

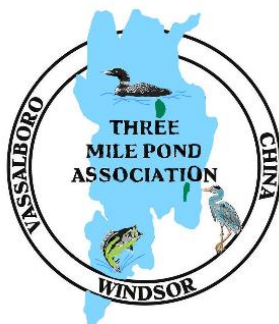
WATERSHED SURVEY REPORT

Threemile Pond



OCTOBER 2025

In partnership with:



THREEMILE POND WATERSHED SURVEY REPORT

Prepared for:



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ACKNOWLEDGEMENTS & DEDICATION

The following people and organizations were instrumental in the Webber Pond, Threemile Pond and Threecornered Pond Watershed Surveys, and deserve special recognition for their efforts:

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John Maleri	Maine Department of Environmental Protection
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Patrick Bryson	Nick Jose	David St. Pierre
Kevin Canty	Josie Kelly	Maggie Stickle
Elena Chagnovich	Tracy Kelly	Marianne Thouret
Amy Davidoff	Sandy Labreck	Donna Tyst
Anne D'Errico	Rebecca Lamey	

Funding: This survey was made possible in part by funding provided by the U.S. Environmental Protection Agency under Section 604(b) of the Clean Water Act. The funding is administered by the Maine Department of Environmental Protection in partnership with EPA. Additional funding was provided by the Town of Vassalboro, Lake Stewards of Maine, Maine Lakes, and the China Region Lakes Alliance. In-kind contributions were made possible by the many volunteers that participated in the survey as well as the Towns of Vassalboro, China, and Windsor.

Project partners: Kennebec County Soil & Water Conservation District (KCSWCD), Towns of Vassalboro, China, and Windsor, the China Region Lakes Alliance (CRLA), Vassalboro Conservation Commission (VCC), the Webber Pond Association, the Threemile Pond Association, the Threecornered Pond Community and the Maine Department of Environmental Protection. Project management was provided by Ecological Instincts.

Report prepared by: Ecological Instincts

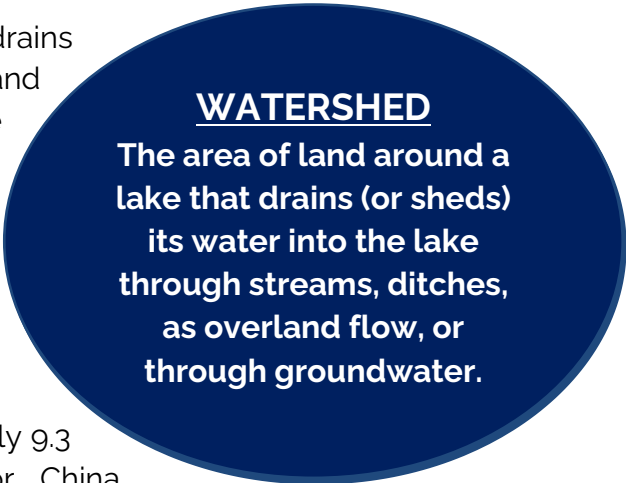
Cover photo: Threemile Pond (Ecological Instincts)

INTRODUCTION & BACKGROUND INFORMATION

THREEMILE POND WATERSHED

Threemile Pond is a 1,131 acre¹ Great Pond located in the towns of China, Vassalboro and Windsor in eastern Kennebec County, Maine. Threemile Pond is located between upstream Threecornered Pond and downstream Webber Pond. Threecornered Pond flows into Threemile Pond via Barton Brook on the south end of Threemile Pond. Threemile Pond flows northwest to Webber Pond via Seaward Mills Stream. Webber Pond flows southwest into Sevenmile Brook, which then drains into the Kennebec River.

The direct **watershed** refers to the area of land that drains directly into Threemile Pond via streams, ditches, and groundwater. Stormwater runoff moves through the watershed via these same channels. Therefore, it is important to document all land-use activities and erosion sites throughout the direct watershed that may currently be affecting water quality, or that have the potential to affect water quality in the future.



The Threemile Pond watershed covers approximately 9.3 square miles of land across four towns (Windsor, China, Vassalboro, and Augusta). Threemile Pond flows from south to north and has three main tributaries, the largest of which is Barton Book, which flows in from the south which includes inflow from Threecornered Pond. There is no dam and therefore no way to control water levels in Threemile Pond. In 2017, drought conditions completely dried up the outlet from Threemile Pond to Seaward Mill Stream, while high rain levels in 2023 and early 2024 caused flooding.

The 2003 Threemile Pond Total Maximum Daily Load (TMDL) Report characterized land use in the watershed as 7% agricultural, 2% forestry, 2% shoreline development, 5% non-shoreline development, 68% undeveloped land, and 16% open water (including the lake surface).² Threemile Pond, like Webber Pond and Threecornered Pond, has residential development on and near the shoreline (seasonal, rental, and year-round occupancy), and significant recreational use of the pond and adjacent areas (boating, swimming, fishing, hunting, camping, cross-country skiing, and snowmobiling). There is a public boat launch on the north end of the lake. All three ponds provide significant economic benefits to their communities through consumer spending and property taxes.

¹ Lakes of Maine, Threemile Pond, Lake Information: https://www.lakesofmaine.org/data/2022_Lake_Reports/MaineLakeReport_5416_1.html

² Threemile Pond PCAP-TMDL Report. Maine DEPLW 2022-0558, September 2003. <https://attains.epa.gov/attains-public/api/documents/actions/MEDEP/9763/107045>

WATER QUALITY - WHY IS WATER QUALITY AT RISK?

POLLUTED RUNOFF
Also called NPS or nonpoint source pollution. Soil, fertilizers, septic waste and other pollutants from diffuse sources across the landscape that are carried into a waterbody by rainfall.

The biggest pollution culprit from the watershed of Threemile Pond, as in other Maine lakes, is **polluted runoff** or nonpoint source (NPS) pollution. Stormwater runoff from rain and snowmelt picks up soil, nutrients and other pollutants as it flows across the land, and washes into the lake.

In an undeveloped, forested watershed, stormwater runoff is slowed and filtered by tree and shrub roots, grasses, leaves, and other natural debris on the forest floor. It then soaks into the uneven forest floor and filters through the soil.

In a developed watershed, however, stormwater does not always receive the filtering treatment the forest once provided. Rainwater picks up speed as it flows across impervious surfaces like rooftops, compacted soil, gravel camp roads and pavement, or picks up nutrients and sediment on logging roads and agricultural land and delivers these materials to the nearest ditch, stream or lake.

Threemile Pond has many private, unpaved roads around the shoreline as well as town roads, and a State Road, Rt 202 (N Belfast Ave) that crosses through the watershed north of the pond. Runoff from existing development and roads as well as any new development and/or seasonal conversions needs to be managed properly to prevent delivery of pollutants into the lakes; especially along the shoreline or at major stream crossings, where soils have a direct route into the lake.

WHY IS RUNOFF A PROBLEM?

The problem with runoff is not necessarily the water itself, but the sediment and nutrients that get carried by and delivered to lakes in stormwater runoff. **Phosphorus**, a naturally occurring element is considered a nutrient which provides food for algae/cyanobacteria and other aquatic plants. Phosphorus is found in soils, septic waste, animal waste and fertilizers.

Under natural conditions, phosphorus is limited in freshwater systems, which helps limit algae growth. However, when a lake receives extra phosphorus from developed land, algae growth increases dramatically. Sometimes this growth causes choking blooms, but more often it results in small changes in water quality that, over time, damage the ecology, aesthetics and economy of our lakes.



Algae bloom at Threemile Pond, October 2020 (TMPA).

Soil is the biggest source of phosphorus in Maine lakes. As every gardener knows, phosphorus and other nutrients are naturally present in the soil. So, we are essentially “fertilizing” our lakes and ponds with the soil that erodes from our driveways, roads, ditches, pathways and beaches. Studies have shown that runoff from developed areas has **5 to 10 times the amount of phosphorus** compared to runoff from forested areas. Runoff from agriculture and forestry can also contribute significant inputs of nutrients and sediments if not managed properly. Important steps to manage phosphorus from agricultural land include: fencing livestock out of streams, covering manure piles and maintaining natural vegetated buffers along waterways; whereas proper management of forests includes: limiting clear cutting, maintaining buffers and limiting runoff from roads that serve as access to the forest resources.

Water quality data has been collected in Threemile Pond since 1977. This data indicates that the lake is eutrophic, meaning it has high levels of biological productivity³ with an average water clarity at 2.8 m, average total phosphorus at 27 ppb, and average Chlorophyll-a at 19 ppb.⁴ Threemile Pond frequently experiences algal blooms, with Secchi disk transparency dropping below 2 m in most years. **Threemile Pond is currently listed as impaired on the State's Nonpoint Source Priority Watersheds List** due to this history of regular algal blooms. This means that due to the high phosphorus levels, excessive algae growth, and reduced water clarity, the lake is not meeting the state's water quality criteria, which are designed to ensure it can support recreation and healthy aquatic life.

WHY PROTECT OUR LAKES FROM POLLUTED RUNOFF?

- ▶ Phosphorus reductions from developed land are needed to help protect the water quality of Threemile Pond.
- ▶ The Maine Department of Inland Fisheries & Wildlife's Beginning with Habitat map viewer⁵ shows that the Threemile Pond watershed has significant wildlife habitats, including deer wintering areas and inland waterfowl/wading bird habitat.
- ▶ Threemile Pond provides excellent habitat for warmwater gamefish. These species include brown trout, smallmouth bass, largemouth bass, white perch and chain pickerel. Introduced species include black crappie, brown trout, and large & small mouth bass. Sea-run alewife migration into Threemile Stream is limited by water level in Seward Mills Stream.
- ▶ Threemile Pond is susceptible to low levels of dissolved oxygen at the bottom of the lake. As water temperature in the lake increases, oxygen levels decrease. Fish in the lake have to migrate to warmer water at the surface to escape areas with low oxygen and may encounter temperatures that can be stressful or even deadly, depending on the temperature and the species of fish.
- ▶ Under certain conditions, (i.e., low levels of dissolved oxygen, lake turnover), phosphorus

³ Eutrophic lakes are characterized by average water clarity <4 m, average total phosphorus concentrations >20 ppb, and average Chlorophyll-a concentrations >7 ppb.

⁴ Lakes of Maine, Threemile Pond, Lake Information (Available data through 2019): https://www.lakesofmaine.org/data/2022_Lake_Reports/MaineLakeReport_5416_1.html

⁵ Beginning with Habitat (BwH) Map Viewer: <https://webapps2.cgis-solutions.com/beginningwithhabitat/mapviewer/>

that has settled out into the lake sediment can be released into the water column and trigger an algal bloom.

- ▶ Threemile Pond has a history of algal blooms and has experienced worsening algae and cyanobacteria blooms over the past several years. These cyanobacteria blooms can produce microcystin toxins that can be harmful to children, adults, and pets. This negatively impacts use by property owners, people fishing, and other users.
- ▶ Sediment deposited into lakes and ponds from erosion also creates the ideal environment for invasive aquatic plant species. These species can be transported via boats to other lakes and ponds. Threemile Pond is categorized by DEP as being at high risk to introductions of invasive aquatic plants.⁶
- ▶ A 1996 University of Maine study found that lake water quality affects property values. For every three foot decline in water clarity, shorefront property values can decline as much as 10 to 20%! Declining property values affect individual property owners as well as the entire community.



⁶ Invasive Aquatic Plants-Risk to Maine Lakes map viewer.

<https://www.arcgis.com/apps/mapviewer/index.html?webmap=54b2a5c513a74af3bd0f42148dde34a9&extent=-72.9553,43.2447,-64.8419,46.5092>

SURVEY PURPOSE & METHODS

PURPOSE OF THE WATERSHED SURVEY

A watershed survey was conducted for Webber Pond, Threemile Pond, and Threecornered Pond as a part of an update to the Tri-Watershed-Based Management Plan (WBMP) for the three lakes. This was followed by a separate survey of agriculture and forestry in the watershed.

The purpose of the watershed survey is to:

- ▶ Identify and prioritize existing sources of polluted runoff, particularly soil erosion and stormwater runoff, in the Webber Pond, Threemile Pond and Threecornered Pond watersheds.
- ▶ Raise public awareness about the connection between land use and water quality, and the impact of soil erosion on the water quality of the lakes.
- ▶ Inspire people to become active watershed stewards.
- ▶ Provide the basis to obtain funding to assist in addressing identified NPS sites.
- ▶ Use the information gathered as one component of a long-term lake protection strategy.
- ▶ Provide recommendations to property owners so that they can voluntarily address NPS issues identified on their properties.

The purpose of the survey was NOT to point fingers at property owners with a documented NPS site, nor was it to seek enforcement action against property owners not in compliance with local ordinances. It is the hope that through future projects, the Webber Pond Association (WPA), the Threemile Pond Association (TMPA) and the Threecornered Pond Community (TCPC) can continue to work cooperatively with property owners, road associations, and towns to protect and restore water quality.



Volunteers gathered at Threemile Pond for the first day of the survey. Twenty watershed survey volunteers participated in the watershed survey over the three days.

Local participation was essential in completing the watershed survey and will be even more important in upcoming years. The survey effort was led by a steering committee consisting of representatives from WPA, TMPA, TCPC, KCSWCD, Vassalboro Conservation Commission, Maine DEP, and Ecological Instincts. The hope is that property owners will reflect on the results of the survey and implement some of the recommended conservation measures. Everyone in the Tri-

Watershed has a stake in helping restore the water quality of Webber Pond, Threemile Pond, and Threecornered Pond.

SURVEY METHODS

The Webber Pond, Threemile Pond and Threecornered Pond watershed survey was conducted on May 15-17, 2025 with the help of 20 volunteers from local groups and other watershed residents. Trained technical staff from Ecological Instincts and the Maine DEP helped lead volunteers across 19 watershed survey sectors across the three watersheds. Prior to the survey, 977 letters with informational handouts were sent to all of the property owners in the three watersheds, 432 of which went to residents in the Threemile Pond watershed. Twenty-nine properties in the three watersheds were not included in the survey at the property owner's request. This included property owned by 10 property owners in the Threemile Pond watershed, 11 property owners in the Threecornered Pond watershed, and nine property owners in the Webber Pond watershed. Seven letters were returned, and those properties were only surveyed if the property owner was present at the time of the survey and agreed to participate.

A volunteer training session was held on May 12, 2025 over Zoom, led by Maine DEP and Ecological Instincts. Threemile Pond was surveyed on May 15-16th. The watershed was split into nine sectors with an experienced technical leader paired with volunteers (often a local resident of the area) to locate NPS sites in each sector.

Sources of NPS pollution were identified within each sector and documented using Survey123 on smartphones and tablets. If there was not a direct connection from the potential source of NPS pollution to a ditch, stream, or wetland that flows to the lake, or to the lake itself, then the site was not documented (for example, an eroding hillslope in which the soil did not leave the site). Potential solutions were recommended, rough estimates were made for the cost of labor and materials for improving the sites, the overall impact to water quality and the level of technical assistance needed to complete the recommendations were determined in the field for each site.

The data collected during the survey was entered into an Excel database and the documented NPS sites were plotted on maps using Geographical Information Systems (GIS). Mapping coordinates were manually corrected if needed to account for poor satellite reception or human error in the field based on recorded address or tax map/lot number. Results of the survey were analyzed and are discussed in the next section.

April 14, 2025

Dear Threemile Pond Watershed Property Owner,

On May 15 – 17, 2025, the Webber Pond Association, Threemile Pond Association and Threecornered Pond Community will be conducting surveys of the connected Threecornered Pond, Threemile Pond, and Webber Pond watersheds. Follow-up work may be needed through the end of May to visit all the developed land in the watersheds.



The purpose of the surveys is to identify sources of soil erosion and stormwater runoff on developed land in the watersheds that are a very significant source of excess phosphorus levels. Excess phosphorus is the primary cause of severe algae and cyanobacteria blooms in Webber and Threemile ponds and a potential threat to water quality in Threecornered Pond. Both Webber and Threemile Ponds are included on the State of Maine's List of Impaired Lakes and Threecornered Pond is on the List of Threatened Lakes.

The surveys are a necessary step in the process of addressing the ongoing blooms in Webber and Threemile ponds, as well as protecting water quality in Threecornered Pond. The last surveys of the watershed were done more than 20 years ago. Current information is needed about the condition of the watershed to help develop long-term planning strategies that will improve water quality and allow us to obtain state and federal funding to address the most significant causes of excess phosphorus.

Participation in the survey is voluntary and non-regulatory. You will not be required to make any suggested improvements. However, grant funds may be available in the future if property owners want financial assistance to implement improvements. You do not need to be present for the survey, but you are welcome to participate and ask questions. Trained local volunteers will join an experienced technical leader to visit each property for about 10 minutes and will knock on the door when they arrive.

The more people that participate, the more we will understand where and how erosion and runoff are negatively impacting water quality. We would like to include your property in this survey. If you do not wish to participate, please email our Grant Administrator, Stephanie Taylor, at the Kennebec County Soil and Water Conservation District (KCSWCD) at staylor@kcswcd.org or call the KCSWCD office at (207) 480-3927 by May 5, 2025 and provide your name and address in order to have your property removed from the list.

The water quality of our ponds affects us all with their recreational, social, and economic value. If we do not take action to prevent more phosphorus from entering these ponds, then algae and cyanobacteria blooms will continue, and water quality will continue to get worse. Polluted lakes take a toll on the local economy, tax base and property values. We hope you will join in this effort by participating in the survey. For more information, visit the KCSWCD website: <https://www.kcswcd.org>. If you still have questions, feel free to send an email to [Susan Traylor at birchpt@aol.com for Webber, Kevin Cauty at kcanty327@gmail.com for Threemile, and Anne D'Errico at aderr1127@gmail.com for Threecornered].

Sincerely,

Brandon Clark, President, Webber Pond Association
Tom Whittaker, President, Threemile Pond Association
Anne D'Errico, Threecornered Pond Community

A letter was mailed to 432 property owners in the Threemile Pond watershed prior to the May 2025 survey.

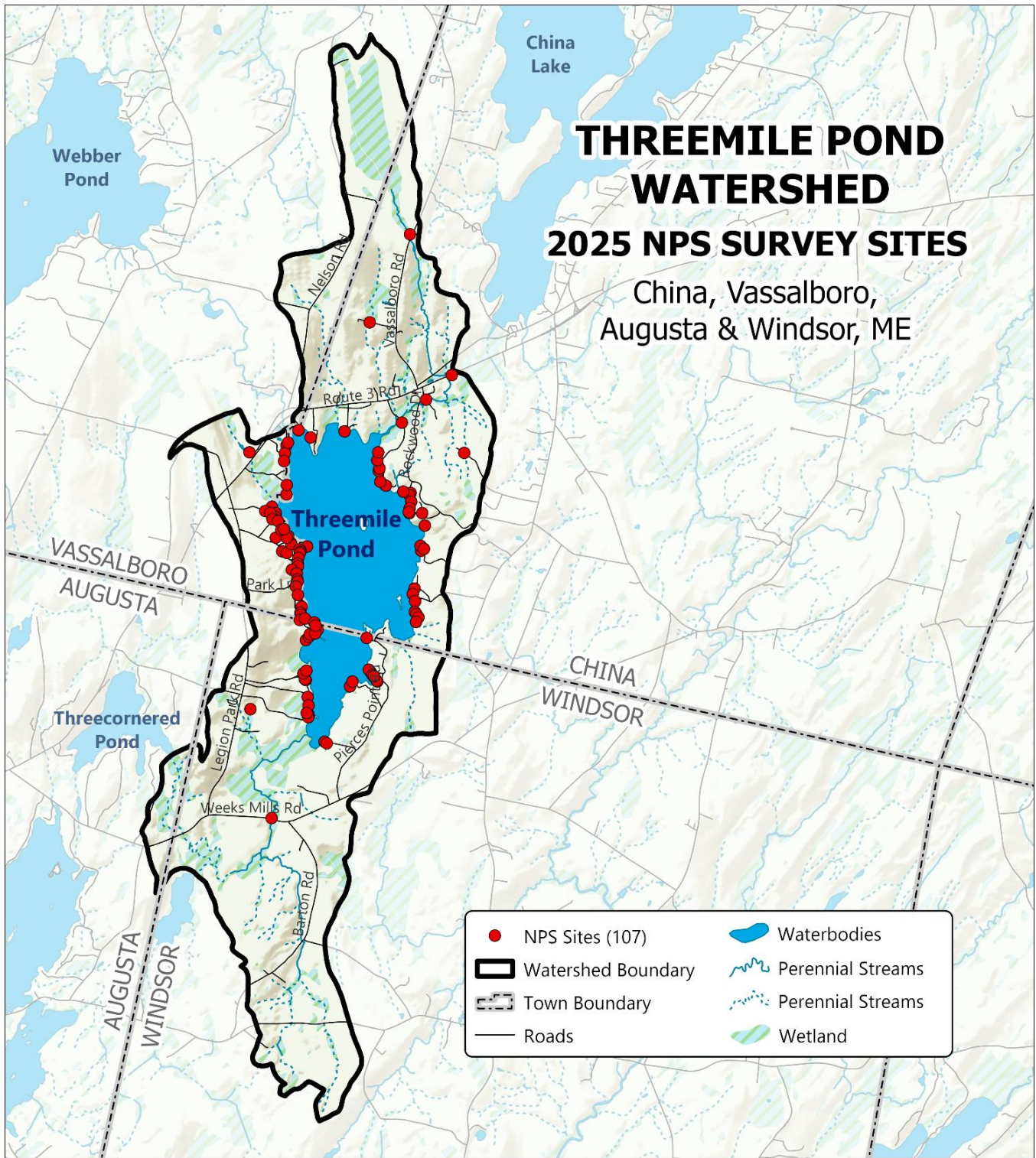
WATERSHED SURVEY RESULTS

SUMMARY OF SURVEY FINDINGS

Volunteers and technical staff identified **107 NPS sites across the Threemile Pond watershed** that are currently negatively affecting or have the potential to negatively affect the water quality in Threemile Pond (Figure 1, Attachment 2). Geographically, the majority of NPS Sites in the Threemile Pond watershed are located near the shoreline, with a handful of sites associated with roads and stream crossings in the outer watershed (Figure 1). Sites were documented across nine different land-use types (Figure 2). (Note: residential homes and driveways were documented separately in the field for tracking purposes.) Residential properties had the highest number of documented sites, followed by private roads and driveways.

- **Residential Development:** Residential sites make up the majority of NPS sites in the Threemile Pond watershed. In rural lake watersheds, residential development is typically located along the shoreline serviced by private gravel roads, and on major roadways. Sites around Threemile Pond are largely concentrated around private roads along the shoreline. Generally, these sites are considered low impact (42 of the 60 residential sites). High (2) and medium impact (16) residential sites should be considered high priority for watershed restoration. Programs such as the CRLA LakeSmart program can help provide guidance to property owners about designing and installing Best Management Practices (BMPs), including shoreline buffers, rain gardens and roof dripline trenches.
- **Roads:** Road sites in the Threemile Pond watershed are largely private road sites (21 out of 22 sites). Like many other watersheds, private gravel roads that access residential development along the shoreline have a large impact on water quality. The one other road site was on a town road and rated medium impact. The private road sites are distributed over 17 different roads, with the highest number of sites on Branstrom Road (3 sites). The two private road sites that ranked high impact are located on Riga Road and Park Lane, and should be considered high priority for watershed restoration.
- **Everyone has a stake in improving water quality.** That's because NPS sites were identified across a variety of different land uses across the watershed. The state, town, and residential property owners all need to work together to reduce the impact that NPS pollution has on water quality in Threemile Pond. It will be particularly beneficial for TMPA to work with WPA and the TCPCLA on communication, outreach and funding to help accomplish NPS reduction goals.

A complete list of NPS sites identified in the Threemile Pond watershed is provided in Attachment 2.



Data Source: ME Geolibary, USGS (NHD, NHDPlus)
 ME DEP (NPS Site Locations), Esri, USGS, NOAA
 Projection: NAD 1983 UTM Zone 19N
 Map Created By: K. Goodwin, Ecological Instincts, July 2025

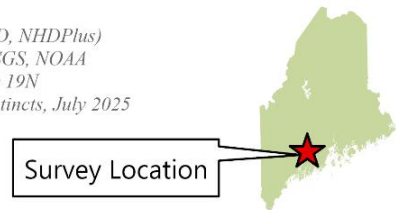
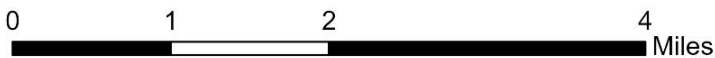


Figure 1. Map of NPS sites in the Threemile Pond watershed

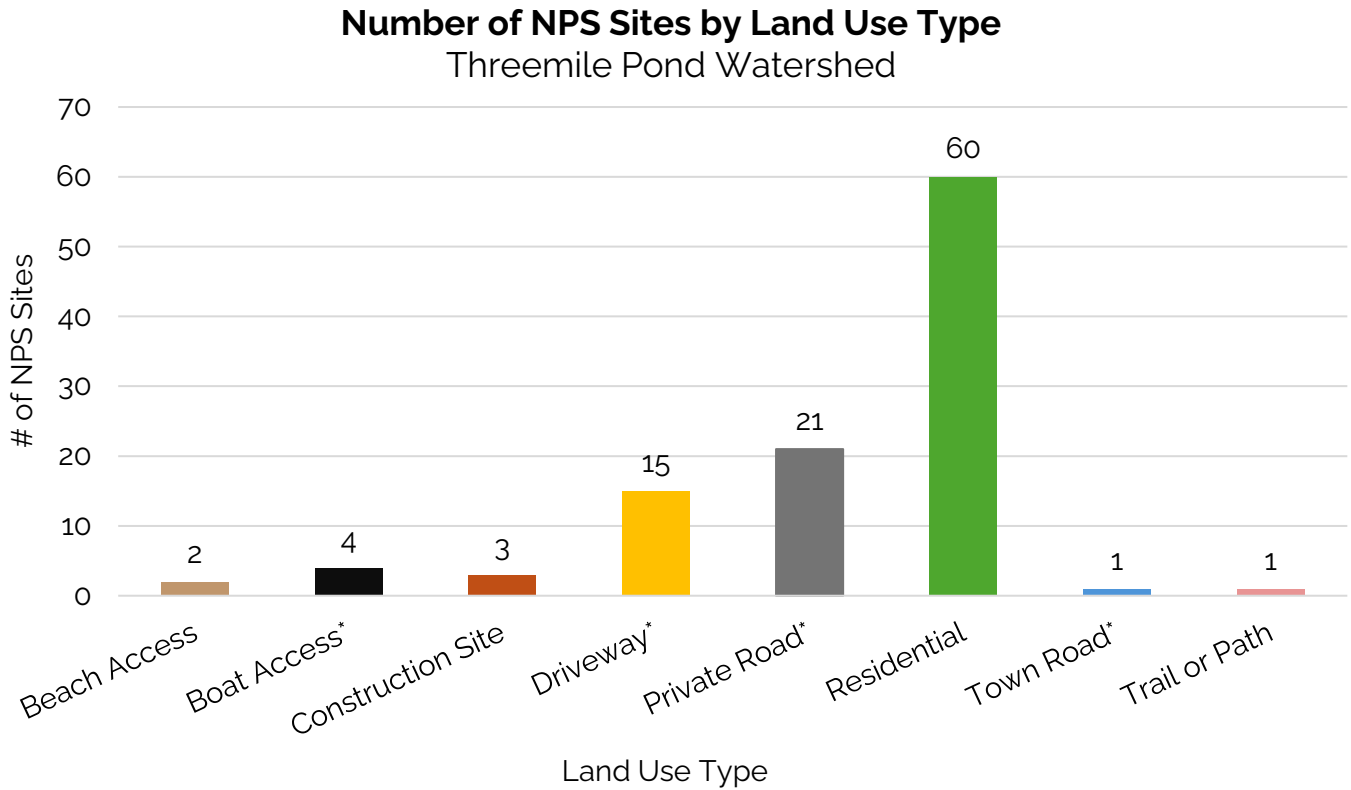


Figure 2. NPS sites in the Threemile Pond watershed by land-use type.

Impact of NPS Sites: The impact that documented NPS sites may have on water quality was determined in the field based on the proximity to a waterbody, and the magnitude of the problem. Factors such as slope, soil type, amount of eroding soil, and buffer size are also considered. A closer look at the estimated impact of these sites shows 7% of sites ranked high impact (7 sites), compared to 53% of sites ranking low impact (57 sites) and 40% of sites ranked medium impact (43 sites) (Table 1, Figures 3 & 4). The seven high impact sites are evenly distributed across driveway, private road, residential, and a construction site (Table 1). Medium impact sites are largely residential (16 sites) and private road sites (15). Of the 57 low impact sites, 74% are located on residential properties (42 sites), followed by private roads (15 sites), boat/beach access (4 sites) with the remaining two sites on a town road and construction site (Table 1).

Overall, very few sites in the Threemile Pond watershed are ranked high impact. Property owner participation will be essential to addressing NPS issues in the Threemile Pond watershed as many of the sites that considered higher priority are privately owned.

Table 1. Summary of NPS sites in the Threemile Pond watershed by land use and impact.

Land Use	High	Medium	Low	Grand Total	% Total
Residential	2	16	42	60	56%
Private Road*	2	16	3	21	20%
Driveway*	2	7	6	15	14%
Boat Access*		2	2	4	4%
Construction Site	1	1	1	3	3%
Beach Access			2	2	2%
Town Road*			1	1	1%
Trail or Path		1		1	1%
Total	7	43	57	107	100%

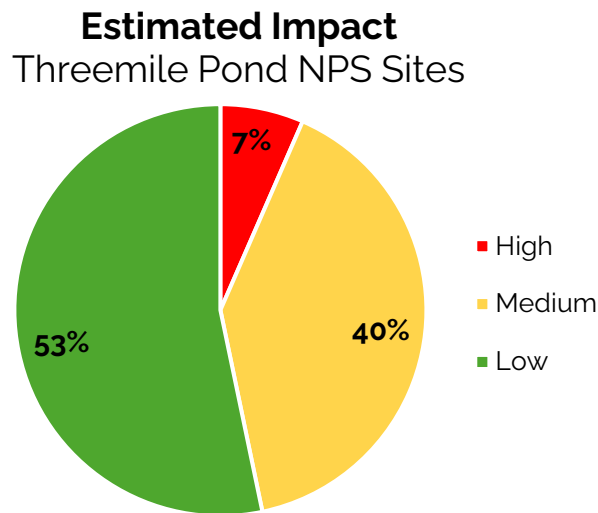
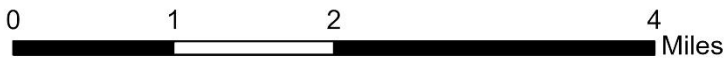
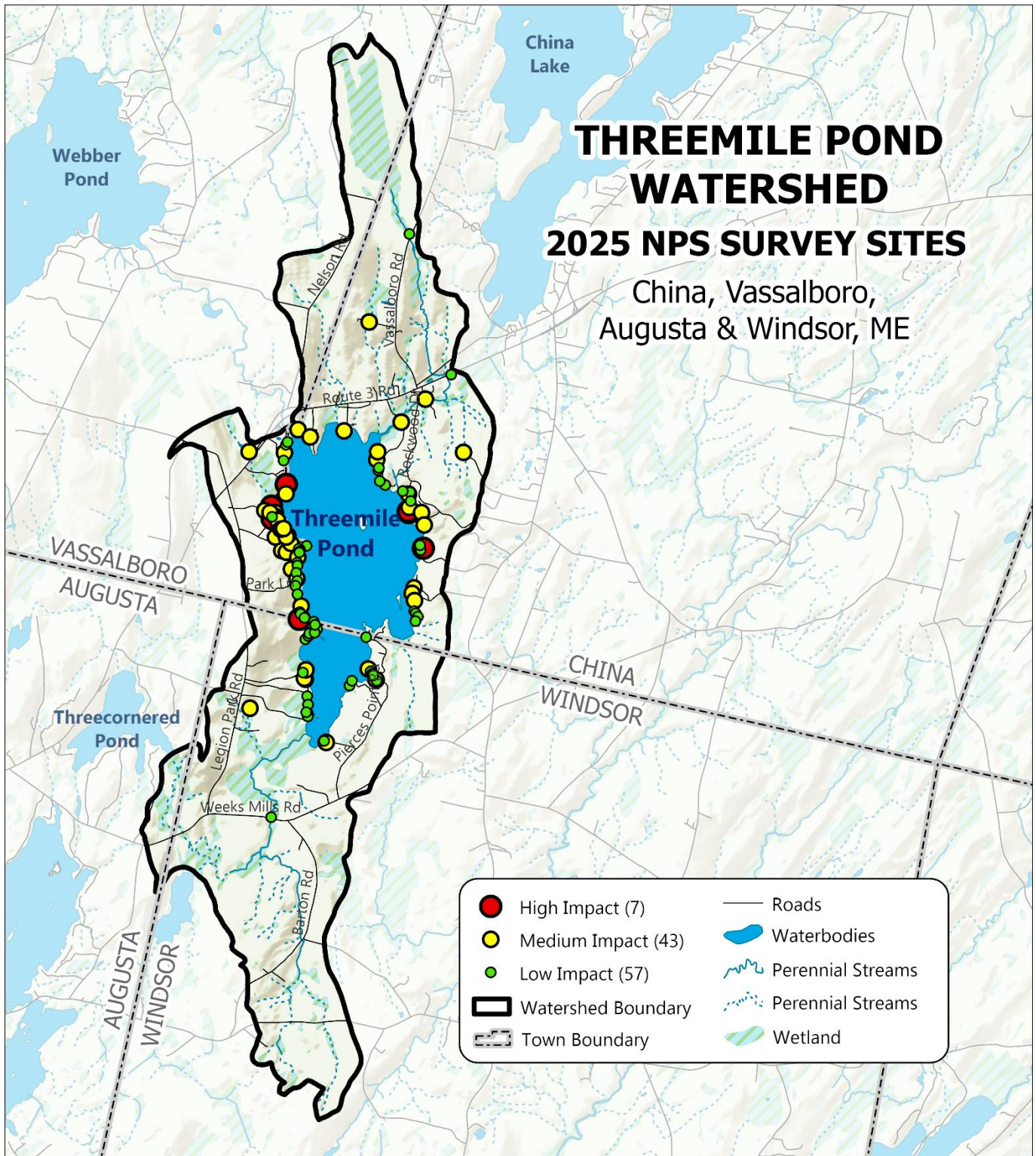


Figure 3. Estimated impact of NPS sites in the Threemile Pond watershed.



Data Source: ME Geolibrary, USGS (NHD, NHDPlus)
 ME DEP (NPS Site Locations), Esri, USGS, NOAA
 Projection: NAD 1983 UTM Zone 19N
 Map Created By: K. Goodwin, Ecological Instincts, July 2025

Survey Location



Figure 4. Map of NPS sites in the Threemile Pond watershed by impact ranked low to high.

Residential: Residential sites made up 56% (60 sites) of sites identified in the Threemile Pond watershed. Common NPS problems identified on residential sites included bare soil, shoreline erosion and inadequate shoreline buffers. Roof runoff and problems related to unstable shoreline access were also frequently noted. Only two of the 60 residential sites ranked high impact, 16 ranked medium impact, and 42 ranked low impact.



Bare soil on a residential site with an inadequate shoreline buffer

Roads & Driveways: Road sites generally have larger erosion problems, which in turn result in a more significant impact on water quality and can be more costly than other fixes. Four road sites in the Threemile Pond Watershed ranked high impact and should be prioritized for remediation in the near future.

- ▶ Including town roads, private roads and driveways, there are 37 road-based sites (35%).
- ▶ The greatest number of problems were identified on **private roads**, followed by driveways, with only one town road site (Table 1). Many of the problems on private roads are related to poorly functioning culverts and shoulder erosion. Only two of the 21 private road sites ranked high impact. Branstrom Road had the greatest number of sites with three low or medium impact sites.
- ▶ The one **town road** site was on Weeks Mills Road, and is associated with a culvert that is too short for the road which has resulted in erosion along the sides. The site was rated as low impact.
- ▶ The 15 **driveway** sites are associated with unpaved driveways and usually involved different types of surface erosion. Largely they are low or medium impact, with only two driveway sites being ranked high impact.



An unstable inlet/outlet around a culvert on a private gravel road





Beach/Boat Access: Four boat access sites were identified during the survey and two beach access sites. These are primarily related to shoreline erosion, where access points are making the shoreline less stable. These sites are all rated as low or medium impact.



A high impact driveway site that is eroding into a stream to Threemile Pond

Other: There were four sites identified on other land uses, including one site on a trail or path and three construction sites. One of the construction sites was ranked high impact due to areas of bare soil on a steep slope resulting in gully erosion. The other sites were ranked low or medium impact and could be accomplished by the property owners at a low cost.

Table 2. Common NPS issues and recommendations by land use category.

Land Use	Common Issues	Recommendations	Photo
Residential	Surface Erosion	Runoff Diverters, Erosion Control Mulch, Revegetate	
	Bare Soil	Limit Raking, Reseed Lawn, Erosion Control Mulch	
	Lack of Vegetation	Plant Buffer or Rain Garden, Live Stakes	
	Roof Runoff Erosion	Infiltration Trench, Drywell at Gutter Downspout	
	Unstable Paths	Infiltration Steps, Crushed Stone, Runoff Diverters, Erosion Control Mulch	
Private Road/Driveway	Surface Erosion	Crown, Add Gravel, Waterbars	
	Unstable/Broken Culverts	Install or Replace Culvert, Armor Inlet/Outlet, Remove Clog	
	Road Shoulder Erosion	Vegetate Shoulder, Remove Grader Berms, Install Turnouts, Install Ditches	
	Ditch Erosion	Reshape Ditch, Armor or Vegetate Ditch, Install Turnouts, Check Dams, Sediment Pools	
	Plow/Grader Berm	Remove Berm, Work with Contractor	
Beach & Boat Access	Surface Erosion	Add Crushed Stone, Runoff Diverters	
	Bare Soil	Erosion Control Mulch, Add Crushed Stone, Revegetate	
	Unstable Shoreline Access	Define Foot Paths, Erosion Control Mulch, Add Vegetation, Infiltration Steps, Waterbars	
	Shoreline Erosion	Toe Slope Protection, Add Vegetation, Establish Buffer	
Construction	Surface Erosion	Silt Fence/Erosion Control Berms, Revegetate	
	Bare Soil	Erosion Control Mulch, Seed/Hay	

Cost of NPS Sites: Along with recommendations for addressing erosion at identified NPS sites, surveyors estimated the cost of labor and materials for improving each site. Fourteen of the 107 sites are estimated to incur a high cost (over \$5,000), 30 are estimated to be medium cost (\$1,000-\$5,000), and the remaining 63 of sites have a low estimated cost to fix (under \$1,000). The high cost sites are mostly associated with private roads (8 sites) with a few sites on residential properties, driveways and a construction site. While some roads have road associations to coordinate improvements, not all private roads do. Strong property owner commitment to erosion reduction is needed to reduce runoff that negatively impacts water quality as many of the sites that should be prioritized are privately owned.

Estimated Cost Threemile Pond NPS Sites

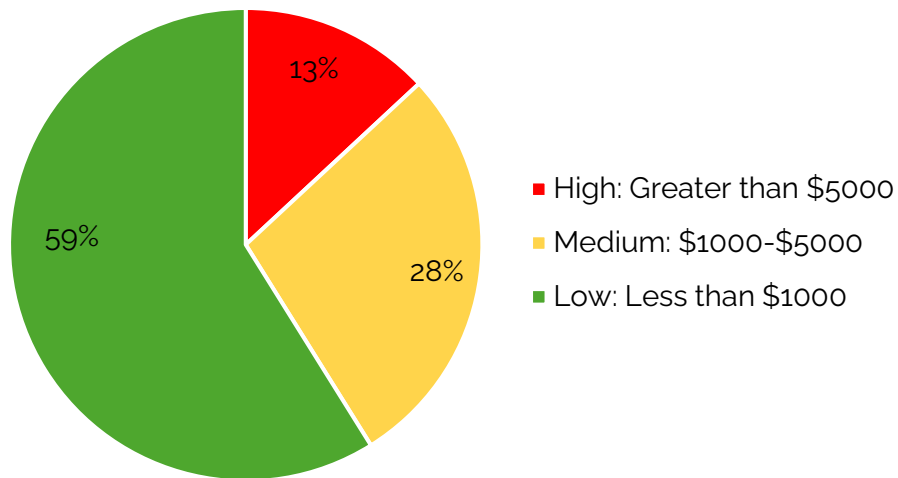


Figure 5. *Estimated cost of NPS sites in the Threemile Pond watershed.*

NEXT STEPS - WHERE DO WE GO FROM HERE?

Improving the NPS sites identified during the Threemile Pond watershed survey will require efforts by state and local municipal officials, TMPA, road associations and individual property owners. While prioritizing sites in the watershed is a good first step, a more detailed plan is needed (1) to ensure that high impact sites are addressed within a reasonable timeframe, (2) to identify potential funding sources, and (3) to identify the roles and responsibilities of local stakeholders. A new 10-year Tri-Watershed-Based Management Plan for Webber Pond, Threemile Pond, and Threecornered Pond is currently being developed, which will include a detailed plan for addressing NPS sites identified in all three watersheds. Grant funds may be available to help once the updated Tri-Watershed-Based Plan is approved by Maine DEP and the US EPA.

Additional next steps may include:

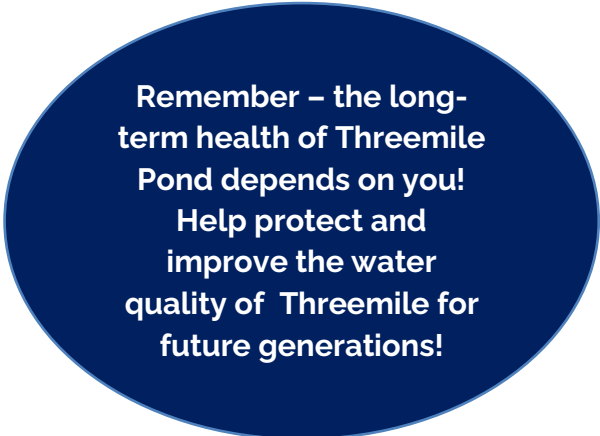
1. Presenting the results of the survey to the public, distributing summaries of the survey results to key stakeholders, and posting copies of the survey reports on the KCSWCD website and lake association websites and Facebook pages.

2. Sending letters to all property owners with a documented NPS site, with guidance and recommendations for addressing the problems.
3. Prioritizing NPS sites for targeted outreach to property owners and for allocation of future funding.
4. Identifying potential LakeSmart properties and developing a strategic outreach strategy to address the numerous low impact shoreline sites.
5. Applying for grants to begin addressing the identified problems across the watershed.

In addition to these actions which will be carried out by the steering committee and local organizations, there are many things that individual property and other stakeholders can start doing now to collectively help with this effort.

Individual Property Owners

- Replace portions of your lawn with a rain garden or buffer strip or let lawn areas naturalize to filter pollutants before they reach the lake.
- Install native vegetation along the shoreline to stabilize the soil, improve wildlife habitat and help keep shoreline areas shaded and cool.
- Stop mowing and raking your shoreline and other parts of your property to bare soil. Let lawn and raked areas revert back to natural vegetation. Deep shrub and tree roots help hold the soil in place and help prevent erosion.
- Avoid exposing bare soil. Seed and mulch bare areas. Use erosion control mulch.
- Never use herbicides or pesticides in the shoreland zone unless you have a permit.
- Avoid using fertilizer within 250 ft. of the lake and always get a soil test before applying fertilizer outside the shoreland zone to determine the correct application rate.
- Read "Permitting ABCs" (below) and call your local Code Enforcement Officer and Maine DEP before starting any cutting or soil disturbance projects.
- Maintain septic systems properly. Pump septic tanks (every 2 to 3 years for year-round residences; 4-5 years if seasonal) and upgrade marginal systems or old systems installed prior to the current state plumbing codes for septic systems (pre-1995).
- Support the TMPA by becoming a member today and get involved with their programs and activities.



Remember – the long-term health of Threemile Pond depends on you! Help protect and improve the water quality of Threemile for future generations!

State & Municipal Officials

- Conduct regular maintenance on town/state roads in the watershed.
- Enforce shoreland zoning and other ordinances to ensure the long-term protection of Threemile Pond.

- Participate in and support long-term watershed management projects by serving on watershed committees, serving as a sponsor for grant applications and setting aside funding for long-term water quality monitoring and lake protection projects.
- Promote education and training for road crews, code enforcement officers, selectmen, planning board members and other decision makers.

CONSERVATION PRACTICES FOR HOMEOWNERS

After reading this report or requesting a LakeSmart evaluation, you probably have a general idea about how to make your property more lake friendly. However, making the leap from concept to construction may be a challenge.

A series of fact sheets are available that answer many common how-to questions about installing Best Management Practices (BMPs). The fact sheets profile 20 common conservation practices and include detailed instructions, diagrams and color photos about installation and maintenance. The series includes the following:

Fact sheets are available to help you install conservation practices on your property.

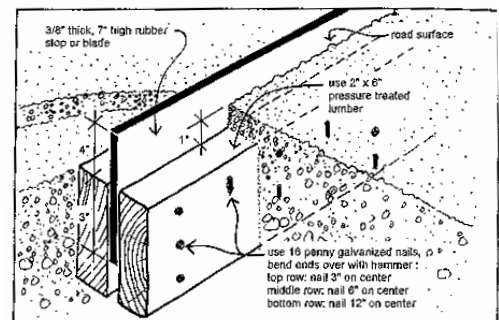
Download at:

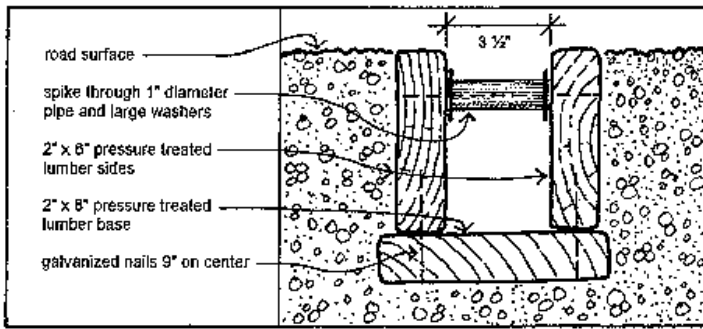
<https://www.maine.gov/dep/land/watershed/materials.ht>

- Construction BMPs
- Dripline Trench
- Dry Wells
- Erosion Control Mix
- Infiltration Steps - I
- Infiltration Trench
- Infiltration Steps - Retrofit
- Lake Shoreline Riprap
- Live staking
- Open-Top Culverts
- Paths and Walkways
- Permitting
- Planting Vegetation
- Plants - full sun & dry
- Plants - full sun & moist to wet
- Plants - shade & dry
- Plants - shade & moist to wet
- Plants - part sun & dry
- Plants - part sun & moist to wet
- Rain Barrels
- Rain Gardens
- Rubber Razors
- Turnouts
- Waterbars

Below are a few examples of Best Management Practices (BMPs), including how to install a rubber razor and open top culvert; both of which are used for getting water off of gravel roads and driveways. A drywell is useful for collecting runoff from gutters. Similarly, a gravel dripline trench can be used on homes that do not have gutters. These are typically 18 - 24" wide and slightly longer than the roof.

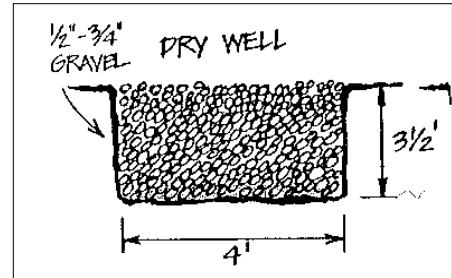
Rubber Razor Blade: Use this structure in a gravel driveway or camp road. It can be plowed over only if the plow operator is aware of its presence and lifts the plow blade slightly. Place it at a 30 degree angle to the road edge and direct the outlet toward a stable vegetated area.





Open Top Culvert: Use this structure in a gravel driveway or camp road that does not get plowed in the winter. Place it at a 30 degree angle to the road edge and point the outlet into stable vegetation. Remove leaves and debris as needed.

Drywell: Use a drywell to collect runoff from roof gutter downspouts. Drywells can be covered with sod, or left exposed for easy access and cleanout. Drywells and infiltration trenches work best in sandy or gravelly soils.



PERMITTING ABC'S

Protection of Maine's watersheds is ensured through the goodwill of lake residents and through laws and ordinances created and enforced by the State of Maine and local municipalities. The following laws and ordinances require permits for activities adjacent to wetlands and waterbodies.

Shoreland Zoning Law - Construction, clearing of vegetation and soil movement within 250 feet of lakes, ponds, and many wetlands, and within 75 feet of most streams, falls under the Shoreland Zoning Act, which is administered by the Town through the Code Enforcement Officer and the Planning Board.

Natural Resources Protection Act (NRPA) - Soil disturbance & other activities within 75 feet of the lakeshore or stream also fall under the NRPA, which is administered by the Maine DEP.

Contact the Maine DEP and Town Code Enforcement Officer if you have any plans to construct, expand or relocate a structure, clear vegetation, create a new path or driveway, stabilize a shoreline or otherwise disturb the soil on your property. Even if projects are planned with the intent of enhancing the environment, contact the DEP and the town to be sure.

HOW TO APPLY FOR A PERMIT BY RULE WITH THE MAINE DEP

To ensure that permits for small projects are processed swiftly, the DEP has established a streamlined permit process called **Permit by Rule (PBR)**. PBR applications are not being submitted through the Maine Enterprise Licensing System (MELS) Hub which allows the DEP to review the project.

- Submit a PBR application via MELS. Visit DEP's MELS Hub to learn how to sign up for an account and submit your application: <https://www.maine.gov/dep/mels/hub.html>.
- The PBR becomes effective 20 working days after the DEP receives the full and complete submission in MELS, unless the DEP approves or denies the PBR, or requests additional

information, prior to that date. If the DEP does not speak or write to the applicant within this 20-working day period regarding the submission, the applicant may proceed to carry out the activity.

- Follow all standards required for the specific permitted activities to keep soil erosion to a minimum. It is important that you obtain a copy of the standards so you will be familiar with the law's requirement.

CONTACT INFORMATION

Kennebec County Soil & Water Conservation District

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2305 N. Belfast Ave. Augusta, ME 04330
(207)480-3927 or (207) 405-2874 staylor@kcswcd.org

Threemile Pond Association

Ryan Gross, President
Email: Threemilepondassociation@gmail.com
Facebook: [facebook.com/TMP.ME](https://www.facebook.com/TMP.ME)

Maine Department of Environmental Protection

17 State House Station, Augusta, Maine 04333
Toll Free in Maine (800) 452-1942 or (207) 287-7688 ~ Web:
<http://www.maine.gov/dep/land/watershed/index.html>

PUBLICATIONS & OTHER RESOURCES

A Guide to Forming Road Associations. Maine DEP. July 2014. DEPLW-1071. 21 pgs.
https://www.maine.gov/dep/land/watershed/road_assoc_guide_2020_edit.pdf

Conservation Practices for Homeowners. Maine DEP and Portland Water District. Conservation Fact Sheet Series. <https://www.maine.gov/dep/land/watershed/materials.html>

Contractors Certified in Erosion Control Practices. Maine DEP.
<http://www.maine.gov/dep/land/training/ccec.html>

Environmental Fact Sheets, Brochures, and Posters. Portland Water District.
<https://www.pwd.org/publications>

Gravel Road Maintenance Manual: A Guide for Landowners on Camp and Other Gravel Roads. Kennebec County SWCD and Maine DEP. April 2016.
http://www.maine.gov/dep/land/watershed/camp/road/gravel_road_manual.pdf

China Region Lakes Alliance. <https://www.crlamaine.org/about1>

LakeSmart. Lakes Environmental Association. <https://mainelakes.org/resources/lakesmart/>

Maine Shoreland Zoning—A Handbook for Shoreland Owners. Maine DEP. 2008. DEPLW0674-D08. 37 pgs. <https://files.aptuitivcdn.com/DrynVOJoLO-1457/docs/Lake%20Library/Shoreland-Owners-Handbook-2008.pdf>

The Lake Book: A Handbook for Lake Protection. Maine Lakes Society. 61 pgs.
<https://www.lakes.me/lakebook>

ATTACHMENTS

Attachment 1- Watershed Survey Field Data Sheet.....p. 20

Attachment 2- List of NPS Sites (Threemile Pond).....p. 22

Attachment 1- Watershed Survey Field Data Sheet

Final Site # _____ Checked by _____ Date _____

Lake Watershed Survey

REMINDER: Only write up if there is likely transport of sediment or phosphorus into the lake.

Sector & Site _____ Date _____ Surveyor Initials _____

Location (house #, road, utility pole #) _____

Building Color _____ Landowner Name _____

Tax Map & Lot _____ Talked to Landowner? _____

Flow into Lake via (check ONE): Directly into Lake Stream Ditch Minimal Vegetation

Note: If flow does not make it into lake, do not fill out a form. It would not be considered a site.

GPS Coordinates in _____
 Latitude/Longitude Decimal _____
Degrees (NAD83 or WGS84) _____

Land Use/Activity Circle <u>ONE</u>	Description of Problems Circle ALL that apply	
State Road Town Road Private Road Driveway Residential Commercial Municipal / Public Beach Access Boat Access Trail or Path Logging Agriculture Construction Site OTHER:	Surface Erosion Slight Moderate Severe Culvert Unstable Inlet / Outlet Clogged Crushed / Broken Undersized Ditch Slight Erosion Moderate Erosion Severe Erosion Bank Failure Undersized Road Shoulder Erosion Slight Moderate Severe Roadside Plow/Grader Berm	Soil Bare Uncovered Pile Delta in Stream/Lake Winter Sand Roof Runoff Erosion Shoreline Undercut Lack of Shoreline Vegetation Inadequate Shoreline Vegetation Erosion Unstable Access Agriculture Livestock Access to Waterbody Tilled Eroding Fields Manure Washing off Site OTHER:

Slope: Flat Moderate Steep Size of Area Exposed or Eroded (length & width): _____

Site is linked to another: Cause of Site # _____ Result of Site # _____

Recommendations		
<p>Culvert</p> <ul style="list-style-type: none"> Armor Inlet/Outlet Remove Clog Replace Enlarge Lengthen Install Plunge Pool <p>Ditch</p> <ul style="list-style-type: none"> Vegetate Armor with Stone Reshape Ditch Install Turnouts Install Ditch Install Check Dams Remove debris/sediment Install Sediment Pools <p>Other Suggestions:</p>	<p>Roads / Driveways</p> <ul style="list-style-type: none"> Remove Grader/Plow Berms Build Up Add New Surface Material <ul style="list-style-type: none"> • Gravel • Recycled Asphalt • Pave Reshape (Crown) Vegetate Shoulder Install Catch Basin Install Detention Basin Install Runoff Diverters <ul style="list-style-type: none"> • Broad-based Dip • Open Top Culvert • Rubber Razor • Waterbar <p>Construction Site</p> <ul style="list-style-type: none"> Mulch Silt Fence / EC Berms Seed / Hay Check Dams 	<p>Paths & Trails</p> <ul style="list-style-type: none"> Define Foot Path Stabilize Foot Path Infiltration Steps Install Runoff Diverter (waterbar) <p>Roof Runoff</p> <ul style="list-style-type: none"> Infiltration Trench @ roof dripline Drywell @ gutter downspout Rain Barrel <p>Other</p> <ul style="list-style-type: none"> Install Runoff Diverter (waterbar) Mulch / Erosion Control Mix Rain Garden Infiltration Trench Water Retention Swales <p>Vegetation</p> <ul style="list-style-type: none"> Establish Buffer Add to Buffer No Raking Reseed bare soil & thinning grass

Impact: Circle one choice in each column, add the three selected numbers together, and then circle the site's corresponding impact rating (high, medium, or low).

Type of Erosion	Area	Buffers and Other Filters	IMPACT
Gully - 3	Large - 3	No filter, all channelized direct flow into lake or stream - 3	<u>High:</u> 8-9 pts
Rill - 2	Medium - 2	Some buffer or filtering, but visible signs of concentrated flow and/or sediment movement through buffer and into lake - 2	<u>Med:</u> 6-7 pts
Sheet - 1	Small - 1	Significant buffer or filtering* - 1	<u>Low:</u> 3-5 pts

* Confirm there is likely sediment/runoff delivery. If not, do not write up as a site.

Cost to Fix

High: Greater than \$2,500
 Medium: \$500-\$2,500
 Low: Less than \$500

Technical Level to Install

High: Site requires engineered design
 Medium: Technical person should visit site & make recommendations
 Low: Property owner can accomplish with reference materials

Potential Youth Conservation Corps project? Yes No

Attachment 2- Threemile Pond Watershed Survey Results

Site	Location	Flow into lake via	Land Use	Problems	Slope	Size of Exposed / Eroded Area	Recommendations	Impact	Cost	Technical level
1-01	Bridge on Weeks Mills Rd	Stream	Town Road*	Culvert-Too short/long; Surface Erosion-Sheet	Steep	1 x 10	Armor Inlet/Outlet, Adjust Length	Low	Medium: \$1000-\$5000	High: Site requires engineered design
2-01	Casey Rd	Directly into lake	Residential	Shoreline-Erosion; Soil-Bare; Surface Erosion-Sheet	Flat	20 x 5	Add to Buffer, Reseed bare soil & thinning grass; Mulch/Erosion Control Mix; Cover bare soil	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
2-02	Casey Rd	Minimal Vegetation	Residential	Roof Runoff Erosion; Soil-Bare; Surface Erosion-Sheet	Flat	20 x 15	Infiltration Trench @ roof dripline; Reseed bare soil & thinning grass, No Raking; Mulch/Erosion Control Mix; Gravel walkway to stairs	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
2-03	Casey Rd	Minimal Vegetation	Residential	Raking, large firepit at water edge; Shoreline-Inadequate Shoreline Vegetation; Soil-Bare; Surface Erosion-Sheet	Moderate	10 x 10	Add to Buffer, No Raking, Reseed bare soil & thinning grass	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
2-04	Casey Rd	Directly into lake	Beach Access	Shoreline-Unstable Access; Soil-Bare; Surface Erosion-Sheet	Moderate	5 x 5	Define Foot Path, Stabilize Foot Path, Infiltration Steps; Add additional gravel	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
2-05	Casey Rd	Minimal Vegetation	Residential	Bare soil under deck close to water; Roof Runoff Erosion; Shoreline-Inadequate Shoreline Vegetation; Soil-Bare; Surface Erosion-Sheet, Surface Erosion-Rill	Moderate	30 x 20	Infiltration Trench @ roof dripline; Add to Buffer, Reseed bare soil & thinning grass; Gravel under deck	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials

Site	Location	Flow into lake via	Land Use	Problems	Slope	Size of Exposed / Eroded Area	Recommendations	Impact	Cost	Technical level
2-06	Stream crossing on Casey Rd	Stream	Private Road*	Road Shoulder Erosion-Sheet; Culvert-Unstable inlet/outlet, Culvert-Too short/long, Culvert-Diameter too small; Surface Erosion-Gully	Flat	5 x 5	Armor Inlet/Outlet; Add gravel, Reshape (Crown)	Medium	Medium: \$1000-\$5000	Medium: Technical person should visit site & make recommendations
2-07	Rowe Rd	Directly into lake	Boat Access*	Steep access road mostly vegetated lots of acorns; Shoreline-Erosion, Shoreline-Unstable Access, Shoreline-Undercut, Shoreline-Inadequate Shoreline Vegetation; Soil-Bare; Surface Erosion-Rill	Moderate	20 x 15 and 10 ft shoreline	Install Runoff Diverters-Rubber Razor; Erosion Control Mulch; Add to Buffer; Toe slope protection on undercut bank and vegetation above	Low	Low: Less than \$1000	Medium: Technical person should visit site & make recommendations
2-08	Cunningham Rd at snowmobile crossing	Minimal Vegetation	Private Road*	Road runoff flowing down road into 206 Cunningham boat access road; Berm; Surface Erosion-Rill, Surface Erosion-Sheet	Moderate	100 x 15	Install Ditch; Remove Grader/Plow Berms, Build Up, Add gravel, Reshape (Crown), Install Catch Basin	Medium	High: Greater than \$5000	Medium: Technical person should visit site & make recommendations
2-09	Cunningham Rd	Directly into lake	Boat Access*	Water flowing off road onto access road channelized and flows to lake; Surface Erosion-Gully	Moderate	50 x 5	Mulch/Erosion Control Mix; No place for runoff diverters	Medium	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
2-10	Duck Ln	Stream	Driveway*	Roof Runoff Erosion; Surface Erosion-Sheet	Flat	15 x 20	Add gravel; Drywell @ gutter downspout; Mulch/Erosion Control Mix; Define parking area revegetate above to right of house	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials

Site	Location	Flow into lake via	Land Use	Problems	Slope	Size of Exposed / Eroded Area	Recommendations	Impact	Cost	Technical level
2-11	Duck Ln	Minimal Vegetation	Residential	Steep eroding bank, attempts to retain soil, large tree fallen on top of bank; Shoreline-Erosion, Shoreline-Inadequate Shoreline Vegetation, Shoreline-Unstable Access; Soil-Bare; Surface Erosion-Sheet	Steep	20 x 10	Mulch/Erosion Control Mix; Additional terracing with coir logs and retaining walls, live stakes, other native vegetation	Medium	High: Greater than \$5000	Medium: Technical person should visit site & make recommendations
3-01	Sandy Point Rd	Stream	Driveway*	Ditch-Sheet Erosion, Ditch-Rill Erosion; Culvert-Unstable inlet/outlet; Surface Erosion-Rill	Moderate	60 x 1	Armor Inlet/Outlet, Install Plunge Pool; Vegetate, Armor with Stone	Medium	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
3-02	Dark Harbor Rd	Directly into lake	Residential	Shoreline-Erosion; Surface Erosion-Rill	Moderate	35 x 2	Add gravel; Define Foot Path, Stabilize Foot Path; Add to Buffer, No Raking	Medium	Medium: \$1000-\$5000	Low: Property owner can accomplish with reference materials
3-03	Dark Harbor Rd	Minimal Vegetation	Driveway*	Road Shoulder Erosion-Rill; Surface Erosion-Sheet, Surface Erosion-Rill	Moderate	100 x 10	Install Runoff Diverters-Rubber Razor, Reshape (Crown); Add to Buffer; Define driveway end and plant. Replace driveway extension in front of houses with narrower mulched path	Medium	Medium: \$1000-\$5000	Low: Property owner can accomplish with reference materials
3-04	Culvert next on Sandy Point Rd	Stream	Private Road*	Road Shoulder Erosion-Sheet; Culvert-Unstable inlet/outlet; Surface Erosion-Sheet	Moderate	100 by 2 ft on the road, and 12 by 3 ft on the bank	Armor Inlet/Outlet; Remove Grader/Plow Berms, Install Runoff Diverters-Broad-based Dip, Install Runoff Diverters-Open Top Culvert, Install Runoff Diverters-Rubber Razor	Medium	Medium: \$1000-\$5000	Medium: Technical person should visit site & make recommendations
3-05	Culvert near 3-way intersection on Sandy Point Rd	Stream	Private Road*	Road Shoulder Erosion-Sheet; Culvert-Unstable inlet/outlet, Culvert-Clogged; Surface Erosion-Sheet	Flat	20 x 10	Armor Inlet/Outlet, Remove Clog; Adjacent landowner says it hasn't overtopped and washed out the road since the culvert was replaced (a year ago?)	Medium	High: Greater than \$5000	Medium: Technical person should visit site & make recommendations

Site	Location	Flow into lake via	Land Use	Problems	Slope	Size of Exposed / Eroded Area	Recommendations	Impact	Cost	Technical level
3-06	Top of King Rd	Minimal Vegetation	Private Road*	Surface Erosion-Rill	Moderate	300 x 10	Build Up, Reshape (Crown), Install Runoff Diverters-Rubber Razor, Install Runoff Diverters-Open Top Culvert; Better maintenance needed on existing runoff diverters	Medium	Medium: \$1000-\$5000	Medium: Technical person should visit site & make recommendations
3-07	Kelly Rd	Directly into lake	Residential	Shoreline-Erosion;	Steep	10 x 1	Add to Buffer; Mulch/Erosion Control Mix, Rip Rap; Add stone and mulch to top of garden slope	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
3-08	Kelly Rd	Directly into lake	Driveway*	Evidence of sediment transportation still happening in gravel ditch	Flat	150 x 1	Install Sediment Pools, Vegetate; Add to Buffer; Add plunge pools or check dams? To the ditch to slow and infiltrate, rain garden or wider vegetated buffer at the end before it reaches the lake	Low	Medium: \$1000-\$5000	Medium: Technical person should visit site & make recommendations
3-09	Kelly Rd	Ditch	Private Road*	Culvert-Unstable inlet/outlet, Culvert-Crushed Broken;	Flat	5 x 10	Remove Clog, Install Plunge Pool, Armor Inlet/Outlet, Replace; Plunge pools at inlet and outlet	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
3-10	Kelly Rd	Directly into lake	Residential	Shoreline-Inadequate Shoreline Vegetation; Soil-Bare; Surface Erosion-Sheet	Moderate	30 x 10	Add to Buffer, Reseed bare soil & thinning grass; Mulch/Erosion Control Mix	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
3-11	Kelly Rd	Minimal Vegetation	Residential	Surface Erosion-Rill	Moderate	20 x 1	Infiltration Trench @ roof dripline; Stone around edge of deck	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
3-12	Sandy Point Rd	Directly into lake	Residential	Shoreline-Unstable Access;	Moderate	60 x 3	Infiltration Steps, Stabilize Foot Path, Erosion Control Mulch; Mulch or crushed stone on path between wood markers, infiltration steps and mulch on steep steps. Mulch on common areas around the house	Medium	Low: Less than \$1000	Low: Property owner can accomplish with reference materials

Site	Location	Flow into lake via	Land Use	Problems	Slope	Size of Exposed / Eroded Area	Recommendations	Impact	Cost	Technical level
3-13	Austin Rd	Minimal Vegetation	Residential	Shoreline-Inadequate Shoreline Vegetation, Shoreline-Erosion;	Steep	15 x 10	Add to Buffer; Add plants at top of slope and on slope around stairs	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
3-14	Austin Rd	Minimal Vegetation	Residential	Shoreline-Erosion;	Steep	10 x 25	Add to Buffer; Live stakes from dogwoods growing on other areas of the slope, add buffer plantings at top of slope near the stairs	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
3-15	Culvert on Austin Rd	Stream	Private Road*	Muddy road, poor drainage, sheets of plywood laid down to help cars drive across.	Flat	45 x 10	Reshape (Crown), Add gravel; Bluestone gravel	Medium	Medium: \$1000-\$5000	Medium: Technical person should visit site & make recommendations
3-16	Austin Rd	Directly into lake	Residential	Shoreline-Erosion; Surface Erosion-Sheet	Steep	10 x 10	Drywell @ gutter downspout; Add to Buffer; Option to direct downspout to stable vegetation next to house	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
3-17	Lapointe Rd	Minimal Vegetation	Residential	Shoreline-Inadequate Shoreline Vegetation; Soil-Bare; Surface Erosion-Sheet	Steep	30 x 40	Add to Buffer; Rain Garden	Medium	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
3-18	Park Ln	Minimal Vegetation	Residential	Soil-Bare; Surface Erosion-Sheet	Flat	40 x 30	Infiltration Trench @ roof dripline; Mulch/Erosion Control Mix	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
3-19	Park Ln	Minimal Vegetation	Driveway*	Surface Erosion-Rill	Moderate	150 x 5	Pave, Install Runoff Diverters-Rubber Razor, Install Runoff Diverters-Open Top Culvert	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
3-20	Park Ln	Directly into lake	Residential	Shoreline-Erosion; Surface Erosion-Sheet	Moderate	10 x 10	Add to Buffer; Mulch/Erosion Control Mix; Plant the tier above the stone retaining wall to help infiltrate water from house and decks	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials

Site	Location	Flow into lake via	Land Use	Problems	Slope	Size of Exposed / Eroded Area	Recommendations	Impact	Cost	Technical level
3-21	Park Ln	Directly into lake	Residential	Shoreline-Unstable Access; Soil-Bare	Moderate	40 x 6	Erosion Control Mulch	Medium	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
3-22	Park Ln	Minimal Vegetation	Residential	Shoreline-Erosion; Soil-Bare	Flat	6 x 25	Add to Buffer, Establish Buffer; Mulch/Erosion Control Mix	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
3-23	Park Ln	Directly into lake	Residential	Shoreline-Inadequate Shoreline Vegetation, Shoreline-Unstable Access	Moderate	10 x 8	Define Foot Path, Erosion Control Mulch; Add to Buffer; Live staking along edge of shoreline along front of property	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
3-24	Culvert under Park Ln	Stream	Private Road*	Road Shoulder Erosion-Rill; Culvert-Unstable inlet/outlet; Surface Erosion-Rill	Moderate	100 x 5	Armor Inlet/Outlet; Install Sediment Pools; Sediment pool between stream and driveway	High	Medium: \$1000-\$5000	Medium: Technical person should visit site & make recommendations
3-25	Park Ln	Directly into lake	Residential	Surface Erosion-Sheet	Flat	30 x 2	Erosion Control Mulch	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
3-30	Park Ln	Minimal Vegetation	Residential	Lawn erosion; Shoreline-Lack of Shoreline Vegetation, Shoreline-Erosion; Soil-Bare; Surface Erosion-Sheet	Steep	40 x 20	Reseed bare soil & thinning grass, Establish Buffer; Mower at higher setting to prevent ripping	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
3-31	Park Ln	Minimal Vegetation	Residential	Walk way erosion, winter dock storage bare soil; Shoreline-Erosion, Shoreline-Lack of Shoreline Vegetation; Soil-Bare; Surface Erosion-Sheet	Steep	30 x 10	Define Foot Path, Stabilize Foot Path, Erosion Control Mulch; Add to Buffer; Shoreline plantings on steep bank	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials

Site	Location	Flow into lake via	Land Use	Problems	Slope	Size of Exposed / Eroded Area	Recommendations	Impact	Cost	Technical level
3-32	Park Ln	Minimal Vegetation	Beach Access	Rills across beach; Roof Runoff Erosion; Shoreline-Inadequate Shoreline Vegetation, Shoreline-Erosion, Shoreline-Unstable Access; Surface Erosion-Rill	Moderate	40 x 5	Infiltration Steps; Drywell @ gutter downspout; Add to Buffer	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
3-33	Park Ln	Directly into lake	Residential	Minor bank erosion to left of dock facing house; Shoreline-Unstable Access; Soil-Bare; Surface Erosion-Sheet	Steep	5 x 5 and 10 x 5 on shore	Erosion Control Mulch; Add to Buffer	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
3-34	Park Ln	Minimal Vegetation	Boat Access*	Driveway/ROW runoff access to island house; Shoreline-Erosion; Surface Erosion-Rill	Moderate	20 x 10	Install Runoff Diverters-Rubber Razor; Mulch/Erosion Control Mix; Add a thick layer of ECM on top part of access road	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
3-35	Hog Heaven Road	Minimal Vegetation	Residential	Roof Runoff Erosion; Surface Erosion-Rill, Surface Erosion-Sheet	Moderate	10 x 5	Infiltration Trench @ roof dripline	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
3-36	Hog Heaven Rd	Minimal Vegetation	Residential	Steep bank with minimum vegetation (has been cut). Roof runoff flows over bank; Roof Runoff Erosion; Shoreline-Lack of Shoreline Vegetation; Surface Erosion-Sheet	Steep	10 x 5	Infiltration Trench @ roof dripline; Add to Buffer; Stop cutting vegetation on steep bank	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials

Site	Location	Flow into lake via	Land Use	Problems	Slope	Size of Exposed / Eroded Area	Recommendations	Impact	Cost	Technical level
4-01	Boat launch Rd	Minimal Vegetation	Boat Access*	Road Shoulder Erosion-Gully; Culvert-Crushed Broken, Culvert-Clogged, Culvert-Larger Drainage Issues; Surface Erosion-Gully	Moderate	200 x 2	Assess Drainage Area, Replace, Enlarge, Install Plunge Pool; Install Turnouts, Reshape Ditch; Pave, Add gravel; Pave areas where tire ruts and crushed stone along edging instead of vegetation. Direct runoff to culvert in depression, enlarge and stabilize outlet	Medium	Medium: \$1000-\$5000	Medium: Technical person should visit site & make recommendations
4-03	Duck Pond Rd	Directly into lake	Residential	Shoreline-Lack of Shoreline Vegetation; Soil-Bare; Surface Erosion-Sheet	Moderate	40 x 4	Add to Buffer, Reseed bare soil & thinning grass; Buffer needed above riprap, likely grubs so seed might not take, could use ECM in bare areas	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
4-04	Whitehouse Rd	Directly into lake	Trail or Path	Surface Erosion-Gully	Moderate	25 x 3	Define Foot Path, Stabilize Foot Path, Erosion Control Mulch	Medium	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
4-05	Perley Rd	Directly into lake	Residential	Shoreline-Undercut; Surface Erosion-Sheet	Steep	5 x 5	Add to Buffer; Live stake shoreline where roots have been exposed near lake access to swing	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
4-06	E Point Rd	Minimal Vegetation	Private Road*	Culvert-Unstable inlet/outlet, Culvert-Larger Drainage Issues; Surface Erosion-Sheet, Surface Erosion-Rill	Steep	300 x 8	Assess Drainage Area; Install Turnouts, Install Ditch; Pave, Remove Grader/Plow Berms; Rain Garden; Nice existing depression for plunge pool at culvert inlet	Medium	High: Greater than \$5000	High: Site requires engineered design
4-07	3 Mile Pond Rd	Directly into lake	Construction Site	Soil-Bare; Surface Erosion-Gully	Steep	2 acres	Mulch, Silt Fence/EC Berms, Seed/Hay, Check Dams; Need follow-up by local code ASAP	High	High: Greater than \$5000	High: Site requires engineered design
4-08	Branstrom Rd	Minimal Vegetation	Driveway*	Road Shoulder Erosion-Gully; Surface Erosion-Gully	Steep	300 x 30	Install Turnouts, Install Ditch; Reshape (Crown); Add to Buffer; Stabilize driveway addition/turnaround	High	High: Greater than \$5000	Medium: Technical person should visit site & make recommendations

Site	Location	Flow into lake via	Land Use	Problems	Slope	Size of Exposed / Eroded Area	Recommendations	Impact	Cost	Technical level
4-09	Branstrom Rd	Directly into lake	Residential	Shoreline-Erosion; Surface Erosion-Rill	Moderate	20 x 10	Infiltration Steps, Erosion Control Mulch; Add to Buffer	Medium	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
4-10	Pine Dr	Directly into lake	Driveway*	Shoreline-Lack of Shoreline Vegetation; Road Shoulder Erosion-Sheet; Surface Erosion-Sheet	Steep	250 x 10	Install Turnouts; Infiltration Steps, Install Runoff Diverter (waterbar); Add to Buffer	Medium	Medium: \$1000-\$5000	Medium: Technical person should visit site & make recommendations
4-11	Culvert on Branstrom Rd	Stream	Private Road*	Culvert-Too short/long, Culvert-Crushed Broken, Culvert-Unstable inlet/outlet	Moderate	20 x 8	Replace, Adjust Length, Armor Inlet/Outlet	Low	Medium: \$1000-\$5000	Medium: Technical person should visit site & make recommendations
4-12	Culvert on Branstrom Rd	Stream	Private Road*	Ditch-Gully Erosion; Culvert-Unstable inlet/outlet, Culvert-Larger Drainage Issues; Surface Erosion-Gully	Moderate	50 x 5	Armor Inlet/Outlet, Assess Drainage Area; Armor with Stone, Reshape Ditch; Ditch currently contains a lot of river rocks, including around culverts	Medium	Medium: \$1000-\$5000	Medium: Technical person should visit site & make recommendations
4-13	Branstrom Rd	Stream	Private Road*	Road Shoulder Erosion-Sheet; Ditch-Rill Erosion; Culvert-Unstable inlet/outlet, Culvert-Crushed Broken, Culvert-Hanging Outlet, Culvert-Larger Drainage Issues; Surface Erosion-Rill, Surface Erosion-Sheet	Moderate	200 x 50	Armor Inlet/Outlet, Replace, Adjust Length, Assess Drainage Area, Install Culvert; Reshape Ditch, Armor with Stone; Vegetate Shoulder; Use angular stone in plunge pool	Medium	High: Greater than \$5000	High: Site requires engineered design

Site	Location	Flow into lake via	Land Use	Problems	Slope	Size of Exposed / Eroded Area	Recommendations	Impact	Cost	Technical level
4-14	Branstrom Rd	Stream	Driveway*	Road Shoulder Erosion-Sheet, Road Shoulder Erosion-Gully; Culvert-Unstable inlet/outlet, Culvert-Crushed Broken, Culvert-Larger Drainage Issues; Surface Erosion-Sheet, Surface Erosion-Gully	Steep	200 x 30	Armor Inlet/Outlet, Replace, Assess Drainage Area; Vegetate Shoulder; Silt Fence/EC Berms; Infiltration Steps, Install Runoff Diverter (waterbar)	High	High: Greater than \$5000	Medium: Technical person should visit site & make recommendations
4-15	Erosion from top of 46 Pine Dr driveway to stream crossing	Directly into lake	Driveway*	Ditch-Undersized; Surface Erosion-Sheet, Surface Erosion-Rill	Steep	300 x 20	Install Ditch, Install Turnouts; Build Up, add gravel, add recycled asphalt, Pave, Reshape (Crown), Install Runoff Diverters-Broad-based Dip, Install Runoff Diverters-Open Top Culvert, Install Runoff Diverters-Rubber Razor, Install Runoff Diverters-Waterbar	Medium	Medium: \$1000-\$5000	Medium: Technical person should visit site & make recommendations
4-16	37 Williams Rd	Directly into lake	Residential	Other-Septic; Shoreline-Lack of Shoreline Vegetation; Surface Erosion-Sheet	Steep	200 x 200	Establish Buffer; Sewer behind house with intermittent stream flowing over, next to lake	Medium	Medium: \$1000-\$5000	Medium: Technical person should visit site & make recommendations
4-17	31 Williams Rd	Minimal Vegetation	Residential	Roof Runoff Erosion; Shoreline-Inadequate Shoreline Vegetation; Soil-Bare; Surface Erosion-Rill	Steep	150 x 7	Add gravel; Erosion Control Mulch; Infiltration Trench @ roof dripline; Add to Buffer; New well recently installed on property	Medium	Medium: \$1000-\$5000	Medium: Technical person should visit site & make recommendations
5-01	42 Duck Pond Rd	Directly into lake	Residential	Shoreline-Inadequate Shoreline Vegetation, Shoreline-Erosion; Surface Erosion-Sheet	Steep	3 x 5 and 10 x 20	No Raking, Add to Buffer; Mulch/Erosion Control Mix; Accumulated yard waste needs to be brought away from lake	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
5-02	Monument Rd, house on left, shingled roof 20 Monument Rd	Directly into lake	Residential	Shoreline-Lack of Shoreline Vegetation, Shoreline-Inadequate Shoreline Vegetation, Shoreline-Erosion; Surface Erosion-Sheet	Steep	20 x 5	Establish Buffer, No Raking; Needs help vegetating a shady steep bank with erosion	Medium	Low: Less than \$1000	Low: Property owner can accomplish with reference materials

Site	Location	Flow into lake via	Land Use	Problems	Slope	Size of Exposed / Eroded Area	Recommendations	Impact	Cost	Technical level
5-03	37 75th Fire Rd	Directly into lake	Driveway*	Shoreline-Inadequate Shoreline Vegetation; Soil-Bare; Surface Erosion-Sheet	Moderate	6 ft along driveway	Add gravel, Install Runoff Diverters-Rubber Razor; Add to Buffer; Install Runoff Diverter (waterbar)	Medium	Medium: \$1000-\$5000	Medium: Technical person should visit site & make recommendations
5-04	6 West Washington Boulevard	Directly into lake	Residential	Other-Septic; Shoreline-Inadequate Shoreline Vegetation; Soil-Bare; Surface Erosion-Sheet	Moderate	10 x 7 and 4 x 5	Add to Buffer; Mulch/Erosion Control Mix	Medium	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
5-05	Towards the end of Memory Ln. Stream crossing.	Stream	Private Road*	Culvert-Diameter too small, Culvert-Hanging Outlet; Surface Erosion-Sheet	Flat	12 x 6	Enlarge; Build Up, Add gravel, Reshape (Crown); Nearby 4 wheeler trail. Could also be getting torn up due to 4 wheeler use.	Medium	Medium: \$1000-\$5000	Medium: Technical person should visit site & make recommendations
6-01	Rte. 3, across from 258	Minimal Vegetation	Construction Site	Soil-Bare;	Flat	1 acre	Mulch, Silt Fence/EC Berms	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
6-02	Prude Rock Rd	Stream	Private Road*	Road Shoulder Erosion-Gully; Culvert-Diameter too small; Surface Erosion-Rill	Flat	20 x 20	Armor Inlet/Outlet, Replace; Build Up	Medium	Medium: \$1000-\$5000	Medium: Technical person should visit site & make recommendations
6-03	Park Ln crossing of stream in wetland area	Stream	Private Road*	Berm; Surface Erosion-Gully	Flat	300 ft down the road	Install Culvert; Build Up	Medium	High: Greater than \$5000	High: Site requires engineered design
6-04	169 Park Ln	Directly into lake	Residential	Shoreline-Erosion; Surface Erosion-Sheet	Steep	7 x 32	Add to Buffer; Mulch/Erosion Control Mix, Install Runoff Diverter (waterbar)	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
6-05	163 Park Ln	Directly into lake	Residential	Surface Erosion-Sheet	Steep	75 x 50	No Raking, Add to Buffer; Install Runoff Diverter (waterbar), Mulch/Erosion Control Mix	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials

Site	Location	Flow into lake via	Land Use	Problems	Slope	Size of Exposed / Eroded Area	Recommendations	Impact	Cost	Technical level
6-06	149 Park Ln	Directly into lake	Residential	Shoreline-Inadequate Shoreline Vegetation; Surface Erosion-Sheet	Steep	50 x 50	Add to Buffer, No Raking; Mulch/Erosion Control Mix	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
6-07	147 Park Ln	Directly into lake	Residential	Shoreline-Inadequate Shoreline Vegetation, Shoreline-Erosion; Surface Erosion-Rill	Moderate	5 x 10	Add to Buffer; Mulch/Erosion Control Mix, Install Runoff Diverter (waterbar)	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
6-08	131 Park Ln	Minimal Vegetation	Residential	Soil-Bare; Surface Erosion-Sheet	Steep	80 x 100	Mulch; Add to Buffer	Medium	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
6-09	125 Park Ln	Minimal Vegetation	Driveway*	Ditch-Gully Erosion; Surface Erosion-Rill	Moderate	50 x 60	Install Check Dams, Reshape Ditch, Install Ditch; Install Runoff Diverters-Broad-based Dip, Install Runoff Diverters-Waterbar, Build Up, Reshape (Crown); Mulch/Erosion Control Mix	Medium	Medium: \$1000-\$5000	Low: Property owner can accomplish with reference materials
6-99	Sunset Ln	Directly into lake	Residential	Soil-Bare; Surface Erosion-Sheet	Moderate	15 x 4	Establish Buffer; Mulch/Erosion Control Mix	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
7-01	17 Sunset Ln	Ditch	Private Road*	Culvert-Unstable inlet/outlet, Culvert-Clogged	Moderate	3 x 2	Armor Inlet/Outlet, Remove Clog	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
7-02	21 Sunset Ln	Directly into lake	Residential	Soil-Bare; Surface Erosion-Sheet	Moderate	15 x 15	Stabilize Foot Path; Establish Buffer	Medium	Low: Less than \$1000	Low: Property owner can accomplish with reference materials

Site	Location	Flow into lake via	Land Use	Problems	Slope	Size of Exposed / Eroded Area	Recommendations	Impact	Cost	Technical level
7-03	24 Rocky Rd	Directly into lake	Residential	Soil-Bare; Surface Erosion-Sheet	Moderate	10 x 5	Stabilize Foot Path, Infiltration Steps, Erosion Control Mulch	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
7-04	18 Rocky Rd	Directly into lake	Residential	Shoreline-Inadequate Shoreline Vegetation; Soil-Bare, Soil-Uncovered Pile; Surface Erosion-Rill	Moderate	30 x 6	Establish Buffer, Add to Buffer	Medium	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
7-05	Rocky Rd Utility Pole 41	Stream	Private Road*	Active construction nearby; Culvert-Clogged, Culvert-Unstable inlet/outlet; Surface Erosion-Sheet	Moderate	10 x 4	Remove Clog, Armor Inlet/Outlet; Vegetate	Medium	High: Greater than \$5000	High: Site requires engineered design
7-06	61 Sunrise Dr	Directly into lake	Residential	Channelized erosion points off house; Soil-Bare, Soil-Uncovered Pile; Surface Erosion-Gully	Steep	50 x 4	Vegetate; Establish Buffer, Add to Buffer; Install Runoff Diverter (waterbar), Mulch/Erosion Control Mix, Infiltration Trench	High	High: Greater than \$5000	High: Site requires engineered design
7-07	61 Sunrise Dr	Directly into lake	Residential	Outlet of a riprap ditch into a buffer but is carving through; Soil-Bare, Soil-Uncovered Pile; Surface Erosion-Gully	Steep	40 x 3	Establish Buffer; Install Runoff Diverter (waterbar); Potential level spreader at base of ditch	High	High: Greater than \$5000	High: Site requires engineered design
7-08	28 Sunrise Dr	Ditch	Residential	Soil-Bare; Surface Erosion-Gully	Flat	15 x 2	Remove Grader/Plow Berms	Medium	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
7-10	167 Arnold Rd	Stream	Private Road*	Culvert-Hanging Outlet, Culvert-Unstable inlet/outlet	Moderate	12 x 5	Armor Inlet/Outlet; Vegetate; Vegetate Shoulder	Medium	Medium: \$1000-\$5000	Medium: Technical person should visit site & make recommendations
7-11	166 Riga Rd	Directly into lake	Residential	Soil-Bare;	Flat	50 x 12	Establish Buffer; Mulch/Erosion Control Mix	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials

Site	Location	Flow into lake via	Land Use	Problems	Slope	Size of Exposed / Eroded Area	Recommendations	Impact	Cost	Technical level
7-12	167 Riga Rd	Directly into lake	Residential	Shoreline-Lack of Shoreline Vegetation; Soil-Bare; Surface Erosion-Sheet	Flat	10 x 2	Define Foot Path; Establish Buffer; Mulch/Erosion Control Mix	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
7-13	Entirety of Riga Rd	Directly into lake	Private Road*	Road in poor condition; Berm; Surface Erosion-Gully	Steep	1 mile x 12 ft road	Remove Grader/Plow Berms, Build Up, Add gravel, Add recycled asphalt, Pave, Reshape (Crown), Vegetate Shoulder, Install Catch Basin, Install Runoff Diverters-Broad-based Dip, Install Detention Basin, Install Runoff Diverters-Open Top Culvert, Install Runoff Diverters-Rubber Razor, Install Runoff Diverters-Waterbar	High	High: Greater than \$5000	High: Site requires engineered design
8-01	Culvert on driveway for 282 Vassalboro Rd (red mailbox)	Stream	Driveway*	Road Shoulder Erosion-Sheet; Culvert-Unstable inlet/outlet, Culvert-Too short/long; Surface Erosion-Sheet	Steep	25 x 5 & 12 x 3	just Length, Armor Inlet/Outlet	Low	Low: Less than \$1000	Medium: Technical person should visit site & make recommendations
8-02	134 70th Fire Rd	Minimal Vegetation	Construction Site	Soil-Bare; Surface Erosion-Rill	Moderate	10 x 30 & 6 x 20	Mulch, Seed/Hay; Mulch berm or silt fence during construction	Medium	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
8-03	Lot with Campers and shed	Directly into lake	Residential	Shoreline-Unstable Access; Soil-Bare; Surface Erosion-Rill	Moderate	3 x 40 & 6 x 20	Infiltration Steps, Erosion Control Mulch; Retrofit pathway with infiltration steps, mulch other parts of path and common areas	Medium	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
8-04	Rd near Taber driveway	Minimal Vegetation	Private Road*	Road Shoulder Erosion-Rill; Surface Erosion-Rill	Flat	10 x 200	Install Culvert, Replace; Armor with Stone; Build Up, Reshape (Crown); Rock sandwich?	Medium	High: Greater than \$5000	Medium: Technical person should visit site & make recommendations
8-05	207 70th Fire Rd	Directly into lake	Residential	Surface Erosion-Rill	Flat	6 x 6	Add to Buffer; Replace sandy beach with mulch or gravel, or define. A footpath and re-vegetate around it	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials

Site	Location	Flow into lake via	Land Use	Problems	Slope	Size of Exposed / Eroded Area	Recommendations	Impact	Cost	Technical level
8-06-1	Recreational lot on 70th Fire Rd	Directly into lake	Residential	Soil-Bare; Surface Erosion-Sheet	Moderate	30 x 50	Define Foot Path, Infiltration Steps; Mulch/Erosion Control Mix	Low	Medium: \$1000-\$5000	Medium: Technical person should visit site & make recommendations
8-06-2	Empty lot on 70th Fire Rd	Directly into lake	Residential	Erosion from gravel road is getting into the lake.	Moderate	20 x 4	Install Plunge Pool; Add settling basin at outlet of tiny culvert, looks like it gets heavy flows during rain	Low	Medium: \$1000-\$5000	Medium: Technical person should visit site & make recommendations
8-07	shoreline access for 232 70th Fire Rd	Directly into lake	Residential	Shoreline-Erosion, Shoreline-Unstable Access; Surface Erosion-Sheet	Steep	10 x 6	Add to Buffer; Install Runoff Diverter (waterbar), Mulch/Erosion Control Mix; Mulch berm at bottom of slope?	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
9-01	57 Mary Santry Rd	Minimal Vegetation	Driveway*	Shoreline-Lack of Shoreline Vegetation; Surface Erosion-Sheet	Moderate	15 x 30	Mulch/Erosion Control Mix; Define parking area, reseed and much the area below	Low	Medium: \$1000-\$5000	Medium: Technical person should visit site & make recommendations
9-02	57 Mary Santry Rd	Stream	Driveway*	Surface Erosion-Gully	Moderate	8 x 45	Install Runoff Diverters-Rubber Razor, Install Runoff Diverters-Waterbar, Install Runoff Diverters-Broad-based Dip, Install Runoff Diverters-Open Top Culvert; Install Runoff Diverter (waterbar)	Medium	Medium: \$1000-\$5000	Medium: Technical person should visit site & make recommendations
9-03	65 Cyr Rd	Minimal Vegetation	Residential	Soil-Bare;	Moderate	30 x 30	Define Foot Path; Establish Buffer, No Raking, Reseed bare soil & thinning grass	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
9-04	63 Cyr	Directly into lake	Residential	Shoreline-Lack of Shoreline Vegetation; Soil-Bare; Surface Erosion-Sheet	Flat	6 x 10	Define Foot Path; Establish Buffer, Reseed bare soil & thinning grass; Mulch/Erosion Control Mix	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
9-05	11 Jackson Rd	Minimal Vegetation	Residential	Shoreline-Inadequate Shoreline Vegetation; Soil-Bare; Surface Erosion-Sheet	Steep	20 x 10	Add to Buffer, No Raking, Reseed bare soil & thinning grass; Mulch/Erosion Control Mix	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials

Site	Location	Flow into lake via	Land Use	Problems	Slope	Size of Exposed / Eroded Area	Recommendations	Impact	Cost	Technical level
9-06	12 Jackson Rd	Minimal Vegetation	Driveway*	Surface Erosion-Sheet	Moderate	8 x 40	Install Runoff Diverters-Rubber Razor; Mulch; Add to Buffer, Reseed bare soil & thinning grass; Mulch/Erosion Control Mix	Low	Medium: \$1000-\$5000	Medium: Technical person should visit site & make recommendations
9-07	11 Jackson Rd	Minimal Vegetation	Private Road*	Surface Erosion-Rill	Moderate	8 x 25	Install Runoff Diverters-Rubber Razor	Medium	Medium: \$1000-\$5000	Medium: Technical person should visit site & make recommendations
9-08	512 Pierces Point Rd	Minimal Vegetation	Residential	Surface Erosion-Sheet	Moderate	8 x 3	Install Runoff Diverter (waterbar); No Raking; Great property, just suggest using a waterbar to slow water coming off the path and eroding the shoreline. Path is well covered, just collecting water.	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
9-09	45 Allen Rd	Directly into lake	Residential	Soil-Bare; Surface Erosion-Sheet	Moderate	15 x 20	Define Foot Path, Erosion Control Mulch; Add to Buffer, No Raking; Mulch/Erosion Control Mix; Large bare area. Wants to add in a retention wall, would work well with plants above it.	Low	Low: Less than \$1000	Low: Property owner can accomplish with reference materials
9-10	4 Harmon Rd	Directly into lake	Residential	Shoreline-Undercut, Shoreline-Lack of Shoreline Vegetation; Surface Erosion-Sheet	Moderate	6 x 12	Drywell @ gutter downspout; Install Runoff Diverter (waterbar); Beach access on residential property eroding. Maybe waves or ice, but reducing runoff above would be good.	Medium	Medium: \$1000-\$5000	Medium: Technical person should visit site & make recommendations
9-11	8 Allen Rd	Minimal Vegetation	Residential	Soil-Bare; Surface Erosion-Sheet	Steep	5 x 5 and 5 x 10 ft bank	Infiltration Steps; Add to Buffer; Rain Garden; Steep bank with vegetation. Reduce water flowing to steep bank. Could add erosion control blanket or coir logs to help plants grow.	Low	Medium: \$1000-\$5000	Low: Property owner can accomplish with reference materials

Site	Location	Flow into lake via	Land Use	Problems	Slope	Size of Exposed / Eroded Area	Recommendations	Impact	Cost	Technical level
9-12	226 Pierces Point Rd	Minimal Vegetation	Residential	Soil-Bare; Surface Erosion-Sheet	Steep	5 x 15	Infiltration Steps, Install Runoff Diverter (waterbar), Erosion Control Mulch; Add to Buffer; Install Runoff Diverter (waterbar); Reduce water going to the steep bank. Divert more water to the woods on the right.	Low	Medium: \$1000-\$5000	Medium: Technical person should visit site & make recommendations