Watersheds	1 **1**	1 **1**	1 **1**	1 **1**	1	DEP convened coastal work group meeting in Mar 2023. CCG funded planning project for Spruce Creek in Kittery.
11. Protection: Focus NPS program on watershed protection priorities and highlight the	• Work proactively with partners to protect lakes on DEP's Watch List and Most Vulnerable Lakes list (see #2 above) with the goal of keeping off the impaired list.	Alex Wong, DEP	11. Incorporate summary of work on protection priorities into		X ✓	X ✓	X ✓	X	Summary of lake protection work on DEP's Watch List incorporated into Annual Report (see page 18).

Table 10. Watershed Approach Lead Agency: Maine DEP				Schedule Planned (X #) Actual (✓ #)					
Five-Year Objectives	**Actions**	**Lead Contact**	**Milestones**	**2020**	**2021**	**2022**	**2023**	**2024**	**2023 Accomplishments and Outputs**
value of these protection efforts.	• Report to EPA annually on Maine's protection efforts including work on Most Vulnerable Lakes.		NPS Annual Report.						
12. Restoration: Fully or partially restore four NPS impaired waterbodies and submit to EPA as NPS Success Stories.	• Provide technical support and funding through Section 319 grant program to support implementation of WBPs for waters with high potential to be restored. • Collect targeted water quality and biological information to determine if water classification standards have been met. • Prepare NPS Success Stories that document the restorations.	Alex Wong, DEP	12. Four NPS success stories approved for partially or fully restored waterbodies.		1		2	1	DELAYED. 2018/2020/2022 Integrated Report did not de-list any lakes due to data transmission. Data were submitted to DEP in 2023, analyzed, and incorporated into draft 2024 IR. Three lakes were identified as candidates for success stories in FY24.
13. Substantial Improvement: Demonstrate substantial improvement in water quality and/or ecological condition in two NPS impaired waterbodies.	• Provide technical support and funding through NPS Section 319 grant program to support implementation of WBPs for impaired waters. • Collect targeted water quality and biological information to determine the effectiveness of implementation efforts and guide WBP modifications. • Evaluate data to determine if water classification standards have been met or if there has been substantial incremental improvement. • Prepare NPS Success Stories that document the substantial improvement in water quality and/or ecological condition.	Alex Wong, DEP	13. Two NPS success stories approved that show progress toward achieving water quality goals (Type 2) or ecological restoration (Type 3).		1 **2**		1		Milestone met.

Table 10. Watershed Approach Lead Agency: Maine DEP				Schedule Planned (X #) Actual (✓ #)					
Five-Year Objectives	**Actions**	**Lead Contact**	**Milestones**	**2020**	**2021**	**2022**	**2023**	**2024**	**2023 Accomplishments and Outputs**
14. Restoration/ Protection: Promote local efforts to maintain open shellfish harvesting areas or restore closed shellfish harvesting areas.	• DMR meets with coastal towns, local shellfish committees, and other partners to encourage local action (Fisherman's Forum, shellfish committees, or town meetings). • DEP creates Medomak River case study and guidance for investigating and addressing bacteria sources. Materials incorporated into electronic version of Maine Shellfish Handbook.	Addie Halligan, DEP	14. Create Medomak River case study and bacteria investigation/ mitigation guidance.		X				PROJECT POSTPONED INDEFINITELY

Table 11. Developed Areas Lead Agency: Maine DEP				Schedule Planned (X #) Actual (✓ #)					
Five-Year Objectives	**Actions**	**Lead Contact**	**Milestones**	**2020**	**2021**	**2022**	**2023**	**2024**	**2023 Accomplishments and Outputs**
1. Require and promote the use of effective erosion and sediment control BMPs during soil disturbance activities.	• Update Chapter 305 of the Natural Resource Protection Act to improve erosion and sediment control standards for soil disturbance, instream work and other sections, as needed. • Update ESC BMP Manual to reflect current approaches. Create in a format that can be easily accessed in the field.	Mark Stebbins, DEP	1. NRPA rule-making completed in 2021 and ESC BMP Manual updated in 2022.		X	X			DELAYED - PL 2023, Ch. 97 became effective 10/25/23 which directed the Department to undertake rulemaking to amend Ch. 305 to allow for the use of biodegradable stabilization materials in sand dune restoration projects. Expected completion of rulemaking in 2024. Current standards and BMP Manual remain in effect.
2. Implementation and update of Chapter 1000 Shoreland Zoning to strengthen water quality protection at the local level.	• Work with municipalities with older shoreland zoning ordinances to implement most recent standards. • Review and update Chapter 1000 for areas of possible clarification and improvement, including ESC, buffer standards, contractor certification requirements.	Colin Clark, DEP	2. Shoreland Zoning rule-making completed	X					Postponed Indefinitely. Given current staffing shortages, DEP's Land Bureau did not undertake this effort in 2023.
3. Update Chapter 500 Stormwater Rules to reduce water quality impacts from new or redevelopment projects.	• Initiate stakeholder process to review Chapter 500 for areas for possible clarification and improvement, including natural hydrology and LID/green infrastructure, recertification, and chloride. • Develop draft rules and release for public comment with adoption by 2022.	Kerem Gugnor, DEP	3. Stakeholder process completed in 2021 and Revised rules adopted in 2023.		X	X	✓		RFP for professional facilitation services issued, contract awarded. Initial stakeholder process started, rule changes discussed and drafted by group. Expected completion of rulemaking in 2024.
4. Regularly update the Maine Stormwater BMP	• Evaluate proposals for new or modified BMPs for approval under Chapter 500 Stormwater Rules.	Dave Waddell, DEP	4. List of new approved BMPs.	X ✓	X ✓	X ✓	X	X	PerkFilter® and BioPod™ were evaluated in 2023, but not approved. Work is continuing

Table 11. Developed Areas Lead Agency: Maine DEP				Schedule Planned (X #) Actual (✓ #)					
Five-Year Objectives	**Actions**	**Lead Contact**	**Milestones**	**2020**	**2021**	**2022**	**2023**	**2024**	**2023 Accomplishments and Outputs**
manual to reflect the current best management practices.	• Conduct annual review and regularly update the Maine Stormwater BMP manual to reflect current science and guidance.								by the manufactures to attain approval.
5. Evaluate stormwater and ESC BMPs and develop guidance about climate change resiliency and adaptation planning.	• Review stormwater and ESC BMPs for climate resiliency and adaptation considerations, including storm sizing and modifications needed for areas with rising groundwater and sea level. • Create appendix for Stormwater Manual that includes design considerations and available tools.	Mark Stebbins, DEP	5. Create an appendix for Stormwater Manual.		X				DELAYED. Development of the Stormwater Manual has been tabled pending the Chap. 500 rule revisions in 2024.
6. Provide guidance to State and local regulators, developers, and other partners about BMP selection to target specific localized resource concerns.	• Review stormwater BMPs for nitrogen removal efficiencies and identify additional BMPs to consider adding to the manual. • Develop a crosswalk to highlight BMPs most appropriate and inappropriate for different waterbodies and stressors (e.g., no infiltration for small streams with high commercial development, nitrogen removal BMPs for coastal watersheds). • Incorporate crosswalk into BMP manual and share with partners for use in WBPs and project reviews.	Jeff Dennis, DEP	6. Complete Crosswalk table in 2020. Provide training to DEP Land Bureau on using crosswalk for project reviews in 2021.	X	X		✓		
7. Provide training and certification to encourage proper use of ESC BMPs by contractors and other installers.	• Conduct Basic and Advanced Sediment Control training workshops. • Administer the ESC Certification Program and maintain or increase the number of people certified to 2,500 (2,374 in 2019).	John Maclaine, DEP	7. Train at least 500 people and at least 2,500 people with program certification/yr.	500 trained/yr 2,500 certified/yr 348 2,540	401 2,676	486 2,959	631, 2,928		Trained 488 individuals in-person and 143 online and with 2,928 individuals certified in the program for 2023. See Section IV.B. for more details.

Table 11. Developed Areas Lead Agency: Maine DEP				Schedule Planned (X #) Actual (✓ #)					
Five-Year Objectives	**Actions**	**Lead Contact**	**Milestones**	**2020**	**2021**	**2022**	**2023**	**2024**	**2023 Accomplishments and Outputs**
8. Develop additional trainings and supplemental training materials to enhance contractor and installer understanding and ability to properly install BMPs.	• Develop additional online trainings and approve/add third-party trainings to facilitate recertification process. • Create and post short instructional, demonstration videos about BMPs and NPS-related issues (e.g., silt fence installation).	John Maclaine, DEP	8. Add one course per year and create three videos in 2020 and 2023.	1 **10** 3 **0**	1 **1** **4**	1 **5** 3 **2**	1 **8** **0**	1	Created specialized courses in inland shoreline stabilization, winter BMPs, Land Use Regulations, Stream Crossing Installation Techniques, and BMPs for Landscapers. See Section IV.B. for more details.
9. Provide municipalities with NPS training, technical support, and resources to prompt and improve water resource protection.	• Develop training and certification program for municipal officials and inspectors. • Certify municipal officials and inspectors to review BMPs for proper use and installation.	John Maclaine, DEP	9. Develop Certification program in 2020. At least 20 municipal officials certified/year beginning in 2021.	X ✓	20 **32**	20 **24**	20 **42**	20	Trained southern Maine public works departments and water districts: employees, town managers, various CEOs. Trained DEP response staff on erosion control practices during spill response.
10. Encourage municipalities to consider water resources in local planning decisions.	• Provide information to municipalities starting to develop or update Comprehensive Plans. • Review draft Comp Plans for consistency and completeness and provide feedback about ways to strengthen local efforts to protect and restore water quality.	Alex Wong, DEP	10. DEP provides feedback on at least four comp plans/year.	4 **9**	**4** **10**	4 **9**	4 **5**	4	Completed reviews of 5 comprehensive plans for Bangor, Brooklin, Prospect, Rome, and York

Table 12. Statewide Approach - Agriculture Lead Agency: Maine DACF				Schedule Planned (X #) Actual (✓ #)					
Five-Year Objectives	**Actions**	**Lead Contact**	**Milestones**	**2020**	**2021**	**2022**	**2023**	**2024**	**2023 Accomplishments and Outputs**
1. Monitor agricultural operations to ensure compliance with the requirement to implement approved nutrient management plans (NMP).	• Evaluate agricultural operations (AOs) to determine if they need to develop and implement an approved NMP. • Track existing AOs with an approved NMP to ensure that their NMP is up-to-date. • Provide guidance for initial development of an NMP or for facilitating updates as needed. • Continue to identify AOs that need an NMP and help AOs comply with the obligation to operate according to an NMP. • Publicize updates to the Nutrient Management Rules, including stream exclusion requirement. • Coordinate with NRCS and DEP Shoreland Zoning to align programs regarding stream exclusion.	Mark Hedrich, DACF	1. 90% of NMPs that are due for renewal are updated within six months of expiration.	90 **56**	90 **50**	90 **57**	90 **52**	90	There are 292 active Nutrient Management Plans (NMPs) and 23 needed renewal. Of these, 12 were updated and 5 received variances.(Note:12 total variances issued. 35 scheduled updates not needed because out of business or insufficient animal units to require a Plan
2. Coordinate training and certification program for Nutrient Management Planning Specialists.	• Provide certification and recertification training opportunities for certified planners. • Update test and training manual to reflect updated nutrient management rules.	Mark Hedrich, DACF	2. Update NMP test in 2021 and update NMP training manual by 2024.	✓	X			X	Training manual partially updated in 2023, with completion scheduled for 2024.
3. Monitor livestock agricultural operations to ensure compliance with requirement to operate according to a Livestock	• Evaluate new or expanded agricultural operations (AOs) to determine their requirement for obtaining a LOP. • Continue to identify AOs that need a LOP and help AOs comply with the obligation to operate according to a LOP.	Mark Hedrich, DACF	3. 75% of farms needing LOPs are developed within nine months.	75 **63**	75 **40**	75 **50**	75 **47**	75	There are 17 active LOPs, and 7 needed updates. Of these, 1 LOP was provisional. 2 LOP updates. 4 LOP updates pending. 1 provisional LOP update in progress.

Table 12. Statewide Approach - Agriculture Lead Agency: Maine DACF				Schedule Planned (X #) Actual (✓ #)					
Five-Year Objectives	**Actions**	**Lead Contact**	**Milestones**	**2020**	**2021**	**2022**	**2023**	**2024**	**2023 Accomplishments and Outputs**
Operations Permit (LOP).	• Evaluate farms to determine if they are considered a Concentrated Animal Feeding Operation (CAFO) as defined by state or federal regulations. • Initiate steps for appropriate permitting of these entities as needed. • Conduct annual inspections of CAFOs to determine compliance with terms of the LOP.								5 farms need follow-up as potential CAFOs. Two CAFO inspections done. Most CAFO inspections not held due to, staff time not available.
4. Provide agricultural operations with up to date information on BMPs.	• Update the Manual for Best Management Practices for Maine Agriculture.	Mark Hedrich, DACF	4. Complete update of BMP manual.				X		Two sections of BMP Manual updated. Additional updates to be completed as needed
5. Implement the Agricultural Compliance Program to resolve water quality-related complaints (30 visits conducted in 2018).	• Investigate complaints concerning farm operations that involve threats to human or animal health and safety, and to the environment. • Prescribe new or modified site-specific BMPs where needed to resolve the issue, particularly water-quality-related matters. • Complete site visit reports to document complaints received and resolutions. Provide reports to DEP semiannually. • DEP prepares annual summary of water quality complaints received, investigated and resolved and shares with DMR, DEP, NRCS, NMRB.	Matt Randall, DACF	5. Resolve 25% of sites with water quality issues within 30 days; 50% within 90 days; and 75% within 180 days.	X ✓	X **n/a**	X **n/a**	X **n/a**	X	There were 0 complaints related to water quality issues in 2023. DACF continues to see results from proactive technical assistance.
6. Promote the use of BMPs with horse farms and other small hobby farms.	• Convene at least one meeting with DACF, Cooperative Extension, SWCDs, NRCS, DEP and other stakeholders to develop an outreach strategy for hobby farms.	Alex Wong, DEP	6. Hold stakeholder meeting held in 2020. Pursue	X ✓		X			DELAYED. Implementation of at least one strategy (livestock exclusion fencing) planned for 2024.

Table 12. Statewide Approach - Agriculture Lead Agency: Maine DACF				Schedule Planned (X #) Actual (✓ #)					
Five-Year Objectives	**Actions**	**Lead Contact**	**Milestones**	**2020**	**2021**	**2022**	**2023**	**2024**	**2023 Accomplishments and Outputs**
	• Implement at least one identified strategy.		at least one stakeholder-recommended outreach strategy by 2022.						
7. Collaborate with NRCS and EPA in the NWQI program to make progress restoring impaired waters with agricultural NPS sources.	• Evaluate water quality information for Oliver Brook and Meduxnekeag River NWQI. • Provide information to NRCS for project close-out of the Unity Pond, Halfmoon Stream & Sandy Stream subwatersheds, and Nickerson Lake - Meduxnekeag River subwatershed projects. • Support development of NRCS Watershed Assessments for Readiness Phase of Sheepscot River and Cross Lake NWQI projects. • Conduct monitoring before NWQI implementation in new NWQI watersheds.	Alex Wong, DEP	7. Prepare Oliver Brook water quality summary (post implementation) in 2020. Develop monitoring plan for one Readiness Phase watershed in 2020 and conduct water quality monitoring in 2021.	X ✓	X ✓				Milestones met. DEP will continue monitoring in the Dickey Brook subwatershed of the Cross Lake NWQI during regular regional rotational sampling, which is slated for 2024.
8. Coordinate and communicate with DACF, SWCDs, NRCS, and industry groups (e.g., Maine Potato Board) on	• Attend NRCS State Technical Committee meetings. • Participate in SWCD local working group meetings and Natural Resource Assessments to share DEP priorities and opportunities for NRCS program support.	Alex Wong, DEP	8. Attend at least five local working group meetings/year in a variety of regions in the state and meet	X ✓	X ✓	X ✓	X ✓	X	DEP participated in State Technical Committee meeting and attended 8 local working group meetings in 2022: Cumberland/York, Androscoggin, Penobscot, Kennebec/Lincoln-Knox

Table 12. Statewide Approach - Agriculture Lead Agency: Maine DACF				Schedule Planned (X #) Actual (✓ #)					
Five-Year Objectives	**Actions**	**Lead Contact**	**Milestones**	**2020**	**2021**	**2022**	**2023**	**2024**	**2023 Accomplishments and Outputs**
water quality priorities.	• Reach out to the various industry boards and councils to raise awareness of water quality issues related to their industry including nonattainment watersheds.		with at least one industry group/year.						Southern Aroostook, and Central Aroostook.
9. Increase field crop agriculture's use of soil health practices to reduce soil erosion, improve water quality, and offset carbon emissions.	• Reach out to various stakeholders at the state and local level and explore ways to address agriculturally derived water quality impairment issues.	Tom Gordon, DACF	9. Hold meeting held between DEP, DACF and NRCS to discuss agriculture and water quality impacts.	X	✓				Milestone to hold meeting and discussion have been met.

Table 13. Statewide Approach - Transportation Lead Agency: Maine DOT				Schedule Planned (X #) Actual (✓ #)					
Five-Year Objectives	**Actions**	**Lead Contact**	**Milestones**	**2020**	**2021**	**2022**	**2023**	**2024**	**2023 Accomplishments and Outputs**
1. Continue using Erosion and Sedimentation Control BMPs on applicable Maine DOT projects.	• Continue to implement and enforce Maine DOT Standard Specification 656. • Continue ongoing ESC training for Maine DOT staff and contractors. • Annual Stormwater MOA report submitted to MDEP summarizing Maine DOT activities as required by the Stormwater MOA between DEP and Maine DOT.	Cindy Dionne, Maine DOT	1. Train at least 25 contractors/ year and 100 DOT employees/ year	25 contractors & 100 employees trained/yr **62 employees**		**64 employees**	**41 employees**	**135 employees**	Maine DOT continues to implement "Standard Specification 656: Erosion and Sedimentation Control" for all projects contracted out or performed by the agency. Maine DOT provided in person ESC training on 5/11/2023(42 employees) and 6/21/23 (18 employees) and 3/29/23 (75 employees).
2. Provide training and technical assistance to promote use of BMPs on town and county roads.	• MLRC will provide training to towns through Maine Local Roads Center (MLRC). • NPSTC will promote DEP Erosion and Sediment Control certification for Public Works staff.	John Maclaine, DEP Peter Coughlin, MDOT	2. DEP will certify at least five DPW employees through the NPSTC per year.	5 **6**	5 **35**	5 **110**	5 **42**	5	36 Public Works employees trained and 6 other municipal employees, with 14 new certifications during in-person training sessions. 8 other municipal officials trained in the online course.
3. Promote chloride salt reduction BMPs to protect water quality while maintaining safe roads for travelling public.	• Continue MLRC training and BMP Task Force to promote snow and ice control BMPs to municipal Public Works. • Maine DOT will continue to investigate new products, technologies, or efficiencies to reduce the use of chlorides.	Peter Coughlin, Maine DOT	3. Hold at least 30 workshops/year, covering 4 different subjects for 150 different towns.	30 **10**	30 **21**	30 **20**	30 **20**	30	MLRC provided 20 in-person workshops with a total of 473 participants
4. Identify chloride impacted or threatened streams and	• DEP will identify high priority watersheds for salt reduction efforts and share with Maine DOT & towns. Provide chloride fact sheet to towns & provide technical assistance and/or training.	Jeff Dennis, DEP	4. Develop chloride-impacted and	X ✓					Milestone met.

Table 13. Statewide Approach - Transportation Lead Agency: Maine DOT				Schedule Planned (X #) Actual (✓ #)					
Five-Year Objectives	**Actions**	**Lead Contact**	**Milestones**	**2020**	**2021**	**2022**	**2023**	**2024**	**2023 Accomplishments and Outputs**
consider/promote salt reduction strategies in these areas.	• Identify DEP priority area to implement alternative practices (e.g., catch basin to deliver chloride to stream instead of infiltration).		threatened streams list.						
5. Explore stakeholder interest, possible program funding options, and feasibility of Green Snow Pro type program.	• Meet with MS4 communities, Maine DOT, SWCDs, Long Creek Watershed Management District and other stakeholders to discuss Green Snow Pro program level of interest and any next steps. • If support and funding exists, propose legislation to limit liability for certified snow removal contractors.	Alex Wong, DEP	5. Draft Limited liability legislation (if supported).	X					MILESTONE POSTPONED INDEFINITELY. In summer of 2023, the Interlocal Stormwater Working Group held a site walk in the Long Creek Watershed Management District with state legislators to generate support for limited liability legislation. Support seems to be lacking at this time.
6. Promote reduction in the number of outdoor sand/salt piles.	• Maine DOT will eliminate its remaining 13 outdoor sand/salt piles by 2024. • MLRC will provide technical assistance to towns regarding town salt storage facilities.	Cindy Dionne, Maine DOT	6. Maine DOT removes two sand/salt piles per year.	2 **0**	2 **2**	2 **9**	2 **0**	2	No outdoor sand/salt piles were eliminated in 2023. Two additional piles are scheduled for 2024.
7. Address NPS problems identified by DEP on State roads through Maine DOT maintenance program and construction projects.	• Annually, DEP will provide Maine DOT and Maine Turnpike Authority (MTA) with a GIS layer of priority watersheds and list of State road watershed survey sites. • MDOT, MTA and DEP will meet annually to review DEP needs (above) and Maine Dot's six-year plan to identify shared priorities and possible NPS projects that can be completed through Maine DOT and MTA maintenance or construction projects.	Cindy Dionne, Maine DOT	7. Maine DOT completes at least one NPS project/year.	1 **2**	1 **0**	1 **1**	1 **1**	1	One reported NPS problem corrected by culvert replacement in 2023.

Table 13. Statewide Approach - Transportation Lead Agency: Maine DOT				Schedule Planned (X #) Actual (✓ #)					
Five-Year Objectives	**Actions**	**Lead Contact**	**Milestones**	**2020**	**2021**	**2022**	**2023**	**2024**	**2023 Accomplishments and Outputs**
8. Provide technical assistance and training to prevent & mitigate NPS impacts from camp roads.	• NPSTRC and partners will host workshops and online resources to promote gravel road BMPs. • Promote the development of informal or formal road associations to coordinate road maintenance and improvement.	John Maclaine, DEP	8. Hold at least two NPSTC-approved workshops/year.	2 **1**	2 **2**	2 **2**	2 **6**	2	Conducted 6 workshops in 2023, with 150 total participants
9. Promote bluestone gravel for use on camp roads and driveways where available.	• Compile a list of providers and post on NPSTC website and in Gravel Road Maintenance Manual.	John Maclaine, DEP	9. List of bluestone suppliers compiled and posted online.	X	✓				Milestone met.

Table 14. Statewide Approach – Forestry Lead Agency: Maine Forest Service				Schedule Planned (X #) Actual (✓ #)					
Five-Year Objectives	**Actions**	**Lead Contact**	**Milestones**	**2020**	**2021**	**2022**	**2023**	**2024**	**2023 Accomplishments and Outputs**
1. Increase overall effective BMP application on harvests from 76% to 85% or greater. Effective BMPs include all appropriately applied BMP practices, effective planning, and avoiding waterbody crossings.	• Offer BMP training programs, with partners including the Maine Sustainable Forestry Initiative, Certified Logging Professional, Qualified Logging professional program, and Northeast Master logger. • Deliver existing or develop new and topic specific trainings as needed to address problem areas when identified by monitoring, compliance inspections and industry consultation. • Work with DEP and Maine Municipal Bond Bank and EPA to maintain CWSRF funding and promote the Maine Forestry Direct Link Loan Program financing to reduce NPS risk at timber harvest sites. Apply northeast regional forestry BMP monitoring protocol on a biennial basis to assess use & effectiveness of forestry BMPs.	Tom Gilbert, MFS	1. Maine Forestry BMPs Use and Effectiveness report documents effective BMP application on 85% of sites inspected	85 **78**		85 **68**		85	No action scheduled for 2023; next milestone scheduled for 2024.
2. Maintain the Forest Ranger-approved water quality inspections of timber harvest sites at over 90%.	• Forest rangers will continue routine inspections of timber harvests for environmental compliance. MFS field foresters will continue to provide technical assistance to prevent problems from occurring and quickly fix problems encountered during inspections.	Tom Gilbert, MFS	2. Over 90% of sites exhibit environmental compliance during timber harvest inspections.	90 **97**	90 97	90 **96**	90 **94**	90	MFS Rangers continue to inspect water quality related inspections. On-site mitigation measures and/or other regulatory interventions are pursued as appropriate.
3. Ensure agencies and staff responsible for protecting Maine's	• MFS will work with Land Use Planning Commission (LUPC) and DEP to clarify each agencies' responsibility for permitting and	John Maclaine, NPSTC	3. Hold interagency meeting in 2020 and hold	X	X ✓				Milestone met.

Table 14. Statewide Approach – Forestry Lead Agency: Maine Forest Service				Schedule Planned (X #) Actual (✓ #)					
Five-Year Objectives	**Actions**	**Lead Contact**	**Milestones**	**2020**	**2021**	**2022**	**2023**	**2024**	**2023 Accomplishments and Outputs**
water resources from potential degradation have a clear understanding of each's roles and responsibilities including enforcement procedures.	enforcement of NRPA stream crossing and Chop and Drop activities. • MFS will work with LUPC and MDEP to develop and deliver timber harvest NRPA (stream crossing) training to agency staff, municipalities and the industry. • MFS will incorporate NRPA (stream crossing) education in their Certified Logger Program (CLP), Master Logger Program (MLP), and BMP monitoring program.		joint timber harvest NRPA (stream crossing) training event in 2021.						
4. By 2024, improve consistency for the regulated community by increasing the number of critical mass municipalities that have adopted statewide standards for timber harvesting in shoreland areas to 252 (adoption by 224 towns in 2019).	• DEP will support adoption of SWS by inviting MFS to participate in Shoreland Zoning trainings. • DEP will support adoption of SWS by providing draft municipal Shoreland Zoning ordinances to MFS before issuing approvals and incorporating information about SWS adoption process in Shoreland Zoning training. MFS will proactively approach towns, provide technical assistance with ordinance updates, and review draft ordinances to help align with SWS.	Tom Gilbert, MFS	4. By December 2024, 27 new municipalities adopt statewide timber harvesting standards or DEP adopts ordinances for them.	6 **9**	6 **10**	5 **7**	5 **5**	5	Five new towns adopted statewide standards for timber harvesting in 2023.

Table 15. Statewide Approach – Subsurface Wastewater Disposal Lead Agency: Maine DHHS, Environmental Health				Schedule Planned (X #) Actual (✓ #)					
Five-Year Objectives	**Actions**	**Lead Contact**	**Milestones**	**2020**	**2021**	**2022**	**2023**	**2024**	**2023 Accomplishments and Outputs**
1. Ensure municipalities properly implement Subsurface Wastewater Disposal (SSWD) rules to protect public health and water quality.	• Provide technical assistance and training to towns on the appropriate implementation of the subsurface rules. • Assist in the training and licensing of Local Plumbing Inspectors. Develop resource for CEOs showing photos with a range of site conditions.	Brent Lawson, DHHS	1. 200 visits to towns per year. Photo guide developed for CEOs in 2021.	200 visits/yr **38**	 **20**	 **170**	 **150**	 	
2. Consider adjacent water resources when reviewing variance requests for Onsite Sewage Disposal System (OSDS).	• Review advanced treatment systems and identify treatment efficiencies for phosphorus and nitrogen. • Review variance requests for OSDS in shoreland zones and require that systems next to lakes install systems that remove phosphorus, and systems next to coastal waters remove nitrogen.	Brent Lawson, DHHS	2. List of advanced systems with phosphorus and nitrogen removal efficiency.				X ✓		Milestone complete. Reviewed advanced treatment systems in Shoreland Zone. Variances redesigned with tertiary treatment systems and maintenance agreements recorded with the Registry of Deeds.
3. Improve the State's Voluntary OSDS Inspection Program and oversee expansion to all shoreland zones.	• Update inspection program rules with requirements for inspectors to receive national certification, take a standard test, submit inspection forms, etc. • Evaluate the current inspection program and needs before expanding statewide. Develop Legislative report as directed by LD543. • Adjust inspection program in preparation for transition to OSDS Inspection Program expansion to all shoreland zones.	Alex Pugh, DHHS	3. Submit report submitted to Legislature and adopt revised rules in 2020.	X		X	 ✓ ✓		Milestone complete. Legislature adopted rules in 2023. Three new sections added to Chapter 241 that require independent 3rd party inspections, independent 3rd party inspector certifications, and standards and procedures for 3rd party inspection. Inspection reports are submitted to the municipality.

Table 15. Statewide Approach – Subsurface Wastewater Disposal Lead Agency: Maine DHHS, Environmental Health				Schedule Planned (X #) Actual (✓ #)					
Five-Year Objectives	**Actions**	**Lead Contact**	**Milestones**	**2020**	**2021**	**2022**	**2023**	**2024**	**2023 Accomplishments and Outputs**
4. Conduct public outreach about new requirements in shoreland zone.	• Conduct training for real estate professionals and incorporate information about new legislation re: property transfer inspections.	John Maclaine, DEP	4. Conduct one realtor workshop per year.	1 **0**	1 **0**	1 **0**	1 0	1	Postponed indefinitely.
5. Develop criteria for inspecting OSDS that are at risk for short-circuiting and impacting water resources.	• DEP and DACF will develop guidance on identifying OSDS at high-risk of short-circuiting due to age, soils, and proximity to water. • Dave Rocque (ret. DACF) will develop optional advanced inspection standards/methodology. • DEP and DACF will evaluate/refine through pilot program that uses methods on several types of systems.	Alex Wong, DEP	5. Develop guidance document in 2020. Develop draft advanced inspection standards by 2020 and test by 2022.	X	✓	X			DELAYED. Milestones partially met.
6. Review OSDS threats to water quality as part of watershed-based planning process.	• DEP will promote guidance with partners and incorporate into watershed planning projects.	Alex Wong, DEP	6.Evaluate septic system threat in all watershed-based management plans staring in 2021.	✓	X ✓	X ✓	X ✓	X	All WBMPs, except those in fully sewered watersheds, addressed nutrient loading from groundwater from septic systems or otherwise.

Table 16. Statewide Approach – Hydrologic and Habitat Modification Lead Agency: Maine DEP				Schedule Planned (X #) Actual (✓ #)					
Five-Year Objectives	**Actions**	**Lead Contact**	**Milestones**	**2020**	**2021**	**2022**	**2023**	**2024**	**2023 Accomplishments and Outputs**
1. Adopt new standards for stream crossings (new, repair, and replacement) to improve aquatic organism passage and improve hydraulic capacity and resiliency to larger storms.	• Adopt draft standards for stream crossings under Section 305 to better align with Stream Smart principles.	Mark Stebbins, DEP	1. Legislature adopts revised standards.	X					Postponed Indefinitely. Due to staffing shortages, DEP's Land Bureau will be reevaluating program and rulemaking priorities and timeline.
2. Provide training to minimize impacts during culvert installation/ replacement and ensure long term stability and proper function.	• Develop curriculum and provide trainings on culvert installation/replacement.	John Maclaine, DEP *Partners: Maine DOT DIFW ACOE*	2. Develop curriculum in 2020 and hold one multi-agency workshop /year starting in 2021.	X ✓	1 **1**	1 **1**	1 **3**	1	

Table 16. Statewide Approach – Hydrologic and Habitat Modification Lead Agency: Maine DEP				Schedule Planned (X #) Actual (✓ #)					
Five-Year Objectives	**Actions**	**Lead Contact**	**Milestones**	**2020**	**2021**	**2022**	**2023**	**2024**	**2023 Accomplishments and Outputs**
3. Administer DEP stream culvert grant program (culvert bond program) that funds upgrades of municipal culverts.	• $3 Million - 2023 grant funding was moved to ARPA monies as part of Maine Jobs & Recovery Plan, with returned funds (~$1.7 Million) being reinvested from previous rounds • Funding was moved to the state budget in 2023 and the program is to be moved to MaineDOT for further rounds. Maine DEP will continue to manage existing grant contracts.	John Maclaine, DEP	3. 100 culverts upgraded through 2019 and 2020 RFPs.	25 **32**	25 **43**	25 **51**	25 **32**		See additional program highlights in Section IV.E.
4. Promote use of living shorelines and similar approaches to address NPS problems, restore impacted habitat and maintain existing habitat values.	• Explore and develop policy to limit use of riprap on streambanks and lakeshores in NPS watershed projects. • Evaluate living shorelines pilot projects. If appropriate, pursue revisions to Chapter 305 to accommodate living shoreline approaches in coastal and other shoreline areas.	Alex Wong, DEP	4. Develop shoreline riprap policy for NPS watershed projects in 2021.		X		✓		Riprap policy for NPS watershed projects complete. OUR SHORES 4-page Quick Guide on living shoreline techniques drafted. Detailed explanations of the BMPs listed in the document will be developed in 2024 for final publication of the OUR SHORES approach.

Table 17. Statewide Approach – NPS Program Coordination **Lead Agency: Maine DEP**				**Schedule** **Planned (X #)** **Actual (✓ #)**					
Five-Year Objectives	**Actions**	**Lead Contact**	**Milestones**	**2020**	**2021**	**2022**	**2023**	**2024**	**2023 Accomplishments and Outputs**
1. Program Administration: Continue to manage and implement the NPS Program to meet program goals and work towards addressing the State's water quality problems as effectively and expeditiously as possible.	• DEP employs appropriate programmatic and financial systems that ensure section 319 funds are used efficiently and consistent with fiscal and legal obligations (Section 319 program guidelines, EPA-DEP Performance Partnership Agreement). • In keeping with CWA Section 319(h)(8) and (11), provide EPA with sufficient information, annual reports, GRTS data and other information about Maine's 319 program to determine whether the State's previous year progress was satisfactory. • Conduct sub-recipient monitoring according to program standard operation procedures using DEP's NPS Grant Administration Guidelines (2016). Complete and close out all active grant projects within the contract period.	Alex Wong, DEP	1. Maine's NPS Program submits annual report to EPA and continues to achieve Satisfactory Progress Determination from EPA.	X ✓	X ✓	X ✓	X	X	SPD for 2023 pending
2. Program Administration: Update the ME NPS Management Plan by 2024.	• Consult with lead agencies and gather partner input to update the Maine NPS Management Program Plan for the next five-year cycle including milestones for 2025-2029.	Alex Wong, DEP	2. EPA approves Maine NPS Management Program Plan by 10/1/24.					X	
3. Education & Outreach: Promote more effective awareness and behavior change methods and tools for DEP programs	• Provide technical assistance and training opportunities in social marketing by hosting or participating in Maine workshops, seminars and conferences. • Provide technical assistance and training opportunities in how to effectively use social media and other electronic platforms.	Kirsten Thompson, DEP	3. Host or help coordinate at least two social marketing and two social media workshops.	1 **0**	1 **0**	1 **3**	1 **0**		No activity in 2023. Contractor that provided workshops in 2022 went on sabbatical. No new contractor was retained in 2023.

Table 17. Statewide Approach – NPS Program Coordination Lead Agency: Maine DEP				Schedule Planned (X #) Actual (✓ #)					
Five-Year Objectives	**Actions**	**Lead Contact**	**Milestones**	**2020**	**2021**	**2022**	**2023**	**2024**	**2023 Accomplishments and Outputs**
and NPS projects and partners.									
4. Partnerships: Build and strengthen coordination and communication between Maine's NPS Program's lead agencies.	• Convene meeting of NPS lead agencies and partners to review NPS Plan activities and determine need and frequency of future work group meetings. • Conduct regular outreach to lead agencies, request semiannual updates on NPS Plan action items and milestones, and provide annual updates to lead agencies. • Continue to work with other government agencies to address and improve areas of environmental concern and seize opportunities for further collaboration.	Alex Wong, DEP	5. Hold meeting of NPS Plan lead agencies and partners in 2020. Send NPS Plan status update to lead agencies annually.	X ✓	X ✓	X ✓	X ✓	X	DEP met individually with each lead agency in 2023 on various timely subjects in addition to maintaining regular contact to prompt semi-annual program updates and to plan milestone planning for the 2024-2029 5-yr NPS Management Plan.
5. Partnerships: Build and strengthen partnerships to promote collaboration and effective implementation of the Maine NPS Management Plan.	• Conduct the annual Watershed Roundtable to bring together watershed professionals to share information, network and foster collaboration. • Improve upon and continue to coordinate the watershed managers' listserv to efficiently promote sharing between partners.	Alex Wong, DEP	6. Host annual Watershed Roundtable and explore options and migrate listserv to improved platform in 2020.	X ✓	X ✓	X ✓	X ✓	X	Hosted hybrid Watershed Roundtable with approximately 90 participants from municipalities, NGOs, SWCDs and other state agencies. 192 people are in direct email database, and 207 people are subscribed to watershed listserv. Waiting for upcoming State listserv upgrade before migrating to new platform.
6. Funding: Explore funding options to address NPS sources and program needs.	• Explore funding options for addressing malfunctioning onsite disposal systems where there are likely water quality impacts (e.g., CWSRF, SCG, Section 319 to replace OSDS,	Alex Wong, DEP	7. Develop list of funding options.			X ✓			Milestone met.

Table 17. Statewide Approach – NPS Program Coordination Lead Agency: Maine DEP				Schedule Planned (X #) Actual (✓ #)					
Five-Year Objectives	**Actions**	**Lead Contact**	**Milestones**	**2020**	**2021**	**2022**	**2023**	**2024**	**2023 Accomplishments and Outputs**
	connect to public sewer, or extend sewer lines). • Explore and pursue additional funding to support development of WBPs and watershed implementation projects. • Explore, promote, and pursue FEMA hazard mitigation grants for installation of green infrastructure, stream/floodplain restoration, and culvert replacements. • Share information with partners about funding opportunities through listserv and WBP planning and implementation projects.								
7. <u>Funding:</u> Promote CWSRF programs, track funding for NPS projects and explore new program opportunities.	• Track CWSRF projects and funding awarded to NPS projects and summarize in the NPS Annual Report. • Explore and promote ways for CWSRF to meet Maine's NPS needs (e.g., salt reduction equipment, uncovered sand/salt piles. WBP development, brownfields, alum treatments, land protection). Review other State programs, meet with partners to explore needs and determine options and feasibility. • Publicize CWSRF opportunities through the watershed listserv and roundtable.	Brandy Piers, DEP	8. Include summary of CWSRF-funded NPS projects in the annual NPS Program Report. Develop one new NPS program area using CWSRF by 2023.	X ✓	X ✓	X ✓	X ✓	X	CWSRF funding for NPS projects in 2022 totaled $8,018,471. Projects described in Section IV.D. Developed one new program area ($200,000) for Stormwater and Nonpoint Source planning projects.

Sebasticook Lake Watershed Survey

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Document available for download at:
http://www.maine.gov/dep/water/grants/319-documents/reports