#### KENNEBEC COUNTY SOIL & WATER CONSERVATION DISTRICT REQUEST FOR QUALIFICATIONS (RFQ) PROJECT MANAGEMENT & PLANNING CONSULTANT SERVICES FOR WEBBER POND, THREEMILE POND, THREECORNERED POND TRI-WATERSHED BASED PLAN DEVELOPMENT PROJECT

The Kennebec County Soil & Water Conservation District (District) is requesting Statements of Qualifications from interested and qualified Consultants for Professional Planning Consultant Services in order to assist in the development of an impaired lake watershed-based management plan. The District has been awarded a 604(b) grant under contract with Maine DEP to develop the Webber, Threemile and Three Corner Pond Watershed-Based Management Plan. The three pond watershed is designated as a Great Pond Class GPA, and is a three pond chain of lakes, Three Corner drains to Three Mile and then they drain into Webber Pond until flowing into the larger Kennebec River watershed. The entire Pond watershed is located in the towns of Augusta and Vassalboro in Kennebec County.

Webber and Threemile have a history of supporting excessive amounts of algae in the late summer, due in large part to the presence and sediment accumulation of P that is prevalent in area soils. Water quality has declined in recent years in Webber and Threemile, including cyanobacteria blooms containing microcystin toxins harmful to humans and pets. This negatively impacts recreational, rental, and residential use of the ponds. The water quality in Threecornered is considerably better than the other two ponds but trends are difficult to identify due to lack of consistent data.

#### PURPOSE AND SCOPE OF WORK

The purpose of the project is to perform water quality and sediment sampling/analysis and watershed assessments for Webber Pond, Threemile Pond, and Threecornered Ponds. This information will be included in an updated nine-element Watershed-Based Plan. Watershed stakeholders, including residents, pond associations, conservation associations, and town/city officials, will develop locally supported watershed goals, objectives, and action strategies for reducing phosphorus levels and improving water quality. A breakdown of tasks includes:

- 1) Coordinate assay/analysis on sediment samples collected by volunteers.
- 2) Work with DEP on a Survey Implementation Plan.
- 3) Manage the volunteer survey process and perform data and site reviews of high-impact sites.
- 4) Perform a survey review or new survey of all dirt roads leading to and around Threemile Pond and Threecornered Pond ponds and all stream crossings.
- 5) Analyze results and write an initial brief Direct Watershed Survey report for each pond, followed by a more complete final report once the Agriculture and Forestry surveys are finished. Final report to include a map of problem NPS sites, as well as a list of problem sites, including location, issues, recommendations, site prioritization, and estimated costs to remediate.
- 6) Perform a desk survey of land used for agriculture and forestry in the Threemile Pond and Threecornered Pond direct watersheds. This is to be followed by field surveys to ground-truth land cover and count livestock/hobby farms, spring manure spreading, etc.
- 7) Consult with KCSWCD, the Natural Resources Conservation Service (NRCS) and the U.S. Forest Service (USFS) on this project to get local input on actual conditions, the analysis, and reports.
- 8) Incorporate the Agriculture and Forestry surveys into the Direct Watershed Survey reports for the two ponds.
- 9) Analyze water sample data and prepare a written summary to review with the Technical Committee.

- 10) Work closely with project partners including the District, Maine DEP, Vassalboro Conservation Commission, CRLA, the pond Associations (Webber Pond, Threemile Pond, Threecornered Pond), and other interested parties, and the public to complete all project tasks as written in the work plan (Attachment 1).
- 11) Attend four (4) steering committee meetings, as well as Technical Committee meetings.

#### **PROPOSAL FORMAT**

To facilitate review, submissions should conform to the following format:

- 1. **Experience of the Firm:** Provide a description of your firm's prior experience and qualifications in developing and updating watershed-based/ management plans for impaired or threatened lakes. Also, please reference the experience of the firm in working with the State and EPA regulation and procedure, in particular those specified in the 319 program.
- 2. Project Team (Key Staff): Identify the proposed Project Manager and key project team members and responsibilities. Provide an itemized rate per hour for identified team. Provide a brief resume for each person outlining their credential and experience. Describe your team's experience working in the Belgrade Lakes region, and/or the North Pond watershed.
- **3. References:** Provide the name and contact information for at least three (3) references familiar with the quality of work by your team of similar nature as contained in the above Scope of Work.
- **4. Project Understanding**: Provide your general understanding of the watershed, project, and issues regarding the identified project(s). Identify any potential challenges or special concerns that may be encountered.
- 5. Other Supporting Data: Include any other information you feel to be relevant to the selection of your firm or the makeup of the project team including sub-consultants.

The entire Statement of Qualifications shall not exceed thirty (30) pages; excluding the front and back covers, dividers, coversheet, table of contents, and letter of introduction (maximum 2 pages).

#### **CRITERIA FOR REVIEW OF STATEMENT OF QUALIFICATIONS**

The following criteria will be used in screening, ranking and selection of the successful firm:

- **1.** Qualifications of the Firm (20-30 points): Preference shall be given to those firms with experience in watershed management planning related to the scope of services.
- 2. Qualifications of the Project Team (Key Staff) (30-40 points): Preference shall be given to those with key staff experience in items listed in the above scope of services and any familiarity with the region.
- 3. Experience in Working with State and EPA Regulations and 319 Project Procedures (20-30 points): Preference shall be given to project teams whose personnel have a demonstrated working relationship with the State and EPA, and possess a thorough understanding of the rules and regulations regarding watershed management planning, particularly impaired lakes.
- **4. Project Understanding (25-35 points):** Preference shall be given to those firms which have a comprehensive understanding of the project requirements and environment.

#### SELECTION OF THE CONSULTANT

It is the intent of the District to appoint a committee to review the Statements of Qualifications submitted and rank the qualified firms. All unsuccessful firms will be notified in writing no later than 10 days after selection of the Consultant. The District reserves the right to reject any and all submissions to this RFQ, request clarification, or waive informalities/technicalities, if it is deemed in the best interest of the project. The District assumes no responsibility for costs incurred in responding to the RFQ.

#### SUBMISSION OF QUALIFICATIONS STATEMENT AND CONTACT PERSON

An electronic copy of Qualifications Statement must be submitted no later than <u>4 p.m. on January 31,</u> <u>2025</u>, to <u>staylor@kcswcd.org</u>.

For questions related to the RFQ, please contact:

Stephanie Taylor Kennebec County Soil & Water Conservation District 2305 North Belfast Ave. Augusta, ME 04330 staylor@kcswcd.org (207) 480-3927

See Attachment A (13 pages)

Project Title	Webber Pond, Threemile Pond, Threecornered Pond Assessments	
Applicant's Organization	Kennebec County Soil and Water Conservation District	
Applicant's Org. UEI#	MHJ3PNFCk2W1	
Project Start Date	October 2024	
Project Completion Date	December 2026	

# I. Waterbody and Watershed Information

#### a. Background

Waterbody Name	Webber Pond MIDAS 5408	Threemile Pond MIDAS 5416	Threecornered Pond MIDAS 5424
Waterbody Size	1,201 acres	1,132 acres	180 acres
Watershed Area	8 square miles	9.3 square miles	5.1 square miles
Watershed Location - towns, county	Vassalboro, Kennebec	China/Vassalboro /Windsor, Kennebec	Augusta/Vassalboro /Windsor, Kennebec
Title and Date of Existing or Past Watershed-based Management Plan	Watershed-Based Management Plan for the Tri-Watershed of Webber Pond, Threemile Pond & Threecornered Pond, Kennebec County, Maine (September 2005)		
Public Access to Waterbody	Public Boat Landing Public Campground Kennebec Land Trust Conservation Property	Public Boat Landing and Swimming Area	Bicentennial Nature Park open only to Augusta residents and their guests
Is the Waterbody a public drinking water supply?	No	No	No

# b. Waterbody and Watershed Physical Characteristics

The combined watershed of Threecornered Pond, Threemile Pond and Webber Pond in eastern Kennebec County, Maine, covers 14,226 acres (22.5 square miles) of rural land with rolling hills, wetlands, perennial streams, and intermittent streams. Threecornered Pond is the headwater for the two larger ponds, Threemile Pond and Webber Pond. Mud Pond is a 239-acre indirect sub-watershed of Threemile Pond and is not TMDL listed, therefore excluded from this project. The drainage pattern is circular, southeast from Threecornered Pond via Barton Brook then north into Threemile Pond, which drains northwest into Webber Pond via Seaward Mills Stream. The chain ends with Webber Pond draining southwest into Sevenmile Brook, which then drains into the Kennebec River (see Location Map).

• Threecornered Pond receives inflow from several intermittent and perennial streams. Stony Brook in the north is the major tributary. It has an outlet dam with boards in the southeast corner that is managed by volunteers. The DEP's 2003 PCAP-TMDL estimated land use in the watershed to be 4% agricultural, 5%

forestry, 1% shoreline development, 4% non-shoreline development, 81% undeveloped land, and 5% open water (lake surface).

- Threemile Pond has 3 main tributaries, the largest of which is Barton Book from Threecornered Pond. There is no dam and therefore no way to control water levels. In 2017, drought conditions completely dried up the outlet from Threemile Pond to Seawards Mill Stream. High rain levels in 2023 and early 2024 caused flooding. The DEP's 2003 PCAP-TMDL estimated land use in the watershed to be 7% agricultural, 2% forestry, 2% shoreline development, 5% non-shoreline development and 68% undeveloped land, and 16% open water (lake surface).
- Although several streams drain into Webber Pond, Seaward Mills Stream contributes 90% of tributary water input. The outlet dam is owned, operated, and maintained by the Webber Pond Association (Webber Pond). Since 1990, the Webber Pond has done a fall drawdown to flush surface water high in phosphorus (P) and algae/cyanobacteria. The DEP's 2003 PCAP-TMDL estimated land use in the watershed to be 8% agricultural, 3% forestry, 2% shoreline development, 7% non-shoreline development and 61% undeveloped land, and 19% open water (lake surface).

## c. Description of Waterbody Uses and Value

Webber Pond, Threemile Pond, and Threecornered Pond ponds include residential development on and near the shoreline (seasonal, rental, and year-round occupancy), significant recreational use of the ponds and adjacent areas: boating, swimming, fishing, hunting, camping, golf, cross-country skiing, and snowmobiling, and some commercial development on and near the shoreline. All three ponds provide significant economic benefits to their communities through consumer spending and property taxes.

Webber Pond has a public boat launch with fishing dock near the dam, a public campground with docks on the east shore, public conservation property on the west shore that provides public access for hiking and shoreline access, and a large public golf facility near the west shore with two 18-hole courses, driving range, and clubhouse.

Threemile Pond has a public boat launch with fishing and swimming access. Threecornered Pond has 27-acre Bicentennial Nature Park, which is open only to residents of Augusta and their guests. It includes a large picnic area; a swimming area with docks, floats, and slides; canoe and kayak access; fishing; several hiking trails; and bathrooms.

In 1997, the Maine Department of Marine Resources began stocking Webber Pond with sea-run alewives. In 2009 a fishway was installed, helping to restore the original ecosystem and providing additional food sources for birds, fish, and other wildlife. During the May alewife run, alewives are harvested for lobster bait 4 days a week, which supports the lobster fishery and provides revenues to the Town of Vassalboro. On the other three days, alewives enter Webber Pond to spawn, with 10% heading up to Threemile Pond. Adults then return to the sea; juveniles leave the lake in late summer/fall.

# II. Water Quality Problem or Threat

	Webber Pond	Threemile Pond	Threecornered Pond
Is water quality listed as impaired?	Yes	Yes	No – Threatened
If impaired, what are the listed causes and/or impaired use?	Category 4A Impaired Use Other than Mercury: persistent blooms due to excess P	Category 4A Impaired Use Other than Mercury: persistent blooms due to excess P	Threatened: Watch List, Sensitive, Sensitive – Sediment Chemistry
Name and date of any DEP TMDL reports	Webber Pond PCAP-TMDL Report, September 2003	Threemile Pond PCAP-TMDL Report, September 2003	Threecornered Pond PCAP-TMDL Report, September 2003

# a. Water Quality Listing Status

# b. Water Quality Overview

Webber Pond and Threemile Pond have a history of algal blooms in the late summer. Water quality has declined in recent years in Webber Pond and Threemile Pond, including cyanobacteria blooms containing microcystin toxins harmful to humans and pets. The water quality in Threecornered Pond is considerably better than the other two ponds but trends are difficult to identify due to lack of consistent data.

<u>Webber Pond Water Quality</u>: In 2002, seasonal Secchi disk transparency (SDT) readings were 5.0-0.8 m, with weekly readings <1.0 m of very severe blooms from late July to late August. This was followed by 5 weeks of severe blooms, with SDT readings of 1.8-1.1 m. From 2003-2018, there were fewer blooms and no very severe blooms.

Webber Pond leadership attributed this improvement to the positive impact of larger alewife runs, which increased from 2002 (7,620) to their peak runs from 2014 (378,090) through 2018 (460,880).

Webber's water quality worsened again starting in 2019. There were significant severe blooms (SDT of 2.0-1.1 m) mainly in Jul-Sep from 2019 to 2023, and 3 weeks of very severe blooms in Aug-Sep 2022 (SDT of 1.0-0.9 m), with associated high P readings (0.031-0.054 ppm).

Webber also experienced serious cyanobacteria blooms with microcystin toxins at levels harmful to children, adults, and pets in Sep-Oct 2020 (1.6-1.7 ppb), Sep 2022 (>5 ppb), and Sep-Oct 2023 (>5 ppb).

<u>Threemile Pond Water Quality</u>: Threemile Pond had some improvement in SDT transparency, but not to the same extent as Webber. P data is available for 2002 at 1 m, however, between 2003 and 2018 there were no samples taken at 1 m, and only 4 P samples taken at the surface, making it impossible to identify trends.

In recent years, Threemile Pond has also experienced worsening algae and cyanobacteria blooms, with microcystin toxins at levels harmful to children and pets in Sep-Oct 2020 (0.7-1.2 ppb) and at levels harmful to children, adults, and pets in Oct-Nov 2022 (>3 ppb). DEP also indicated that Threemile Pond had cyanobacteria blooms in 2023.

<u>Threecornered Pond Water Quality</u>: SDT data from 2002-2004 shows readings of 3.9-2.7 m in 2002, 4.0-2.0 m in 2003, and 3.9-2.9 m through July 2004, but there are only 11 SDT readings for the next 11 years through 2018, making it difficult to identify trends. Similarly, comprehensive P data is available for 2002, but only available for 8 of the following 16 years, with 28 samples being taken at 10 different depths, so that P trends cannot be assessed. Additional consistent SDT and P data are needed to confirm the status of water quality in this pond.

# III. Watershed Nonpoint Pollution Sources and NPS Mitigation Activities

# a. Summary of Watershed Assessments and Priority Nonpoint Pollution Sources (NPS)

Land Use Patterns in Relation to Lake Water Quality in Webber Pond Watershed, Colby Environmental Assessment Team, Colby College, 2002: The Colby team analyzed physical and chemical measurements, land use patterns, and the impact of development and found these factors negatively impacted Webber Pond water quality due to the accumulation of nutrients, particularly P. An increase in commercial and municipal land use led to increased erosion and nutrient run-off. Residential shoreline properties were found to have significantly fewer adequate buffer strips compared with other lakes in the region, and roads were found to disproportionately contribute to the total sediment and nutrient loading rates of surface waters. Mean P levels of 23 ppb were significantly above the 12-15 ppb threshold for algae blooms. P concentrations in the hypolimnion were found to be increasing, and anoxic conditions increased internal nutrient loading, a significant problem in Webber Pond.

*DEP 2003 PCAP-TMDL* Reports show significant excess P from internal recycling of pond sediments and runoff in the direct and indirect watershed for all three ponds (see:

- *Webber Pond DEP PCAP-TMDL Report*, Maine DEP, September 2003
- *Threemile Pond DEP PCAP-TMDL Report*, Maine DEP, September 2003
- Threecornered Pond DEP PCAP-TMDL Report, Maine DEP, September 2003

A Watershed Analysis of Threemile Pond, Colby College Environmental Assessment Team, December 2003: Confirmed prior findings that water quality is negatively affected by the accumulation of nutrients, particularly P, resulting from surface runoff, erosion, and internal nutrient loading.

Land uses have changed in the past 20 years, but the referenced reports and data are the most recent available for these three ponds. New watershed surveys and expanded water and sediment testing are needed to assess the impact of current land uses and identify the sources and amounts of excess nutrients.

# b. Description of Watershed Activities to Address NPS Pollution

*Webber & Threemile Ponds Watershed Project, Phase I*, (1996, CWA s.319, Maine DEP Project #96-14) established a Youth Conservation Corps which constructed 48 BMPs to control shoreline sedimentation and erosion. An effort to draft and pass local phosphorus control ordinances were unsuccessful.

Webber & Threemile Ponds Watershed Project, Phase II (1997, CWA s.319, Maine

DEP Project #97-11) constructed 33 BMPs to control shoreline erosion, continued the effort to draft and pass local phosphorus control ordinances, which again failed.

Watershed Management Plan for China Lake, Threemile Pond, and Webber Pond (not sure of funding source, Maine DEP Project #99-B18) developed a watershed management plan that provided an inventory of NPS pollution sources, developed goals for water quality and management of NPS sources, and created an implementation strategy to achieve those goals.

*China Region Watershed Management Project, Phase II* (2002, CWA s.319, Maine DEP Project #2002R-25) constructed 15 erosion control BMPs.

Watershed-Based Management Plan (WBP) for the Tri-Watershed of Webber Pond, Threemile Pond & Threecornered Pond, Kennebec County, Maine, KCSWCD, September 2005: The WBP was based on the findings of the DEP 2003 PCAP-TMDL Reports. Management measures with cost estimates were provided for each land use category where there was a potential for P export to be reduced.

*Webber Pond Watershed Phosphorus Reduction Project*, (CWA s.319 Program, Maine DEP Project # 2005R-09) focused on reducing P loadings by addressing the gravel roads and shorelines in the Webber Pond Tri-Watershed. Thirty-nine sites were remediated, 335 feet of shoreline were restored and 12 tons of sediment, 12 pounds of P and 20 pounds of nitrogen were prevented from being deposited in the 3 waterbodies, in total.

*Webber Pond Watershed Erosion Control Project* (WIFAP, Maine DEP Project #2005R-26) constructed 19 BMPs in the watersheds of Webber Pond, Threemile Pond, and Threecornered Pond, and prevented 23.16 tons of sediment, 19.78 lbs. of phosphorus, and 39.56 lbs. of nitrogen from being deposited into the 3 waterbodies, in total.

CRLA programs on Webber Pond and Threemile Pond included LakeSmart landowner education, performing runoff assessments, and making remediation suggestions. If landowners decided to proceed, the CRLA Youth Conservation Corps could be used to help address the issues. In 2023, the new CRLA Gravel Roads Rehabilitation Program did a preliminary survey of some roads on Webber Pond.

Starting in 2022, the Webber Pond began to conduct mini flushes to address serious algae/ cyanobacteria blooms prior to the scheduled annual fall drawdown. The Webber Pond has also managed the dam more actively to flush P and blooms during fall and spring turnover, prevent shoreline erosion from ice in winter, and prevent flooding in spring. Members of the Webber Pond Board also volunteered to expand use of the LakeSmart program on Webber Pond.

In 2023, the Town of Vassalboro (Vassalboro) provided \$5,000 to improve water quality monitoring and dam management on Webber Pond. This funded P and cyanobacterial toxin testing, equipment described in Task 3, and storage of boards and equipment used to manage water levels at the dam.

In 2024, Vassalboro committed \$7,500 for Tri-Watershed plan development and the CRLA Board committed \$2,000. Webber Pond and Threemile Pond began collaborating on water monitoring and plan development. The Town of Windsor committed \$3,000 to support Threemile Pond water monitoring.

Also in 2024, the Clean Water State Revolving Fund loaned \$49,236 to the Kennebec Co. SWCD, with \$49,236 of principal forgiveness, to leverage CWA s.604b funding for water quality and watershed assessment work within the watersheds of Webber Pond, Threemile Pond, and Threecornered Pond (this work plan).

# IV. <u>Purpose</u>

The purpose of this project is to perform water quality and sediment sampling/analysis and watershed assessments for Webber Pond, Threemile Pond, and Threecornered Ponds. This information will be included in an updated nine-element Watershed-Based Plan. Watershed stakeholders, including residents, pond associations, conservation associations, and town/city officials, will develop locally supported watershed goals, objectives, and action strategies for reducing phosphorus levels and improving water quality.

NOTE: This project is being co-funded with \$49,236 from the Maine Clean Water State Revolving Fund (CWSRF). Actions involving CWSRF funds are not included in this workplan and CWSRF funds are not included in match calculations. Funding leveraged with the CWSRF enables a total funded cost of \$99,236 and total match cost of \$86,094 (total project cost of \$185,330), as noted in the following table:

Task	CWSRF	604b	CWSRF	604b	Total
1.Project Management	Webber/Threemile	Webber/Threemile	\$500	\$500	\$1,000
management	5/2024-12/2025	10/2024-12/2026			
2.Steering/Technical	Webber/Threemile	Webber/Threemile	\$1,886	\$2,040	\$3,926
Committees	8/2024-12/2025	/Threecornered			
		10/2024-12/2026			
3.Sampling/Analysis	Webber/Threemile	Webber/Threemile	\$30,606	\$20,940	\$51,546
- Water/Plankton	- 2024/early 2025	- Balance of 2025			
- Sediment	- NA	- 2025			
4.Watershed Survey	2025 - Webber	2025 - Threemile/ Threecornered	\$11,638	\$15,587	\$27,225
5.Agricultural &	2025 - Webber	2025 - Threemile/	\$2,926	\$4,684	\$7,610
Forestry Survey		Inreecornered			
6.Data Analysis	NA	Webber/Threemile	NA	\$6,249	\$6,249
		11/2025-12/2026			
7.Outreach	Webber/Threemile	Webber/Threemile	\$1,680	NA	\$1,680
	5/2024-12/2025	/Threecornered 10/2024-12/2026			
		Total Funding	\$49,236	\$50,000	\$99,236
		Total Match	\$49,236	\$36,858	\$86,094
		Total Project	\$98,472	\$86,858	\$185,330

# V. Partner Coordination, Roles and Responsibility

- **Maine Department of Environmental Protection** (DEP) will administer project funding, serve as the project advisor, and provide project and technical support.
- **US Environmental Protection Agency** (EPA) will provide work plan guidance and project funding, pending acceptability of final workplan and availability of federal funds.
- Kennebec County Soil & Water Conservation District (KCSWCD) as grantee for the project, will facilitate the steering committee and provide technical guidance.
- A qualified Technical Consultant (TC) will be hired (following procurement procedures in the DEP's NPS Grant Administrative Guidelines) to manage the technical tasks of this project and to assist in developing the Tri-Watershed plan.
- **The Town of Vassalboro** will provide \$5,700 in non-federal cash match, participate on the steering committee, assist with outreach, and post project updates on its website and bulletin boards.
- **The Town of Windsor** will provide \$3,000 in non-federal cash match via the Threemile Pond Association.
- The China Region Lakes Alliance (CRLA) will provide \$1,318 in non-federal cash match, participate on the steering committee, assist with outreach and volunteer surveys, and add project updates to its website. It is anticipated that CRLA will be the entity leading plan implementation for all three ponds, in conjunction with partners.
- **The Vassalboro Conservation Commission** (VCC) will participate on the steering committee and assist with outreach and watershed surveys.
- **The Webber Pond Association** (Webber Pond) will serve on the project steering committee, advertise project activities to its members and the Town Line, lead the water quality monitoring tasks in all 3 ponds, the Webber Pond survey and plan implementation.
- **The Threemile Pond Association** (Threemile Pond) will serve on the project steering committee, advertise project activities to its members, assist with the water quality monitoring, lead the Threemile Pond survey, and lead plan implementation for Threemile Pond.
- **Threecornered Pond Community** (Threecornered Pond) representative will serve on the project steering committee, advertise project activities to its members, lead the Threecornered Pond survey, and lead plan implementation for Threecornered Pond.

# VI. <u>Tasks, Schedules and Estimated Costs</u>

All press releases, outreach materials, project signs, and plans will acknowledge that the project is funded in part by the United States Environmental Protection Agency under Section 604(b) of the Clean Water Act. Project staff will consult with DEP on EPA's public awareness terms and conditions for Section 604(b) grants before the project commences. In addition, project staff will consult with DEP and EPA before project signs are designed. Refer to the Service Contract, Rider A. Section III. D. Acknowledgement.

# Task 1 – Project Administration

- a. As grantee, KCSWCD (Applicant) will administer the project according to the contract with DEP. KCSWCD will hire a qualified environmental consultant as TC, will track project progress, expenses, matching funds, and submit semi-annual progress reports, a final project report, and other deliverables.
- b. Webber Pond will manage the expanded water sampling at both Webber Pond and Threemile Pond ponds, including recording and analyzing data. Webber Pond will document and report in-kind costs for sample collection and delivery, cash costs for sample analysis, and. in-kind costs for the watershed surveys of Webber Pond, Threemile Pond and Threecornered Pond.

Start and Completion Dates	October 2024 to December 2026	
Grant Cost: \$500	Match Cost: \$693 Total Cost: \$1,193	
Breakdown of Grant by Cost Category: Salary & Fringe, \$500		
Breakdown of Match by Cost Category: Donated Services – Labor \$693		

# Task 2 – Steering Committee and Technical Committee

- a. KCSWCD will facilitate the Steering Committee, including establishing meeting agendas, scheduling meetings, facilitating meetings, and providing meeting notes.
- b. The Steering Committee should include the TC and representatives from the Vassalboro Conservation Commission, CRLA, the pond Associations (Webber Pond, Threemile Pond, Threecornered Pond), and other interested parties.
- c. The Steering Committee is expected to meet four times to initiate and guide the project: in fall 2024, before the watershed survey in spring 2025, as the watershed survey report is being finalized in 2025, with a final meeting by December 2026.
- d. Specific tasks will include reviewing project objectives and progress, community outreach, volunteer recruitment, providing guidance on prioritization of survey sites and establishing meetings to provide a forum for public education and involvement.
- e. A Technical Committee of the TC, DEP, KCSWCD, Webber Pond, and Threemile Pond will be established to discuss water and sediment lab results and initial pond analyses.

Start and Completion Dates	October 2024 to December 2026	
Grant Cost: \$2,040	Match Cost: \$4,120 Total Cost: \$6,160	
Breakdown of Grant by Cost Category: Contractual \$2,040		
Breakdown of Match by Cost Category: Donated Services – Labor \$3,820, Travel \$300		

# Task 3 – Water and Sediment Sampling/Analysis, Webber Pond and Threemile Pond

- a. As recommended by DEP, current SDT and surface sampling for P will be expanded to include additional water quality monitoring performed by DEP-trained volunteers from Aug through pond turnover in Oct/Nov during 2025.
- b. A QAPP and SAP will be developed in accordance with DEP standards.
- c. Data will be collected at the deepest part of Webber Pond and Threemile Pond and will include biweekly monitoring of water temperature and dissolved oxygen (DO) at every meter, and P at odd meters. Biweekly epilimnion core (EC) samples will be

taken (as determined by DO readings) for P, chlorophyll-a, pH, alkalinity, dissolved aluminum (AI) and total AI, Iron (Fe) and Total Kjeldahl nitrogen (TKN). Additional samples will be taken during heavy blooms.

- d. Plankton samples will be collected monthly from May 2025 to Oct/Nov 2025. Phytoplankton identification and densities will be sampled from the EC, with additional samples taken during heavy blooms. Zooplankton net tow samples will be analyzed for identification and densities.
- e. The Webber Pond will assist the Threemile Pond with data collection training and assistance to enable Threemile Pond to consistently gather and report SDT and P data for the same periods and expand their water quality monitoring as listed in Task 3a-d.
- f. The Webber Pond Association will assist Threecornered Pond volunteers in collecting and recording SDT and P data.
- g. Water sample data will be recorded and shared by the Webber Pond Association and analyzed by the TC in Task 6.
- h. DEP and Webber Pond Association /Threemile Pond Association volunteers will take sediment samples in Webber Pond & Threemile Pond. DEP will store the samples and the TC will coordinate assay/analysis of them.
- i. Water sample and sediment results will be discussed by the Technical Committee.

Start and Completion Dates	May 2025 to October 2026	)
Grant Cost: \$20,940	Match Cost: \$19,232	Total Cost: \$40,172

Breakdown of Grant Cost by Cost Category: Sample Lab Analysis \$20,800, Other \$140

Breakdown of Match by Cost Category: Cash Match from Vassalboro,

Windsor/Threemile Pond, CRLA for Sample Lab Analysis \$10,018, Donated Services-Labor \$8,407, Travel \$808

# Task 4 – Volunteer Watershed Survey, Threemile Pond and Threecornered Pond

DEP will assist with watershed surveys on Threemile Pond and Threecornered Pond. The watershed survey will be completed using methods outlined in A Citizen's Guide to Volunteer Lake Watershed Surveys (DEP, 2011), including the collection of data necessary to calculate pollutant loading at high and medium impact sites.

- a. The TC will work with DEP on a Survey Implementation Plan.
- b. The Steering Committee will assist with volunteer recruitment and encourage landowner participation in the survey and follow up on high-impact issues identified.
- c. The TC will manage the volunteer survey process and perform data and site reviews of high-impact sites.
- d. The TC will perform a survey review or new survey of all dirt roads leading to and around Threemile Pond and Threecornered Pond ponds and all stream crossings.
- e. The TC will analyze the results and write an initial brief Direct Watershed Survey report for each pond, followed by a more complete final report once the Agriculture and Forestry surveys are finished. The final report will include a map of problem NPS sites, as well as a list of problem sites, including location, issues(s), recommendation(s), site prioritization, and estimated costs to remediate.

Start and Completion Dates	December 2024 to January	2026
Grant Cost: \$15,587	Match Cost: \$6,976	Total Cost: \$22,563

Breakdown of Grant Cost by Cost Category: Contractual \$14,392, Travel \$195, Supplies \$1,000

Breakdown of Match by Cost Category: Donated Services – Labor \$6,731, Travel \$245

#### Task 5 – Agricultural and Forestry Survey, Threemile and Threecornered Ponds

- a. The TC will perform a desk survey of land used for agriculture and forestry in the Threemile Pond and Threecornered Pond direct watersheds. In 2002, these sources contributed 32% of the P for Threemile Pond and 35% for Threecornered Pond, but only 9% of the land use.
- b. The desk survey will be followed by field surveys to ground-truth land cover and count livestock/hobby farms, spring manure spreading, etc.
- c. The TC will consult with KCSWCD, the Natural Resources Conservation Service (NRCS) and the U.S. Forest Service (USFS) on this project to get local input on actual conditions, the analysis, and reports.
- d. The TC will incorporate the Agriculture and Forestry surveys into the Direct Watershed Survey reports for the two ponds.

Start and Completion Dates	October 2024 to January 2026	
Grant Cost: \$4,684	Match Cost: \$275	Total Cost: \$4,959
Breakdown of Grant Cost by Cost Category: Contractual \$4,619, Travel \$65		
Breakdown of Match by Cost Category: Donated Services – Labor \$260, Travel \$15		

#### Task 6 – Data Analysis and Review

The Webber Pond will record water sample data and the TC will analyze it, prepare a written summary, and review it with the Technical Committee.

Start and Completion Dates	November 2025 to December 2026		
Grant Cost: \$6,249	Match Cost: \$693 Total Cost: \$6,942		
Breakdown of Grant Cost by Cost Category: Contractual \$6,249			
Breakdown of Match by Cost Category: Donated Services – Labor \$693			

## Task 7 – Outreach

This task will focus on communicating the relationship between erosion, pollutants, and water quality problems for Webber Pond, Threemile Pond and Threecornered Pond ponds and the importance of taking actions to resolve them. This includes educational brochures, letters, emails, online and hard copy posts, public meetings, and local newspaper articles as described in Section VI and Section VII, Task 2 and Task 4.

Start and Completion Dates	December 2024 to December 2026		
Grant Cost: \$0	Match Cost: \$4,867 Total Cost: \$4,867		
Breakdown of Grant Cost by Cost Category: \$0			
Breakdown of Match by Cost Category: Donated Services – Labor \$4,507, Travel \$360			

## VII. <u>Deliverables</u>

- 1. Task 1: Provide deliverables, semiannual and final project reports to DEP- KCSWCD
- 2. Task 3: Data spreadsheet for Webber Pond, Threemile Pond, and Threecornered Pond Webber Pond Association

- 3. Task 4: Volunteer survey implementation and outreach plan for Threemile Pond and Threecornered Pond Technical Consultant
- 4. Tasks 4/5: Direct watershed reports for Threemile Pond and Threecornered Pond Technical Consultant
- 5. Task 6: Data analysis report for Webber Pond, Threemile Pond, and Threecornered Pond Technical Consultant

An electronic copy of each deliverable will be provided to the DEP Contract Administrator. Each deliverable will be labeled according to procedures described in DEP document Nonpoint Source Grant Administrative Guidelines, http://www.maine.gov/dep/water/grants/319-documents/2016GrantAdminGuidelinesFinal2.doc

# VIII. Project Coordinator

Name	Dale Finseth, Executive Director
Organization	Kennebec County Soil and Water Conservation District
Mailing Address	2305 N Belfast Ave, Augusta, ME 04330
Telephone Number	207-480-2937
Email Address	dfinseth@kcswcd.org

## IX. Project Budget

Federal Funds 604(b):	\$50,000
Non-Federal Match:	\$36,858
Proposed Total Cost:	\$86,858

## Part 1. Estimated Personnel Expenses: (Applicant staff only)

Position Name & Title	Hourly Rate	Number of Hours	Salary & Fringe	Total Applicant Personnel Exp.
Dale Finseth, Executive Director	\$50	10	\$500	\$500
Totals	\$50	10	\$500	\$500

Note: Any additional hours will be included as Matching Funds, Donated Services - Labor

## Part 2. Budget Estimates by Cost Category

Cost Category	Federal Funds (EPA) CWA 604(b)	Non-Federal Match	Total Cost
Salary & Fringe (from Part 1)	\$500		\$500
Contractual	\$27,300		\$27,300
Donated Services – Labor		\$25,112	\$23,610
Travel	\$260	\$1,728	\$1,988
Supplies/Other	\$1,140		\$1,140
Water & Sediment Sample Analysis	\$20,800	\$10,018	\$30,818
Totals	\$50,000	\$36,858	\$86,858

#### Part 2 Notes:

Contractual: Qualified Environmental Technical Consulting Firm: Total \$27,300

- Technical Consultant Manager \$85 per hour x 148 hours = \$12,580
- Technical Consultant Staff \$72 per hour x 185 hours = \$13,320
- Senior Modeler \$175 per hour x 8 hours = \$1,400

Donated Services – Labor: KCSWCD \$50 per hour x 14 hours = \$700 Donated Services – Labor: Volunteers \$28.89 per hour x 845 hours = \$24,412 Travel: Technical Consultant mileage \$0.50 per mile x 520 miles = \$260 Travel: Donated KCSWCD/Volunteer mileage \$0.50 per mile x 3,455 miles = \$1,728 Supplies/Other: Printing and mailing survey letters, mailing plankton samples = \$1,140 Water Sample Lab Analysis: Health & Environmental Testing Laboratory = \$12,518 Plankton/Sediment Analysis: Water Resources Services, Inc = \$7,300 Sediment Assay and Analysis: St. Joseph's College of Maine = \$11,000 Add notes to clarify only 604b funds

#### Part 3. Sources of Non-federal Match and Estimated Amounts

Sources of Non-federal Match	Amount
Cash Match – Town of Vassalboro \$5,700, Town of Windsor via Threemile Pond \$3,000, CRLA \$1,318 applied to Task 3 HETL costs	\$10,018
Donated Services – Volunteer labor from the Tri-watershed area	\$25,112
Donated Travel Costs of volunteers	\$1,728
Total	\$36,858

# **Location Map**



#### from KCSWCD 2005 Tri-Watershed Based Management Plan