WATERSHED SURVEY REPORT

Phillips Lake









SEPTEMBER 2026

In partnership with:

PHILLIPS LAKE ASSOCIATION

DEPARTMENT OF ENVIRONMENTAL PROTECTION · STATE OF MAINE ·

ecological instincts
Environmental Consulting

2026 PHILLIPS LAKE WATERSHED SURVEY
WATERSHED SURVEY REPORT

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ACKNOWLEDGEMENTS

The following people and organizations were instrumental in the Phillips Lake Watershed Survey, and deserve special recognition for their efforts:

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Carl Cronin	Bob Fraser	Alex Treworgy
Craig Curtis	Claus Hausman	Kristin Wedin
Sande Curtis	Jackie Hewett	Tim Whitney
Janis Davis	Bonnie Heyer	Kitti Wilkin

Funding: This survey was funded in part by Maine DEP through the Clean Water State Revolving Fund, and through Lake Stewards of Maine in partnership with Maine Lakes through a Watershed Survey Grant. Additional financial support was provided by the Phillips Lake Association (PLA), and the Lucerne In Maine Village Corporation (LIMVC).

Project Partners: Lucerne in Maine Village Corporation (LIMVC), Phillips Lake Association (PLA), Hancock County Soil and Water Conservation District (HCSWCD), and the Maine Department of Environmental Protection. Project management was provided by Ecological Instincts.

Report Prepared By: Ecological Instincts

Cover Photos: Phillips Lake (top, Ecological Instincts), watershed survey photos (bottom)

COMMONLY USED ACRONYMS

The following are used throughout this document:

BMP	Best Management Practice
DO	Dissolved Oxygen
LIMVC	Lucerne In Maine Village Corporation
Maine DEP	Maine Department of Environmental Protection
NPS	Nonpoint Source (Pollution)
PLA	Phillips Lake Association
ppb	Parts Per Billion
SDT	Secchi Disk Transparency
US EPA	United States Environmental Protection Agency
WBPP	Watershed-Based Management Plan

INTRODUCTION & BACKGROUND INFORMATION

PHILLIPS LAKE WATERSHED

Phillips Lake (aka Lucerne Lake) is a 827-acre Great Pond located in the Town of Dedham in Hancock County, Maine. The Phillips Lake direct watershed is also located entirely within the Town of Dedham, and drains 6.7 square miles of land. A majority of the watershed also falls within the jurisdiction of the Lucerne-In-Maine Village Corporation (LIMVC), a quasi-municipality within the Town of Dedham. The direct **watershed** refers to the area of land that drains directly into a waterbody through many different means (e.g., streams, ditches, and groundwater), and does not include upstream lakes and ponds, which have their own direct watersheds.

Phillips Lake has a maximum depth of 105 ft and a mean depth of 40 ft. The indirect watershed of Phillips Lake includes five smaller ponds that flow into the lake including Mud Pond and Second Pond to the east, Moulton and Hurd Pond to the west, and Michell Pond to the south (Figure 1). Phillips Lake has a low flushing rate of 0.52 flushes per year. Lakes with low flushing rates can be slow to respond to changes in the watershed and retain nutrients washed into the lake for a longer period. Water flows out of Phillips Lake through an outlet at its northern end, and into Mill Stream, Long Pond, and Alamoosook Lake before flowing into the Narramissic River which flows to the Orland River, and eventually to the Atlantic Ocean.

WATERSHED
The area of land around a lake that drains (or sheds) its water into the lake through streams, ditches, as overland flow, or through groundwater.

The shoreline of Phillips Lake is highly developed with seasonal camps, rental properties, and year-round homes. Shoreline development also includes Camp Capella and the Lucerne Beach Club along the eastern shoreline. A network of paved and gravel roads surround the shoreline, providing access to shoreline development. An old railroad track runs along much of the eastern shoreline, oftentimes running through residential areas. The watershed also contains some commercial development, including the Lucerne Inn and Lucerne Golf Course, which are located in the eastern watershed. Route 1A runs north to south through the length of the watershed. Public access is available from a privately owned boat ramp off Pearl Point Rd. Phillips Lake provides significant economic benefits to the local communities through consumer spending and property taxes.

Because water from upstream lakes, streams, and stormwater runoff moves though a watershed in a variety of different ways, it is important to survey the entire watershed in order to document erosion on all land-use activities that may currently be affecting water quality, or that have the potential to affect water quality in the future.

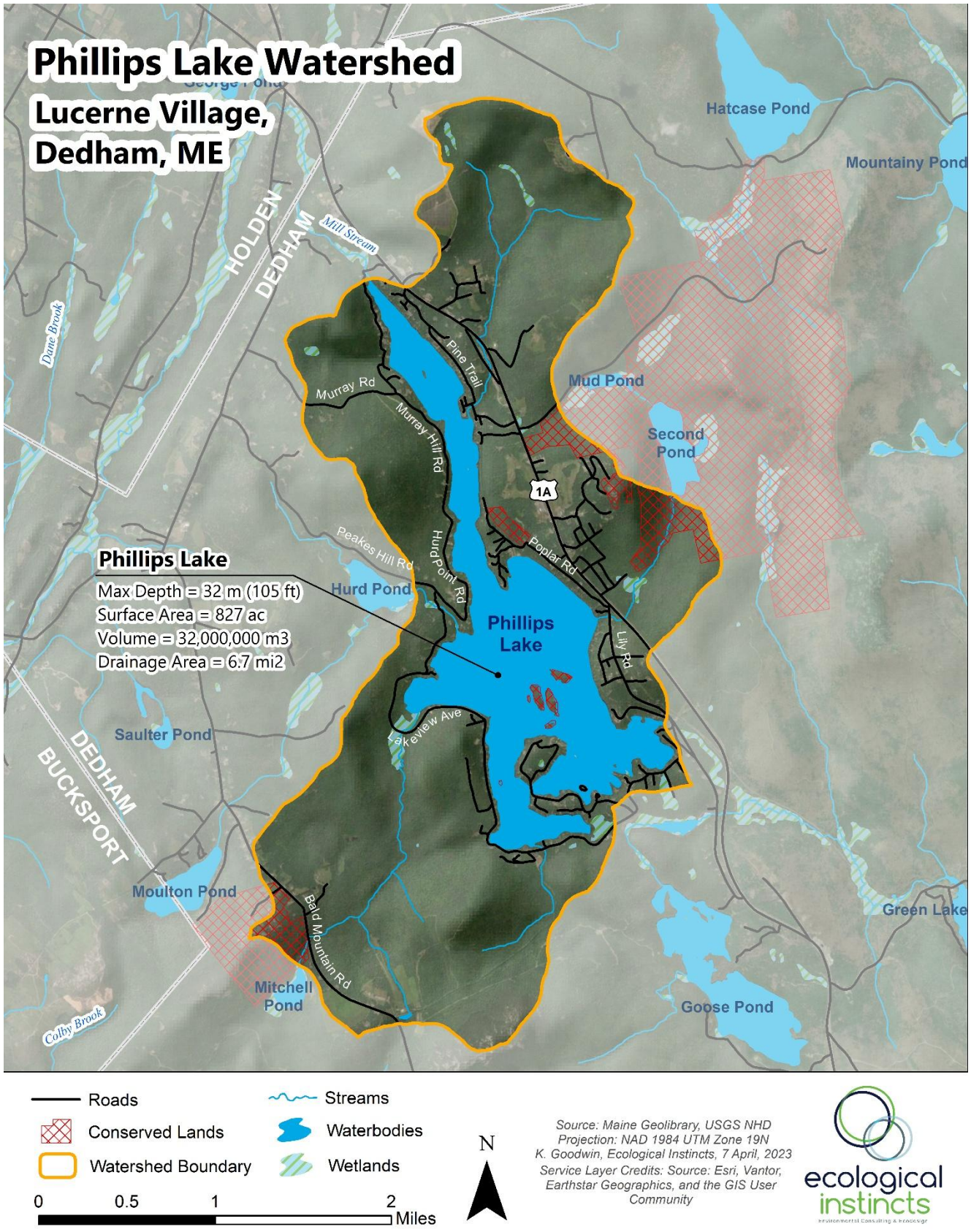


Figure 1. Phillips Lake watershed map (*Wetlands shown on this and following maps come from the US Fish & Wildlife Service's National Wetlands Inventory and may not include all wetlands in the watershed*).

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 in Phillips Lake, 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.

Phillips Lake has many unpaved town roads around the shoreline and an inactive railroad that stretches along the east side of the lake from the southern end of the lake to the northern outlet. Runoff from existing development, the inactive railroad and roads, as well as any new development and/or seasonal conversions needs to be managed properly to prevent delivery of pollutants into the lake, 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 and other aquatic plants. Phosphorus is found in soils, septic waste, animal waste and fertilizers.



An algal bloom in Abrams Pond, Eastbrook, Maine. (Source: APA)

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.

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.

Water quality data has been collected in Phillips Lake since 1974. The data show that Phillips Lake has low levels of biological productivity, meaning that algae growth in the water column is minimal compared to other lakes in Maine. Water clarity is higher than average (as measured by Secchi disk transparency (SDT), where a disk is lowered into the water until it is no longer visible), and chlorophyll-a levels in the lake are low, indicating low levels of algae growth overall. Phosphorus levels are also low, which likely limits how much algae can grow in the lake since algae require phosphorus in order to grow. Phillips Lake has an average phosphorus concentration of 5 ppb[1] over the historical sampling period and an average water clarity of 8.9 m for historical SDT.

More information about water quality, historical trends, habitat condition, and more for Phillips Lake is available through Lakes of Maine and Maine DEP on the Lake Scorecard[2] and Lake Water Quality Report[3] pages.

WHY PROTECT OUR LAKES FROM POLLUTED RUNOFF?

- Reducing phosphorus inputs from developed land is important to help maintain the excellent water quality in Phillips Lake.
- The nutrients found in polluted runoff can cause increased algal growth, which can have negative impacts on water quality, including decreasing clarity and increased decomposition at the bottom of the lake which uses up the oxygen that is available in deep areas, thereby reducing fish habitat.
- Recent oxygen data shows that Phillips Lake is susceptible to low levels of dissolved oxygen (DO) at the very bottom of the lake (below 30 m). Though the current area that is experiencing low DO is quite small, increased algal growth could cause more DO loss in shallower areas in the future. As 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.
- Phillips Lake supports 23 fish species and provides habitat for warmwater and coldwater fish. Three species have been introduced to the lake: brown trout, largemouth bass and smallmouth bass. Other native species include alewife, American eel, brook trout, lake trout and landlocked salmon.

[1] Based on epilimnetic core data, which involves taking a mixed sample from the warm upper layer of the lake.
[2] Maine DEP Lake Scorecard for Phillips Lake. https://lakesofmaine.org/data/2025-scorecards/html/SC_4300.html#Phillips_Lake
[3] Lakes of Maine, Water Quality Report for Phillips Lake Station 1. https://lakesofmaine.org/data/2025_Lake_Reports/MaineLakeReport_4300_1.html

- Under certain conditions (low levels of dissolved oxygen, lake turnover), phosphorus that has settled out into the lake sediment can be released into the water column and contribute to excessive algae growth. Phillips lake's sediments do have the potential to release phosphorus during periods of low oxygen based on sediment chemistry testing completed by Maine DEP.[4]
- 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. Phillips Lake is categorized by DEP as being a medium risk to introductions of invasive aquatic plants, although there are no known invasives present.[5]
- A 2024 study by the University of Maine estimated the total net economic value of Maine Lakes at $14.1 billion. The study also re-confirmed the connection between lake water quality and shoreline property values, where every one-foot increase in water clarity correlates with a 1.1% increase in property values.[6]

SURVEY PURPOSE & METHODS

PURPOSE OF THE WATERSHED SURVEY

A watershed survey was conducted for Phillips Lake to update the previous watershed survey that was conducted in 2009, and to provide a basis for watershed planning over the next decade.

The goals of the watershed survey were to:

- Identify and prioritize existing sources of polluted runoff, particularly soil erosion and stormwater runoff, in the Phillips Lake watershed.
- Raise public awareness about the connection between land use and water quality, and the impact of soil erosion on water quality.
- 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 Phillips Lake Association (PLA) can continue to work cooperatively with property owners, road associations, the Town of Dedham,

[4] Maine DEP Lake Scorecard for Phillips Lake. https://lakesofmaine.org/data/2025-scorecards/html/SC_4300.html#Phillips_Lake

[5] 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

[6] Daigneault, et al. Valuing the Economic Benefits of Maine's Great Ponds In the 21st Century Executive Summary: https://www.lakes.me/valuing-lakes

and the Village of Lucerne to protect and improve water quality.

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 PLA, 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 outlined in this report. Everyone in the Phillips Lake watershed has a stake in helping protect the water quality.

SURVEY METHODS

An online volunteer training session was held on May 14, 2026 followed by the watershed survey on May 17-18. An experienced technical leader from Ecological Instincts, Hancock County Soil and Water Conservation District, and the Maine DEP and 24 volunteers (often a local resident of the area) teamed up to locate NPS sites across 13 survey sectors (Figure 2). Prior to the survey, 570 survey notification letters with informational handouts were sent to property owners within the Phillips Lake watershed. Fifty-two properties in the watershed were not included in the survey at the property owner's request.

Sources of NPS pollution were identified within each sector and documented using Survey123, an online data collection app, on smartphones and tablets (Attachment 1). 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 for all NPS sites, rough estimates were made for the cost of labor and materials for improving the sites, and 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.



Volunteers gathered at the Dedham town office prior to heading out for day one of the watershed survey.

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.

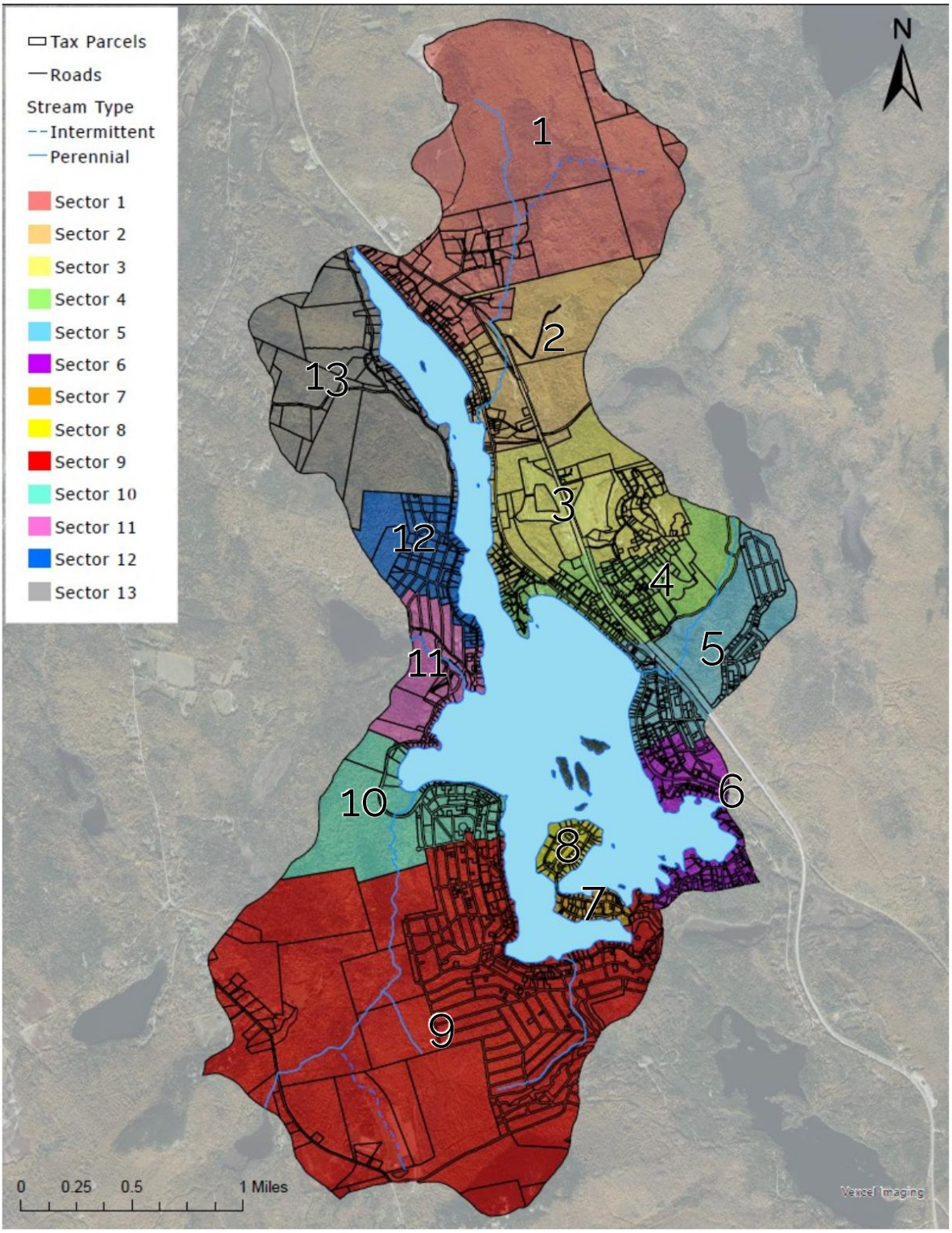


Figure 2. Map of survey sectors for the 2026 Phillips Lake Watershed Survey (Source: Maine DEP).

WATERSHED SURVEY RESULTS

SUMMARY OF SURVEY FINDINGS

Volunteers and technical staff identified **208 NPS sites across the Phillips Lake watershed** that are currently negatively affecting or have the potential to negatively affect the water quality of Phillips Lake (Attachment 2). Geographically, the majority of NPS sites in the watershed are located near the shoreline, with a handful of sites associated with roads and stream crossings (Figure 3). Sites were documented across thirteen sectors and nine different land-use types (Figure 4).[7] Residential properties had the highest number of documented sites by a wide margin, followed by town roads. A complete list of NPS sites identified in the Phillips Lake watershed is provided in Attachment 2.

- **Residential Development:** Residential sites made up the majority of NPS sites in the watershed. In rural lake watersheds, residential development is typically located along the shoreline serviced by gravel roads. For the most part, residential sites were low impact (57 of the 122 residential sites). The ten high impact residential sites should be considered high priority for lake restoration. Programs such as LakeSmart 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 Phillips Lake watershed are largely located on town roads (45 out of 50 road sites). The remaining road sites were located on private roads (5 sites). There are an additional 14 sites on driveways. Together with driveways, there are 64 road-related sites. There were 19 sites on Lakeview Ave, a town road that hugs a large stretch of the southwestern shoreline. Sites were also identified on 15 other town roads and three private roads.

- **Railroads:** The inactive railroad that travels along the eastern shoreline of Phillips Lake poses an additional source of erosion, and thereby an additional threat to water quality in the lake. Fourteen sites are related to the railroad. Many of these sites (9 sites) are located on residential properties adjacent to the railroad and experiencing erosion from the railroad. In many cases, the railroad must be crossed in order to access the shoreline from camps, which can cause erosion around pathways and access areas.

- **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 Phillips Lake.

[7] Residential homes and driveways were documented separately in the field.

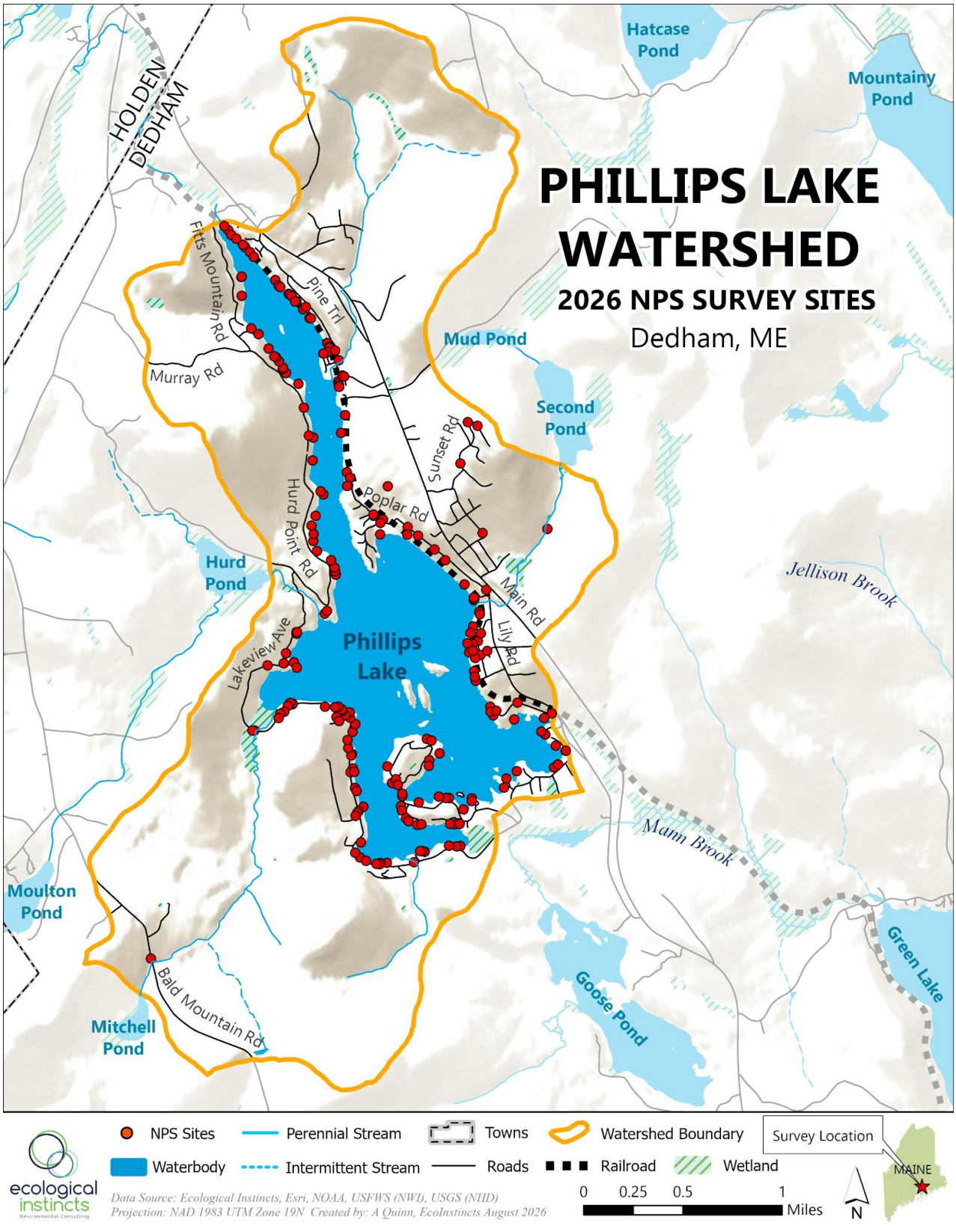


Figure 3. Map of NPS sites in the Phillips Lake watershed[8]

[8] Terrain on this map and in Figure 6 is shown using hillshade, a mapping tool which simulates shading that would fall on terrain from a hypothetical light source. In this case the light source is coming from the northeast and darker areas represent southeast facing slopes.

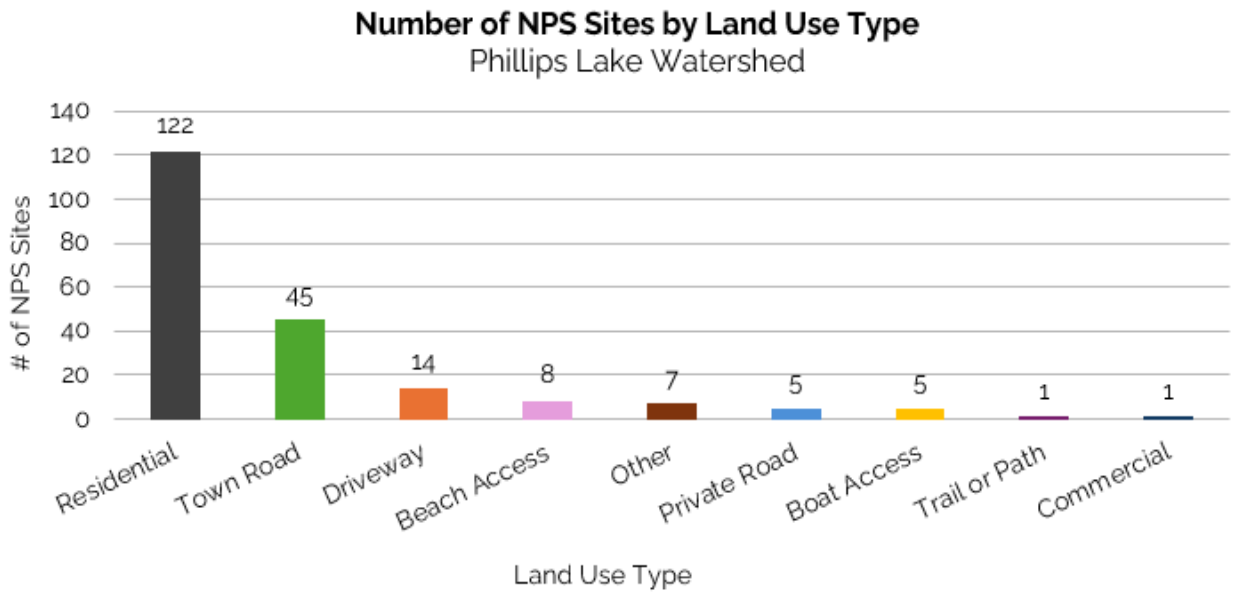


Figure 4. NPS sites in the Phillips Lake watershed by land-use type.

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, amount of eroding soil, and buffer size were also considered. A closer look at the estimated impact of these sites shows that just 8% of sites were ranked high impact (17 sites), whereas the greatest number of sites were ranked medium impact (97 sites, 47%) (Figure 5, Figure 6). Of the 17 high impact sites, 10 were residential, five were located on town roads, one was on a driveway and one was a boat access site. Residential sites were the most common land-use type in all three impact categories (Table 1). With the highest number of sites and the most high impact sites, residential properties should be prioritized for remediation, especially those ranked high or medium impact.

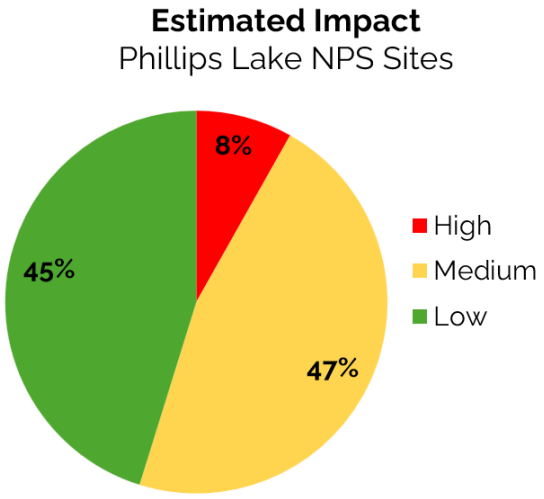


Figure 5. Estimated impact of NPS sites in the Phillips Lake watershed.



View of Phillips Lake during the 2026 Watershed Survey.

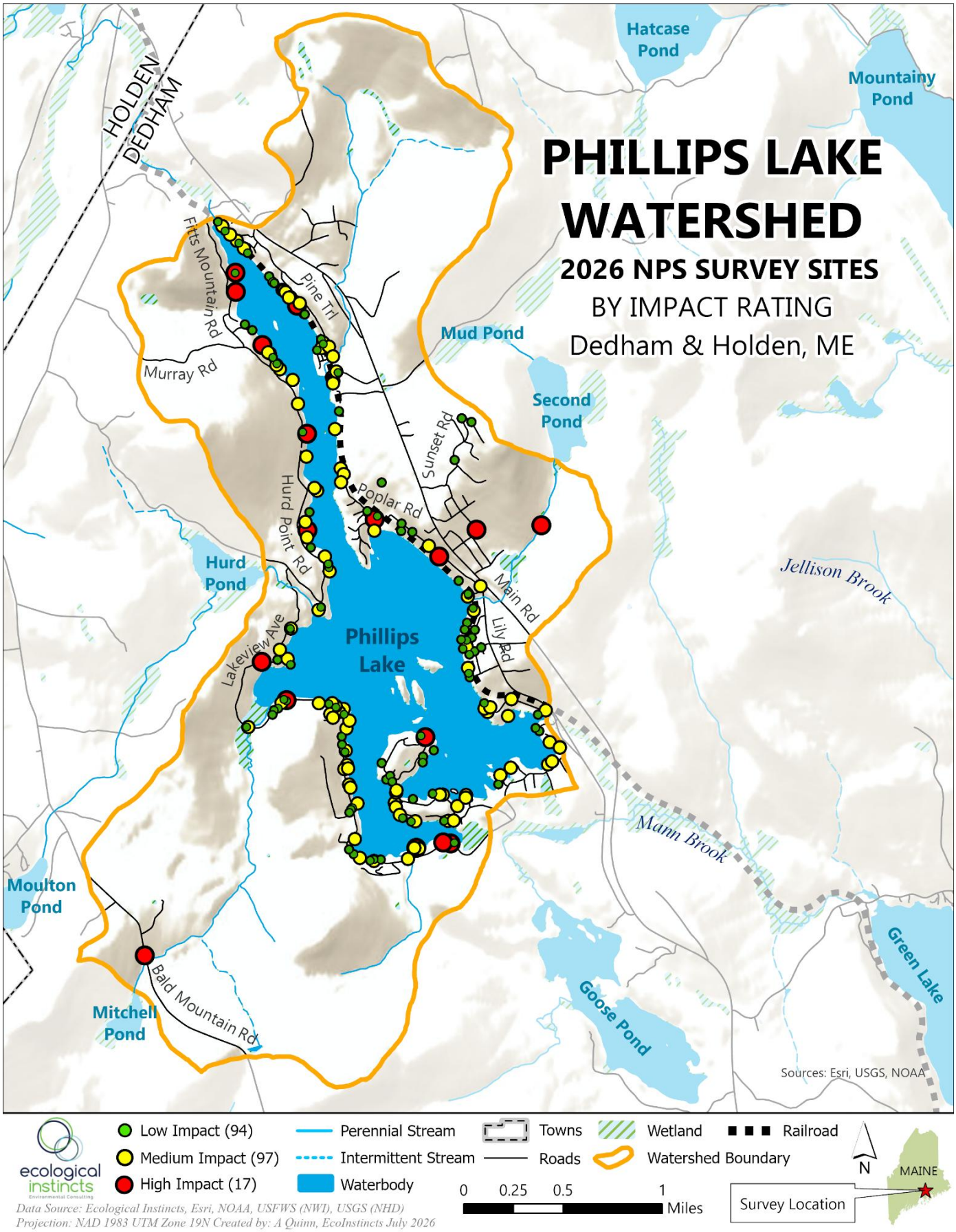


Figure 6. Map of NPS sites in the Phillips Lake watershed by impact ranked low to high.

Table 1. Summary of NPS sites in the Phillips Lake watershed by land use and impact.

Land Use	High	Medium	Low	Total	% Total
Residential	10	55	57	**122**	**59%**
Town Road	5	15	25	**45**	**22%**
Driveway	1	11	2	**14**	**7%**
Beach Access		7	1	**8**	**4%**
Other		1	6	**7**	**3%**
Private Road		3	2	**5**	**2%**
Boat Access	1	3	1	**5**	**2%**
Trail or Path		1		**1**	**<1%**
Commercial		1		**1**	**<1%**
Grand Total	**17**	**97**	**94**	**208**	**100%**

Sites by Sector

Sector 9 on the southwest shore of Phillips Lake (Figure 2), had the highest number of NPS sites with 29 sites (Figure 7). Most of these sites were medium impact residential sites. There were four high impact sites identified in Sector 9, two of which were on residential properties, one on a town road (Lakeview Ave), and one driveway site. Sector 9 was also the largest sector and included a large number of shoreline parcels off Lakeview Ave along the southwest corner of the lake, along with a portion of the outer watershed that included a stream crossing on Bald Mountain Road. Sector 10, to the north of Sector 9, had the second highest number of sites at 24 sites. Most sites in this area were low impact town road sites on Lakeview Ave. The greatest number of high impact sites were located in Sector 9 and Sector 13 (northwest shore including Fitts Mountain Rd and Murray Rd), which each had four high impact sites.

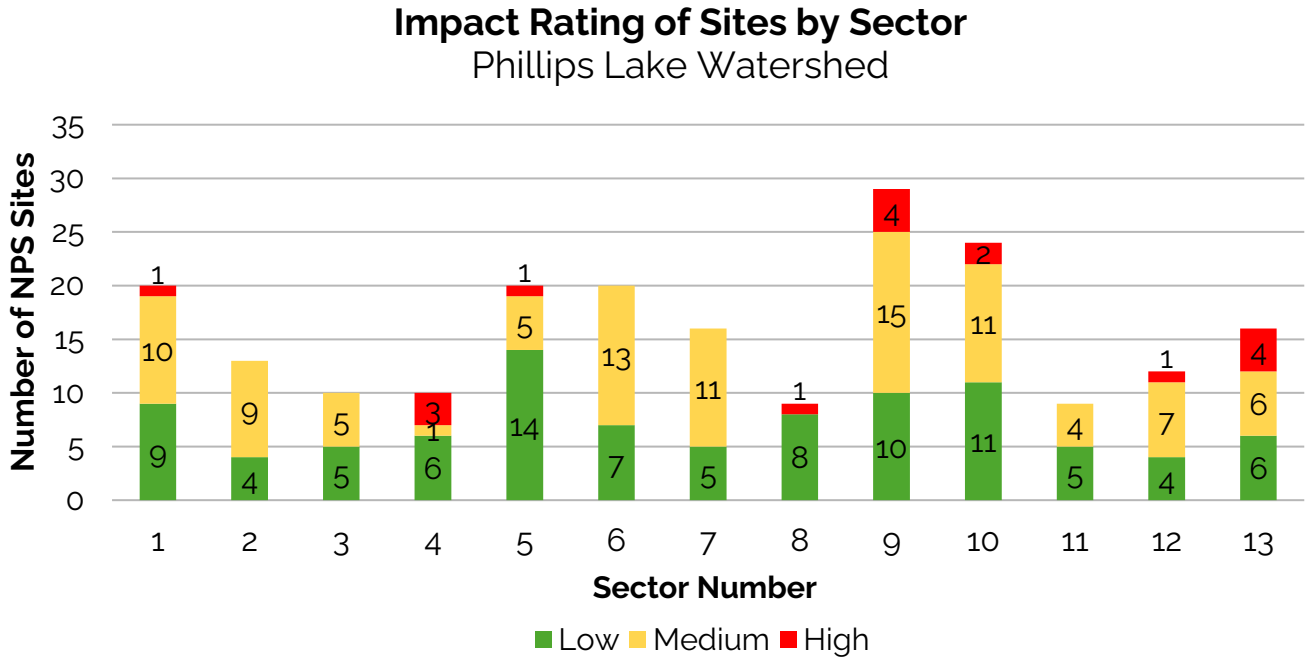


Figure 7. Impact rating of NPS sites in the Phillips Lake watershed by sector.

Sites by Land Use

Residential: There were 122 residential sites identified in the Phillips Lake watershed, accounting for 59% of the 208 NPS sites identified. Only 10 of the 122 residential sites were ranked high impact, while 55 were ranked medium impact and 57 were ranked low impact (Table 1). The most common NPS issues on residential sites were bare soil, shoreline erosion, and a lack of shoreline vegetation. Allowing native plants to grow along the shoreline creates a buffer to prevent shoreline erosion and prevent stormwater from reaching the lake. Seven of the eight identified beach access sites were also located on residential properties, along with all of the five identified boat access sites. Not only were the majority of NPS sites residential, but a majority of high impact sites were located on residential properties. Organizing landowners who are interested in reducing erosion on their properties should be a high priority in planning future work to reduce NPS pollution to Phillips Lake.

Roads & Driveways: Road sites generally have larger erosion problems, which in turn result in a more significant impact on the water quality of the lake and can be more costly than other fixes. Six road sites (five town road sites and 1 driveway) were ranked high impact and should be prioritized for remediation.



Example of an eroding culvert on Balsam Rd.

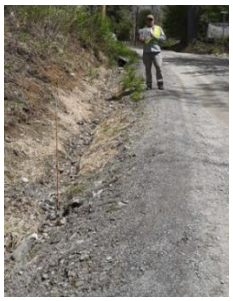
- State roads, town roads, private roads, and driveways, make up 64 road-based sites (31% of sites).
- Forty-five **town road** sites were identified on 16 different roads with the highest number of sites on Lakeview Ave (19 sites). The next highest number of sites was Poplar Road, which only had four sites. The high impact sites were located on Lakeview Ave (2 sites), Larkspur Rd (1 site) and Clear Lake Rd (1 site).
- Five sites were located on **private roads** (Daley Rd, Murray Rd and Pine Trail). Both Daley Rd and Murray Rd had two sites, and Pine Trail had one site. No private road sites were rated high impact (two were rated low impact and three were rated medium impact).
- The 14 **driveway** sites were mostly associated with unpaved driveways (11 of 14), mostly as a result of surface erosion and shoulder erosion. The majority of driveway sites were rated medium impact (11 sites) along with two low impact sites and one high impact site.

Boat Access, Beach Access and Trails/Paths: There were a total of 14 boat access, beach access, and trail or path sites, most of which were on residential properties (12 of 14). Most of these sites were associated with surface erosion, bare soil, unstable shoreline access and a lack of shoreline vegetation. The one high impact site was a paved private boat access site which delivers water at a high velocity to the beach below, causing erosion. Most sites in this category were ranked medium impact (11 sites out of 14). The remaining two sites were ranked low impact (beach access sites on residential properties). Stabilizing access to the shoreline will allow for the continued enjoyment of the lake, while contributing minimal phosphorus.

Other: Additional sites included one commercial site and seven sites labeled "other," which included six sites on the railroad and a sewage pipe crossing a stream. Most of these sites were rated low impact (6 of 8 sites).

Table 2 (below) provides a summary of common issues by land use category and recommendations for addressing these sites.

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

Land Use	Common Issues	Recommendations	Photo
Residential	Surface Erosion	Runoff Diverters, Erosion Control Mulch	
	Bare Soil	Limit Raking, Reseed Lawn, Erosion Control Mulch	
	Lack of Vegetation	Plant Buffer or Add to Buffer	
	Roof Runoff Erosion	Infiltration Trench, Drywell at Gutter Downspout	
	Unstable Paths	Infiltration Steps, Crushed Stone, Runoff Diverters	
Town/Private Rd, Driveway	Unstable/Crushed/ Undersized/Broken Culverts	Armor Culvert Inlet/Outlet, Replace/Enlarge, Install Plunge Pool	
	Ditch Erosion	Reshape Ditch, Armor or Vegetate Ditch, Reshape, Install Check Dams, Sediment Pools	
	Road Shoulder Erosion	Vegetate Shoulder, Remove Grader Berms	
	Surface Erosion	Add Gravel/Build Up, Runoff Diverters	
Beach/Boat Access, Trails & Paths	Bare Soil	Erosion Control Mulch, Crushed Stone, Reseed Bare Areas	
	Unstable Shoreline Access	Define Foot Paths, Add Vegetation, Infiltration Steps, Runoff Diverters, Limit or Reroute Shoreline Access and Stabilize Affected Areas	
	Shoreline Erosion	Toe Slope Protection, Add Vegetation	
	Surface Erosion	Add Erosion Control Mulch, Reseed	
Other	Surface Erosion	Add Vegetation, Reseed Bare Areas, Erosion Control Mix, Stabilize Railroad Banks	
	Unstable Shoreline Access	Infiltration Steps, Add to Buffer, Re-Seed Bare Soil	

Cost of NPS Sites

Recommendations were made for improving each site, along with the estimated cost of labor and materials for all 208 sites. Of the identified sites, 25 are estimated to incur a high cost (>$5,000), seventy-one sites were estimated to be medium cost ($1,000-$5,000), and remainder of sites (112) were estimated to be a low cost to fix (<$1,000) (Figure 8).

Most of the high cost sites were located on town roads. Of the 17 high impact sites, eight had a low estimated cost including seven residential sites and one boat access site which is also located on a residential property. Prioritizing these eight sites with a high impact and low cost would be a great first step towards reducing NPS pollution from the watershed.

Future work should involve coordinating with the Town of Dedham and the Village of Lucerne to make improvements to town roads and building local landowner interest in installing erosion control best management practices (BMPs) on private property. Strong landowner commitment to reducing erosion is needed to protect Phillips Lake, as many of the sites that should be prioritized are privately owned. Grant funds may be available to help landowners fund improvements once a Watershed-Based Protection Plan (WBPP) is approved by DEP and the US Environmental Protection Agency (EPA).

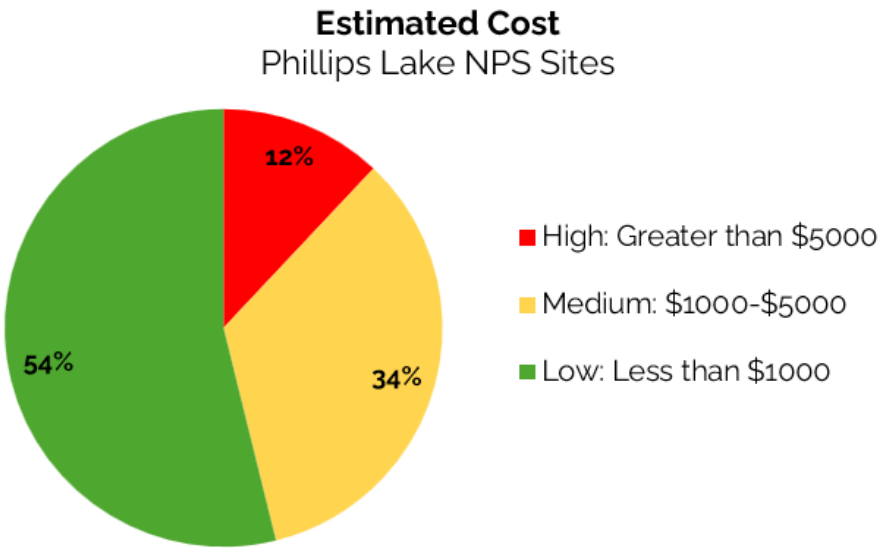


Figure 8. Estimated cost to improve NPS sites in the Phillips Lake watershed.

NEXT STEPS - WHERE DO WE GO FROM HERE?

Improving the NPS sites identified during the Phillips Lake watershed survey will require efforts by state and local municipal officials, PLA, road associations and individual property owners. While prioritizing the identified sites 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.

Additional next steps may include:

1. Distributing summaries of the survey results to key stakeholders, and sharing a copy of the survey report through PLA social media outlets and Town of Dedham website.
2. Sending follow-up letters to all shoreline property owners in the watershed with a summary of findings and a link to the survey report.
3. Reaching out to road associations, and town officials to share results of the watershed survey and discuss cost-sharing opportunities to address high impact and/or high priority sites.
4. Creating a candidate site list of high priority sites and reaching out to landowners to gauge interest in participating in future cost-sharing grant opportunities.
5. Identifying potential LakeSmart properties and developing an outreach strategy to address the numerous low impact shoreline sites.
6. Developing an updated Watershed-Based Protection Plan (WBPP) to establish a schedule and approach for addressing identified NPS sites and to leverage state/federal funding.
7. Applying for grants to begin addressing high impact/high priority NPS sites throughout the watershed.

In addition to these actions, which will be carried out by PLA and the Village of Lucerne, there are many things that individual property owners and municipal officials can start doing now to collectively help with this effort.

Individual Property Owners

- Replace portions of your lawn with a rain garden 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. Deep shrub and tree roots help hold the soil in place and help prevent erosion.
- Don't mow or rake your shoreline or other parts of your property to bare soil. Let leaves and pine needles provide a natural cover to protect the soil or let lawn and raked areas revert to natural vegetation.
- Avoid exposing bare soil. Seed and mulch bare areas using drought-tolerant and/or native seed mixes or cover bare soil with erosion control mulch.

The long-term health of our lake and upstream ponds depends on us all!

Protect Phillips Lake today. Preserve it for tomorrow.

- Never use herbicides or pesticides in the shoreland zone unless you have a permit.
- Avoid using fertilizer within 250 feet of the lake and always get a soil test before applying fertilizer containing phosphorus 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 PLA by becoming a member today and get involved with their programs and activities.

Municipal Officials

- Conduct regular maintenance on town roads in the watershed.
- Enforce shoreland zoning and other ordinances to ensure the long-term protection of Phillips Lake and other waterbodies in the direct and indirect watersheds.
- 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.

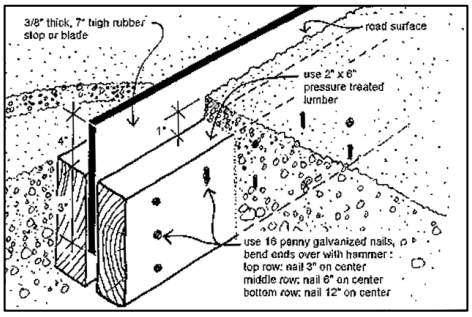
Scan here for more information

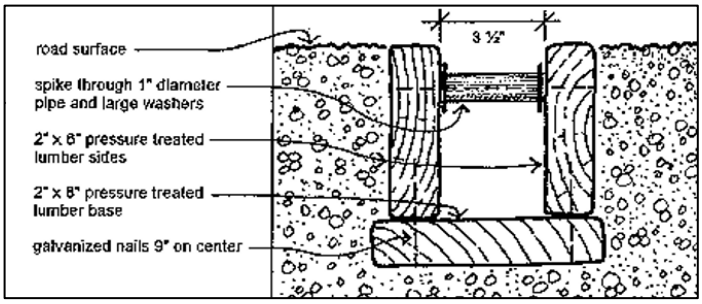
A series of fact sheets are available that answer many common how-to questions about installing Best Management Practices (BMPs). The fact sheets profile 20 common conservation practices and include detailed instructions, diagrams and color photos about installation and maintenance. The series includes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

- Lakes Like Less Lawn
- Turnouts
- Rain Gardens
- Paths and Walkways
- Live Staking
- Infiltration Steps
- Infiltration Trench
- Dripline Trench
- Diverters
- Permitting
- Erosion Control Mix
- Dry Wells
- Native Plants
- Rain Barrels
- Construction BMPs
- Planting and Maintaining Buffers

Below are a few examples of 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.

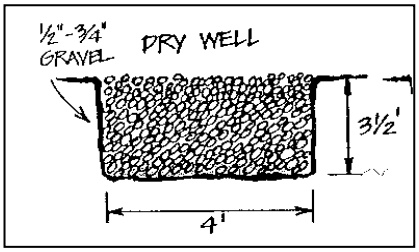
Rubber Razor Blade: Use this structure in a gravel driveway or camp road. It can be plowed over only if the plow operator is aware of its presence and lifts the plow blade slightly. Place it at a 30-degree angle to the road edge and direct the outlet toward a stable vegetated area.





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. The first step to acquiring a permit should be contacting your town's code enforcement officer.

Municipal Shoreland Zoning Ordinance – Municipal Shoreland Zoning ordinances may be more stringent than state requirements. Always contact your local code enforcement officer and acquire the necessary municipal permits before moving soil or clearing vegetation within the shoreland zone.

Statewide 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 now being submitted through the Maine Enterprise Licensing System (MELS) Hub.

- 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 communicate 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

Phillips Lake Association
PO Box 133, Dedham, ME 04429
phillipslakeme@gmail.com

Town of Dedham, Code Enforcement
Alex Treworgy, Code Enforcement Officer
(207) 843-6217
https://www.dedhamme.org

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. January 2020. DEPLW-1071.
https://www.maine.gov/dep/land/watershed/documents/archive/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

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

LakeSmart. Maine Lakes. https://mainelakes.org/resources/lakesmart/

Maine Shoreland Zoning—A Handbook for Shoreland Owners. Maine DEP. 2008. DEPLW0674-D08. 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. https://www.lakes.me/lakebook

Town of Dedham Website https://www.dedhamme.org

ATTACHMENTS

Attachment 1- Watershed Survey Field Data Sheet.....p. 22

Attachment 2- List of NPS Sites (Phillips Lake).....p. 24

ATTACHMENT 1- WATERSHED SURVEY FIELD DATA SHEET

Final Site #_____ Checked by _____ Date _____

Watershed Survey Field Sheet

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

Lake/Watershed Name_____

Sector & Site_____ Date_____ Surveyor Initials _____ Time_____

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 **UTM**
(no degrees or decimal points)

0						

Land Use/Activity (Circle ONE)	**Description of Problems** Circle ALL that apply	
State Road*	**Culvert**	**Soil**
Town Road*	Unstable Inlet / Outlet	Bare
Private Road*	Clogged	Uncovered Pile
Driveway*	Crushed / Broken	Delta in Stream/Lake
Residential	Misaligned	Winter Sand
Commercial	Culvert Too Short/Long	**Roof Runoff Erosion**
Municipal / Public	Culvert Outlet Hanging	**Shoreline**
Beach Access	Culvert Diameter Smaller than Width of Channel	Undercut
Boat Access*	Drainage Issues	Lack of Shoreline Vegetation
Trail or Path	Evidence of Extreme Weather (Blown-Out)	Inadequate Shoreline Vegetation
Logging	**Ditch**	Erosion
Agriculture	Slight Erosion	Unstable Access
Construction Site	Moderate Erosion	**Agriculture**
OTHER:	Severe Erosion	Livestock Access to Waterbody
**** Is it: paved, gravel or other/unknown?***	Bank Failure	Tilled Eroding Fields
Surface Erosion	Undersized	Manure Washing off Site
Sheet	**Road Shoulder Erosion**	**OTHER:**
Rill	Sheet	Potential Septic Issue
Gully	Rill	Fertilizer Use in SLZ
Roadside Plow/Grader Berm	Gully	Hazardous Materials
		Invasive Plants on Shoreline

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

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

Recommendations		
Culvert Armor Inlet/Outlet Remove Clog Replace Enlarge Realign Adjust Length Install Culvert Install Plunge Pool (I/O) Drainage Assessment Needed **Ditch** Vegetate Armor with Stone Reshape Ditch Install Turnouts Install Ditch Install Check Dams Remove debris/sediment Install Sediment Pools **Construction Site** Mulch Silt Fence / EC Berms Seed / Hay Check Dams	**Roads / Driveways** Remove Grader/Plow Berms Build Up Add Gravel Add Recycled Asphalt Pave Reshape (Crown) Vegetate Shoulder Install Catch Basin Install Detention Basin Install Runoff Diverters • Broad-based Dip • Open Top Culvert • Rubber Razor • Waterbar **Paths & Trails** Define Foot Path Stabilize Foot Path Infiltration Steps Install Runoff Diverter Erosion Control Mulch	**Roof Runoff** Infiltration Trench @ roof dripline Drywell @ gutter downspout Rain Barrel **Other** Install Runoff Diverter (waterbar) Mulch / Erosion Control Mix Rain Garden Infiltration Trench Water Retention Swales Rip Rap Remove Invasive Plants Septic Inspection **Vegetation** Establish Buffer Add to/Extend Buffer No Raking Reseed bare soil & thinning grass **Other Suggestions:** Remove Invasive Plants Septic Inspection

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**	High: 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**	Med: 6-7 pts
Sheet - **1**	Small - **1**	Significant buffer or filtering* - **1**	Low: 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 $5,000
Medium:	$1,000-$5,000
Low:	Less than $1,000

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

Certified LakeSmart Property? ❒ Yes ❒ No **Potential YCC Project?** ❒ Yes ❒ No ❒ Maybe

ATTACHMENT 2- PHILLIPS LAKE WATERSHED SURVEY RESULTS

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
1-01	Bridle Path	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare	35 x 4 ft	Moderate	No Raking, Reseed bare soil & thinning grass; Mulch/Erosion Control Mix	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
1-02	Potter Dr	Directly into lake	Residential	Surface Erosion-Sheet	30 x 5 ft	Steep	Establish Buffer, Add to Buffer	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
1-03	Bridle Path	Directly into lake	Residential	Surface Erosion-Sheet; Shoreline-Undercut, Shoreline-Lack of Shoreline Vegetation, Shoreline-Inadequate Shoreline Vegetation, Shoreline-Unstable Access	50 x 50 ft	Steep	Infiltration Steps, Define Foot Path, Stabilize Foot Path, Erosion Control Mulch; Establish Buffer, Add to Buffer, No Raking, Reseed bare soil & thinning grass; Seems like they are dumping fire ash near the lake.	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
1-04	Bridle Path	Directly into lake	Residential	Surface Erosion-Sheet; Shoreline-Lack of Shoreline Vegetation, Shoreline-Inadequate Shoreline Vegetation	10 x 30 ft	Steep	Establish Buffer, Add to Buffer	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
1-05	Pine Trail	Directly into lake	Residential	Surface Erosion-Sheet	30 x 30 ft	Steep	Establish Buffer, Add to Buffer, No Raking, Reseed bare soil & thinning grass	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
1-06	Pine Trail	Directly into lake	Residential	Surface Erosion-Sheet; Shoreline-Undercut, Shoreline-Lack of Shoreline Vegetation, Shoreline-Inadequate Shoreline Vegetation	7 x 3 ft	Steep	Add to Buffer, Establish Buffer; Add coir logs and small stones. Plant at the top.	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
1-07	Pine Trail	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare	5 x 10 ft	Flat	Establish Buffer, 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
1-08	Pine Trail	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare	30 x 30 ft	Steep	Establish Buffer, Add to Buffer, Reseed bare soil & thinning grass	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
1-09	Pine Trail	Directly into lake	Residential	Shoreline-Erosion	20 x 20 ft	Steep	Establish Buffer, Add to Buffer, Reseed bare soil & thinning grass	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
1-10	Pine Trail	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare	10 x 5 ft	Steep	Establish Buffer, Add to Buffer, Reseed bare soil & thinning grass	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
1-11	Pine Trail	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare	20 x 20 ft	Steep	Establish Buffer, Add to Buffer, Reseed bare soil & thinning grass	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
1-12	Pine Trail	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare	20 x 10 ft	Steep	Establish Buffer, Stabilize shoreline.	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
1-13	Pine Trail	Directly into lake	Residential	Surface Erosion-Sheet, Surface Erosion-Gully	30 x 2 ft	Moderate	Slow runoff from railroad and add larger vegetation.	High	Low: Less than $1000	Low: Property owner can accomplish with reference materials

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
1-14	Pine Trail	Ditch	Residential	Surface Erosion-Rill	20 x 1 ft	Flat	Infiltration Trench @ roof dripline; Driveway eroding adding to dripline erosion. Dripline going into culvert ditch that makes it into the lake via site 1-13.	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
1-15	Pine Trail	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare; Shoreline-Erosion, Shoreline-Unstable Access, Shoreline-Inadequate Shoreline Vegetation, Shoreline-Lack of Shoreline Vegetation	5 x 5 ft	Flat	Define Foot Path, Erosion Control Mulch; Establish Buffer, Add to Buffer, Reseed bare soil & thinning grass	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
1-16	Pine Trail	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare; Shoreline-Unstable Access	3 x 6 ft	Flat	Erosion Control Mulch; Establish Buffer, Add to Buffer, Reseed bare soil & thinning grass, No Raking; Armor side of bank underneath steps and apply ECM.	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
1-16-2	Bragg Rd	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare; Shoreline-Erosion, Shoreline-Lack of Shoreline Vegetation, Shoreline-Inadequate Shoreline Vegetation	10 x 10 ft	Steep	Establish Buffer, Add to Buffer, Reseed bare soil & thinning grass	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
1-17	Near Dam off Fitts Mountain Rd	Directly into lake	Other (describe below)	Surface Erosion-Sheet	8 x 4 ft	Steep	Infiltration Steps, Erosion Control Mulch; Establish Buffer, Add to Buffer, Reseed bare soil & thinning grass	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
1-18	Bragg Rd	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare	10 x 5 ft	Steep	Establish Buffer, Add to Buffer, Reseed bare soil & thinning grass	Low	Low: Less than $1000	Low: Property owner can accomplish with

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
										reference materials
1-19	Bragg Rd	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare	20 x 20 ft	Steep	Establish Buffer, Add to Buffer, Reseed bare soil & thinning grass	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
2-01	Pine Trail	Directly into lake	Residential	Surface Erosion-Sheet; Shoreline-Lack of Shoreline Vegetation, Shoreline-Erosion	2 x 5 ft	Steep	Establish Buffer, Reseed bare soil & thinning grass; Mulch/Erosion Control Mix; Could plant buffer along shoreline	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
2-02	Pine Trail	Directly into lake	Residential	Surface Erosion-Rill; Shoreline-Unstable Access, Shoreline-Erosion, Shoreline-Inadequate Shoreline Vegetation	3 x 10 ft	Steep	Stabilize Foot Path; Add to Buffer, Reseed bare soil & thinning grass; Mulch/Erosion Control Mix	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
2-03	Pine Trail	Directly into lake	Residential	Surface Erosion-Sheet; Shoreline-Lack of Shoreline Vegetation, Shoreline-Erosion, Shoreline-Unstable Access	8 x 30 ft	Moderate	Define Foot Path, Infiltration Steps, Install Runoff Diverter (waterbar), Erosion Control Mulch; Add to Buffer; Install Runoff Diverter (waterbar)	Low	Medium: $1000-$5000	High: Site requires engineered design
2-04	First Rd	Directly into lake	Residential	Shoreline-Inadequate Shoreline Vegetation, Shoreline-Erosion	5 x 20 ft	Flat	Establish Buffer	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
2-05	First Rd	Directly into lake	Residential	Soil-Bare; Shoreline-Inadequate Shoreline Vegetation, Shoreline-Erosion	5 x 5 ft	Moderate	Add to Buffer, Reseed bare soil & thinning grass	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
2-06	Clydes Yard Rd	Directly into lake	Residential	Surface Erosion-Sheet; Shoreline-Inadequate Shoreline Vegetation, Shoreline-Erosion	10 x 10 ft	Moderate	Add to Buffer, Reseed bare soil & thinning grass; Mulch/Erosion Control Mix	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
2-07	Highland Dr	Directly into lake	Residential	Surface Erosion-Rill; Shoreline-Erosion	3 x 15 ft	Steep	Establish Buffer; Rip Rap; Replace old beams that are falling with riprap or natural shoreline	Medium	High: Greater than $5000	Medium: Technical person should visit site & make recommendations
2-08	Highland Dr	Directly into lake	Residential	Surface Erosion-Rill, Surface Erosion-Sheet; Shoreline-Lack of Shoreline Vegetation, Shoreline-Erosion	4 x 10 ft	Steep	Infiltration Steps; Establish Buffer, Reseed bare soil & thinning grass; Install Runoff Diverter (waterbar), Remove Invasive Plants, Mulch/Erosion Control Mix	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
2-09	Highland Dr	Directly into lake	Residential	Surface Erosion-Sheet, Surface Erosion-Rill; Soil-Bare; Shoreline-Lack of Shoreline Vegetation, Shoreline-Erosion	6 x 20 ft	Steep	Establish Buffer; Install Runoff Diverter (waterbar), Rip Rap, Mulch/Erosion Control Mix	Medium	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
2-10	Daley Rd/Richards way	Ditch	Private Road*	Surface Erosion-Gully; Ditch-Gully Erosion; Road Shoulder Erosion-Rill	5 x 60 ft	Steep	Vegetate, Install Check Dams, Remove debris/sediment	Medium	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
2-11	Daley Rd	Ditch	Private Road*	Surface Erosion-Rill; Ditch-Rill Erosion; Road Shoulder Erosion-Rill	3 x 40 ft	Steep	Vegetate, Install Check Dams	Low	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
2-12	Pine Trail	Ditch	Residential	Surface Erosion-Gully; Culvert-Larger Drainage Issues	3 x 50 ft	Moderate	Assess Drainage Area; Check overall road drainage in area on pine trail	Medium	High: Greater than $5000	High: Site requires engineered design

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
2-13	Pine Trail at turn above Daley Rd	Ditch	Private Road*	Surface Erosion-Rill	15 x 60 ft	Moderate	Add gravel, Install Runoff Diverters-Rubber Razor, Install Runoff Diverters-Waterbar, Install Catch Basin, Reshape (Crown)	Medium	High: Greater than $5000	High: Site requires engineered design
3-01	Waters Edge	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare	20 x 20 ft	Moderate	Define Foot Path, Erosion Control Mulch; Reseed bare soil & thinning grass	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
3-02	Waters Edge	Directly into lake	Beach Access	Soil-Bare; Shoreline-Lack of Shoreline Vegetation	150 x 15 ft	Flat	Establish Buffer	Medium	Medium: $1000-$5000	Low: Property owner can accomplish with reference materials
3-03	Maple Rd	Directly into lake	Residential	Soil-Bare	200 x 50 ft	Steep	Define Foot Path; Reseed bare soil & thinning grass; Mulch/Erosion Control Mix	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
3-04	Maple Rd	Directly into lake	Driveway*	Surface Erosion-Sheet; Soil-Bare	200 x 100 ft	Steep	Install Runoff Diverter (waterbar), Erosion Control Mulch; Reseed bare soil & thinning grass	Medium	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
3-05	Maple Rd	Directly into lake	Residential	Shoreline-Lack of Shoreline Vegetation, Shoreline-Erosion	200 x 2 ft	Flat	Add to Buffer	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
3-06	Off Main Rd	Stream	Other (describe below)	Sewage pipe over stream	3 ft	Flat	Sewage pipe runs over stream	Low	Low: Less than $1000	High: Site requires engineered design
3-07	Commercial Camp	Directly into lake	Commercial	Soil-Bare; Shoreline-Lack of Shoreline Vegetation, Shoreline-Erosion	300 x 15 ft	Flat	Establish Buffer	Medium	Medium: $1000-$5000	Low: Property owner can accomplish with

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
										reference materials
3-07-2	Sunset Rd	Ditch	Town Road*	Culvert-Unstable inlet/outlet, Culvert-Clogged	10 x 2 ft	Moderate	Remove Clog, Armor Inlet/Outlet	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
3-08	Sunset Rd at road bend	Ditch	Town Road*	Road Shoulder Erosion-Sheet; Soil-Bare, Soil-Winter Sand	200 x 8 ft	Moderate	Vegetate Shoulder, Install Catch Basin	Low	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
3-09	Sunset Rd	Ditch	Town Road*	Culvert-Unstable inlet/outlet, Culvert-Clogged, Culvert-Misaligned; Ditch-Sheet Erosion, Ditch-Bank Failure	200 x 4 ft	Flat	Armor Inlet/Outlet, Remove Clog, Install Culvert, Install Plunge Pool	Low	High: Greater than $5000	Medium: Technical person should visit site & make recommendations
4-01	Intersection Maple and Brentwood	Ditch	Town Road*	Surface Erosion-Gully; Culvert-Unstable inlet/outlet, Culvert-Misaligned, Culvert-Diameter too small; Ditch-Gully Erosion; Road Shoulder Erosion-Gully	3 x 6 ft	Flat	Remove Clog; Septic Inspection; Restabilize culvert	Low	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
4-02	Above Maple Rd at Brentwood	Minimal Vegetation	Town Road*	Surface Erosion-Gully; Culvert-Unstable inlet/outlet, Culvert-Crushed Broken, Culvert-Blown out; Ditch-Gully Erosion; Road Shoulder Erosion-Rill; Soil-Bare	4 x 4 ft	Steep	Armor Inlet/Outlet, Enlarge, Adjust Length; Reshape Ditch; Build Up, Add gravel, Reshape (Crown)	Low	High: Greater than $5000	High: Site requires engineered design
4-03	Pearl Point Rd	Ditch	Town Road*	Surface Erosion-Gully; Culvert-Clogged	4 x 4 ft	Steep	Remove debris/sediment	Low	Low: Less than $1000	Low: Property owner can accomplish with

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
										reference materials
4-05	Pearl Point Rd and Capella driveway	Stream	Town Road*	Culvert-Unstable inlet/outlet; Ditch-Bank Failure	30 x 5 x 2.5 ft deep	Moderate	Assess Drainage Area; Remove debris/sediment, Reshape Ditch	High	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
4-06	Poplar Rd	Ditch	Town Road*	Culvert-Clogged	3 x 3 ft	Flat	Remove Clog; Remove debris/sediment; Remove Invasive Plants	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
4-07	Poplar Rd	Ditch	Town Road*	Surface Erosion-Gully; Culvert-Clogged, Culvert-Diameter too small; Ditch-Undersized	4 x 4 ft	Flat	Remove Clog, Enlarge; Remove debris/sediment	Low	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
4-08	Poplar Rd	Ditch	Town Road*	Culvert-Clogged, Culvert-Hanging Outlet	6 x 6 ft	Steep	Remove Clog; Remove debris/sediment	Medium	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
4-10	Poplar Rd	Directly into lake	Residential	Culvert-Unstable inlet/outlet, Culvert-Larger Drainage Issues, Culvert-Blown out	6 cu yards	Moderate	Assess Drainage Area, Install Plunge Pool, Realign	High	High: Greater than $5000	Medium: Technical person should visit site & make recommendations
4-10-2	Poplar Rd	Stream	Other (describe below)	Culvert-Unstable inlet/outlet; Ditch-Bank Failure	50 x 2 ft	Moderate	Vegetate, Armor with Stone	Low	Low: Less than $1000	Medium: Technical person should visit site & make recommendations
4-11	Larkspur Rd	Ditch	Town Road*	Ditch-Gully Erosion, Ditch-Bank Failure; Soil-Bare	800 x 5 ft	Steep	Armor with Stone, Vegetate	High	High: Greater than $5000	Medium: Technical person should visit site & make recommendations

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
5-01	Corner of Poplar Rd and Lily Rd	Ditch	Town Road*	Surface Erosion-Sheet; Culvert-Unstable inlet/outlet, Culvert-Crushed Broken	20 x 12 ft	Steep	Armor Inlet/Outlet, Replace; Outlet looks great. Might not be high priority. Inlet is eroding and a little damaged.	Medium	High: Greater than $5000	High: Site requires engineered design
5-02	Warren Dr	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare; Shoreline-Lack of Shoreline Vegetation	7 x 2 ft	Moderate	Add to Buffer, No Raking, Reseed bare soil & thinning grass; Mulch/Erosion Control Mix; Mulch or gravel for heavily trafficked areas. Plant shoreline vegetation. Reseed area used for dock storage.	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
5-03	Warren Dr	Minimal Vegetation	Driveway*	Surface Erosion-Rill, Surface Erosion-Sheet; Soil-Bare; Shoreline-Lack of Shoreline Vegetation	20 x 3 ft	Steep	Build Up, Add gravel; Stabilize Foot Path; Loosing part of the driveway. Very small. Stabilize footpath below.	Low	Medium: $1000-$5000	Low: Property owner can accomplish with reference materials
5-04	Warren Dr	Minimal Vegetation	Residential	Surface Erosion-Sheet; Soil-Bare; Roof Runoff Erosion	1 x 10 ft	Flat	Define Foot Path, Stabilize Foot Path; Drywell @ gutter downspout, Infiltration Trench @ roof dripline; Establish Buffer; Clear needles from gutter. Additional plant will prevent big divots from forming by rocks or shore.	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
5-05	Lily Rd	Minimal Vegetation	Residential	Surface Erosion-Sheet; Soil-Bare	10 x 2 ft	Moderate	Stabilize Foot Path	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
5-06	Lily Rd	Minimal Vegetation	Driveway*	Surface Erosion-Sheet	50 x 10 ft	Moderate	Install Runoff Diverters-Rubber Razor	Medium	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
5-07	Balsam Rd	Minimal Vegetation	Residential	Surface Erosion-Sheet; Soil-Bare	20 x 4 ft	Moderate	Define Foot Path, Stabilize Foot Path, Erosion Control Mulch; No Raking, Establish Buffer; Install BMPs to divert/infiltrate water coming off of the driveway.	Low	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
5-08	Balsam Rd	Minimal Vegetation	Residential	Surface Erosion-Sheet; Soil-Bare; Shoreline-Lack of Shoreline Vegetation	10 x 15 ft	Steep	Install Runoff Diverter (waterbar); Add to Buffer; Continue terracing efforts or divert water towards trees.	Low	Medium: $1000-$5000	Low: Property owner can accomplish with reference materials
5-09	Above Balsam Rd	Minimal Vegetation	Town Road*	Surface Erosion-Sheet	50 x 10 ft	Steep	Reshape (Crown), Install Runoff Diverters-Broad-based Dip, Install Runoff Diverters-Rubber Razor	Low	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
5-10	Balsam Rd	Minimal Vegetation	Other (describe below)	Surface Erosion-Sheet	12 x 6 ft	Steep	Stabilize raid road bank	Low	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
5-11	Balsam Rd	Minimal Vegetation	Residential	Surface Erosion-Sheet; Soil-Bare; Shoreline-Inadequate Shoreline Vegetation, Shoreline-Unstable Access	1 x 15 ft	Flat	Stabilize Foot Path; Add to Buffer; Mulch/Erosion Control Mix	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
5-12	Balsam Rd	Minimal Vegetation	Residential	Surface Erosion-Sheet; Soil-Bare	15 x 15 ft	Moderate	Define Foot Path; No Raking, Reseed bare soil & thinning grass;	Low	Low: Less than $1000	Low: Property owner can accomplish with

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
							Mulch/Erosion Control Mix			reference materials
5-13	Corner of Balsam Rd and Spruce Rd	Ditch	Town Road*	Surface Erosion-Sheet; Culvert-Unstable inlet/outlet	10 x 5 ft, 10 x 5 ft	Moderate	Armor Inlet/Outlet	Low	High: Greater than $5000	High: Site requires engineered design
5-14	Railroad by Balsam Rd	Minimal Vegetation	Other (describe below)	Surface Erosion-Sheet; Culvert-Crushed Broken	NA	Flat	Replace	Low	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
5-15	Railroad by Balsam Rd	Minimal Vegetation	Other (describe below)	Surface Erosion-Sheet	18 x 8 ft	Steep	Stabilize railroad area	Medium	High: Greater than $5000	High: Site requires engineered design
5-16	Warren Dr	Minimal Vegetation	Other (describe below)	Surface Erosion-Sheet; Soil-Bare	25 x 6 ft	Steep	Stabilize railroad	Low	High: Greater than $5000	High: Site requires engineered design
5-17	Culvert driveway off Spruce Rd	Ditch	Town Road*	Surface Erosion-Sheet; Culvert-Crushed Broken	12 x 8 ft	Flat	Replace; Remove Grader/Plow Berms	Low	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
5-18	Balsam Rd	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare; Shoreline-Inadequate Shoreline Vegetation	5 x 15 ft	Steep	Add to Buffer, No Raking, Reseed bare soil & thinning grass	Medium	Low: Less than $1000	Medium: Technical person should visit site & make recommendations
5-19	Balsam Rd	Ditch	Town Road*	Surface Erosion-Sheet; Culvert-Unstable inlet/outlet, Culvert-Clogged; Ditch-Sheet Erosion; Berm	15 x 3 ft	Moderate	Remove Clog, Replace; Build Up, Reshape (Crown)	Low	High: Greater than $5000	High: Site requires engineered design
5-99	Clear Lake Rd/Allen Brook Rd	Stream	Town Road*	Surface Erosion-Gully; Culvert-Misaligned, Culvert-Hanging Outlet, Culvert-Diameter too	200' x 15' ft	Moderate	Replace, Enlarge, Realign, Assess Drainage Area; Rock	High	High: Greater than $5000	High: Site requires engineered design

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
	culvert crossing			small, Culvert-Larger Drainage Issues			sandwiches to restore wetland connectivity			
6-01	Ash Rd	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare	10 x 25 ft	Moderate	Mulch/Erosion Control Mix; ECM or stone to cover bare soil under deck	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
6-02	Ash Rd	Minimal Vegetation	Residential	Surface Erosion-Sheet; Roof Runoff Erosion	30 x 5 ft	Steep	Stabilize Foot Path, Infiltration Steps, Erosion Control Mulch; Infiltration Trench @ roof dripline; Divert runoff away from bare soil under house, ECM under deck to filter runoff from under house	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
6-03	Rockridge Rd	Minimal Vegetation	Residential	Surface Erosion-Sheet; Shoreline-Unstable Access	30 x 30 ft	Moderate	Infiltration Steps, Stabilize Foot Path; No Raking; Mulch/Erosion Control Mix	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
6-04	Rockridge Rd	Minimal Vegetation	Driveway*	Surface Erosion-Rill; Road Shoulder Erosion-Sheet	100 x 15 ft	Steep	Install Plunge Pool; Plunge pool(s) at outlet downhill of garage of driveway culvert,	Medium	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
6-05	Rockridge Rd	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Uncovered Pile; Shoreline-Inadequate Shoreline Vegetation	40 x 3, 30 x 20 ft	Moderate	Add to Buffer; Mulch/Erosion Control Mix; ECM & terracing in gardens, planting behind stone wall	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
6-06	Rockridge Rd	Minimal Vegetation	Town Road*	Surface Erosion-Sheet, Surface Erosion-Rill; Culvert-Clogged; Ditch-Rill Erosion; Berm	20 x 100 ft	Moderate	Remove Clog, Armor Inlet/Outlet, Install Plunge Pool; Vegetate, Armor with Stone, Reshape Ditch; Build Up, Reshape (Crown)	Medium	Medium: $1000-$5000	Low: Property owner can accomplish with reference materials

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
6-07	Rockridge Rd	Directly into lake	Residential	Surface Erosion-Sheet; Shoreline-Inadequate Shoreline Vegetation	25 x 15 ft	Moderate	Define Foot Path, Stabilize Foot Path, Erosion Control Mulch; Drywell @ gutter downspout; Add to Buffer, Reseed bare soil & thinning grass	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
6-08	Culvert on Rockridge Rd	Stream	Town Road*	Surface Erosion-Sheet; Road Shoulder Erosion-Rill; Berm	60 x 2 ft	Steep	Armor Inlet/Outlet, Install Plunge Pool; Vegetate, Armor with Stone, Reshape Ditch; Remove Grader/Plow Berms	Medium	Medium: $1000-$5000	Low: Property owner can accomplish with reference materials
6-09	Culvert on Rockridge Rd & driveway culvert	Stream	Town Road*	Surface Erosion-Rill; Culvert-Clogged, Culvert-Unstable inlet/outlet; Ditch-Rill Erosion; Road Shoulder Erosion-Rill; Berm	200 x 10 ft	Moderate	Armor Inlet/Outlet, Install Plunge Pool, Enlarge, Remove Clog; Armor with Stone, Reshape Ditch; Remove Grader/Plow Berms	Medium	Medium: $1000-$5000	Low: Property owner can accomplish with reference materials
6-10	Rockridge Rd	Directly into lake	Residential	Surface Erosion-Sheet; Shoreline-Unstable Access, Shoreline-Inadequate Shoreline Vegetation	15 x 2 ft	Flat	Define Foot Path, Stabilize Foot Path; Add to Buffer	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
6-11	Lunt Ln	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare; Shoreline-Inadequate Shoreline Vegetation	30 x 10 ft	Flat	Establish Buffer, Add to Buffer; Mulch/Erosion Control Mix; ECM instead of gravel near shoreline, plants along shoreline walls where water flows through	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
6-12	Lunt Ln	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare; Shoreline-Unstable Access	60 x 4 ft	Flat	Erosion Control Mulch, Stabilize Foot Path; No Raking	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
6-13	Border Rd	Directly into lake	Residential	Surface Erosion-Rill; Shoreline-Unstable Access	30 x 4 ft	Steep	Stabilize Foot Path, Erosion Control Mulch; Replace fine gravel with larger crushed stone for infiltration on paths and steps where possible, ECM and/or infiltration steps to stabilize steep path	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
6-14	public access lot next to entrance to Border Rd	Directly into lake	Beach Access	Surface Erosion-Rill; Soil-Bare; Shoreline-Unstable Access	20 x 40 ft	Steep	Define Foot Path, Stabilize Foot Path, Erosion Control Mulch; Add to Buffer; Mulch/Erosion Control Mix	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
6-15	Beginning of Border Rd	Minimal Vegetation	Town Road*	Surface Erosion-Rill	100 x 12 ft	Steep	Reshape (Crown), Install Runoff Diverters-Rubber Razor, Install Runoff Diverters-Open Top Culvert	Medium	Medium: $1000-$5000	Low: Property owner can accomplish with reference materials
6-16	Lakeview Ave	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare	100 x 30 ft	Flat	Mulch/Erosion Control Mix; Cover bare sand with ECM	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
6-17	Lakeview Ave	Minimal Vegetation	Driveway*	Surface Erosion-Gully	150 x 30 ft	Moderate	Reshape (Crown)	Medium	High: Greater than $5000	Medium: Technical person should visit site & make recommendations
6-18	Hancock Rd	Directly into lake	Boat Access*	Surface Erosion-Gully; Soil-Bare; Shoreline-Lack of Shoreline Vegetation	100 x 15 ft	Moderate	Install Runoff Diverters-Waterbar; Define Foot Path, Stabilize Foot Path, Install Runoff Diverter (waterbar); Mulch/Erosion Control Mix; Convert upper part of gravel path near	Medium	Medium: $1000-$5000	Low: Property owner can accomplish with reference materials

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
							house into narrow footpath, add plants and stabilize with ECM, cover road/boat access with ECM			
6-19	Headland Rd	Minimal Vegetation	Residential	Surface Erosion-Rill; Soil-Bare; Shoreline-Unstable Access	20 x 4 ft	Steep	Infiltration Steps, Erosion Control Mulch; Reseed bare soil & thinning grass	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
6-30	Lakeview Dr	Minimal Vegetation	Residential	Other; Fireplace ash in wetland near lake	5 x 5 ft	Moderate	Properly dispose of ash	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
7-01	Mulberry Rd	Directly into lake	Beach Access	Surface Erosion-Rill; Shoreline-Lack of Shoreline Vegetation, Shoreline-Erosion, Shoreline-Undercut, Shoreline-Unstable Access; Other; Fireplace ash on beach, driveway runoff sheeting to lake across grass	50 x 15 ft	Moderate	Establish Buffer; Drywell at end of driveway functioning?	Medium	Medium: $1000-$5000	Low: Property owner can accomplish with reference materials
7-02	Mulberry Rd	Directly into lake	Residential	Surface Erosion-Rill; Soil-Bare; Roof Runoff Erosion	15 x 15 ft	Moderate	Infiltration Trench @ roof dripline; Add to Buffer; Mulch/Erosion Control Mix, Septic Inspection; ECM around stairway and access driveways, old camp, septic inspection recommended	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
7-03	Mulberry Rd	Directly into lake	Driveway*	Surface Erosion-Rill; Soil-Bare; Shoreline-Unstable Access; Other; Pesticide sign on front	20 x 20 ft	Steep	Install Runoff Diverters-Waterbar, Install Catch Basin; Establish Buffer; Mulch/Erosion Control	Medium	Medium: $1000-$5000	Medium: Technical person should visit site &

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
				lawn sheds to driveway which flows to lake			Mix; Capture driveway runoff, vegetate slope, ECM			make recommendations
7-04	Mulberry Rd	Minimal Vegetation	Residential	Surface Erosion-Sheet; Soil-Bare; Shoreline-Lack of Shoreline Vegetation, Shoreline-Unstable Access, Shoreline-Erosion; Roof Runoff Erosion	50 x 5 ft	Flat	Infiltration Trench @ roof dripline; Establish Buffer	Low	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
7-05	Mulberry Rd	Directly into lake	Residential	Surface Erosion-Sheet; Other; Terraced stairway needs maintenance to prevent movement of soil to lake.	20 x 8 ft	Steep	Erosion Control Mulch; Excavate terraced steps to provide depth and add ECM	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
7-06	Echo Cove Rd	Directly into lake	Beach Access	Surface Erosion-Sheet; Soil-Bare; Shoreline-Lack of Shoreline Vegetation	20 x 10 ft	Moderate	Infiltration Steps, Stabilize Foot Path; Add to Buffer; Replace concrete steps with infiltration steps or at least top step in each tier. Add veg and ECM to bottom left corner.	Medium	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
7-07	Echo Cove Rd	Directly into lake	Beach Access	Surface Erosion-Sheet; Soil-Bare; Shoreline-Lack of Shoreline Vegetation, Shoreline-Erosion; Other; Sand added to create beach and sitting area, eroding over rock added to shoreline	80 x 20 ft	Moderate	Establish Buffer; Add buffer above riprap	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
7-08	Echo Cove Rd	Directly into lake	Beach Access	Surface Erosion-Rill; Other; Possible ROW. Erosion potential and evidence of rills under pine needles	75 x 5 ft	Steep	Install Runoff Diverters-Waterbar; Add 1-2 water bars across ROW	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
7-09	Echo Cove Rd	Directly into lake	Residential	Other; Firepit full of ash on edge of lake no cover, many smaller trees marked for cutting and mature trees recently cut	3 x 3 ft	Moderate	Move fire pit away from water, keep all trees in SLZ	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
7-10	Echo Cove Rd	Minimal Vegetation	Beach Access	Surface Erosion-Sheet; Soil-Bare; Shoreline-Erosion, Shoreline-Unstable Access	25 x 25 ft	Steep	Install Runoff Diverter (waterbar), Erosion Control Mulch; Reseed bare soil & thinning grass; Revegetate slope and/or add runoff diverter/terrace	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
7-11	Echo Cove Rd	Directly into lake	Beach Access	Surface Erosion-Sheet; Soil-Bare; Shoreline-Inadequate Shoreline Vegetation; Other; Large sand beach, no defined use area	30 x 20 ft	Moderate	Add to Buffer; Revegetate upper beach area below wall, define walking path	Medium	Medium: $1000-$5000	Low: Property owner can accomplish with reference materials
7-12	Granite Rd	Directly into lake	Residential	Surface Erosion-Rill, Surface Erosion-Gully, Surface Erosion-Sheet; Soil-Bare; Shoreline-Lack of Shoreline Vegetation, Shoreline-Unstable Access; Roof Runoff Erosion; Other; Granite steps allowing water to flow through to gulley from roof runoff. Septic holding tank?	60 x 10 ft	Steep	Install Runoff Diverter (waterbar); Infiltration Trench @ roof dripline; Add to Buffer, Reseed bare soil & thinning grass; Install Runoff Diverter (waterbar); Reset terraced steps to water, retrofit existing granite steps for infiltration steps, Infiltration steps at top by side door. Resurface upper walkway with gravel.	Medium	Medium: $1000-$5000	Low: Property owner can accomplish with reference materials
7-13	Granite Rd	Directly into lake	Residential	Surface Erosion-Sheet; Shoreline-Lack of Shoreline Vegetation; Other; Larger	35 x 10 ft	Steep	Add to Buffer; Add native vegetation to mulched areas down by	Low	Low: Less than $1000	Low: Property owner can accomplish with

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
				unvegetated mulched area near water. Mulch adequate but washing in places.			dock and adjacent to granite steps to water			reference materials
7-14	Mulberry Rd	Directly into lake	Boat Access*	Surface Erosion-Sheet, Surface Erosion-Rill; Other; Path coming off driveway over-widened and receiving runoff from driveway above	800 sq ft	Moderate	Define Foot Path, Erosion Control Mulch, Install Runoff Diverter (waterbar); Install Runoff Diverter (waterbar); Plant sides of defined walking path and mulch- gravel or ECM, water bar to move water into woods	Medium	Medium: $1000-$5000	Low: Property owner can accomplish with reference materials
7-15	Mulberry Rd Causeway	Directly into lake	Trail or Path	Surface Erosion-Gully, Surface Erosion-Rill, Surface Erosion-Sheet; Shoreline-Unstable Access; Other; Length of causeway sheet erosion with multiple small paths to water	15 x 10 ft	Steep	Vegetate Shoulder; Add rock steps for access	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
7-16	Mulberry Rd Causeway culvert	Directly into lake	Town Road*	Surface Erosion-Sheet, Surface Erosion-Rill; Culvert-Unstable inlet/outlet; Road Shoulder Erosion-Sheet, Road Shoulder Erosion-Rill; Soil-Bare; Shoreline-Inadequate Shoreline Vegetation	15 x 10 ft	Steep	Armor Inlet/Outlet; Mulch/Erosion Control Mix; Vegetate shoulder	Medium	Medium: $1000-$5000	Low: Property owner can accomplish with reference materials
8-00	Beaver Circle Rd surface	Ditch	Town Road*	Surface Erosion-Rill; Road Shoulder Erosion-Rill; Berm	200 ft	Moderate	Reshape (Crown), Remove Grader/Plow Berms	Low	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
8-01	Beaver Circle	Minimal Vegetation	Residential	Surface Erosion-Sheet	10 x 10 ft	Moderate	Add to Buffer	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
8-02	Beaver Circle	Minimal Vegetation	Residential	Surface Erosion-Rill	40 x 10 ft	Moderate	Install Runoff Diverters-Waterbar; Establish Buffer	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
8-03	Beaver Circle	Directly into lake	Residential	Surface Erosion-Sheet; Shoreline-Lack of Shoreline Vegetation	20 x 12 ft	Moderate	Vegetate; Establish Buffer, Reseed bare soil & thinning grass	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
8-04	Beaver Circle	Minimal Vegetation	Residential	Surface Erosion-Rill	50 x 10 ft	Moderate	Armor with Stone	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
8-06	Beaver Circle	Minimal Vegetation	Residential	Surface Erosion-Sheet	10 x 20 ft	Moderate	Infiltration Steps; Add to Buffer	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
8-06-2	Beaver Circle	Directly into lake	Residential	Surface Erosion-Gully; Shoreline-Erosion	100 x 15 ft	Steep	Install Runoff Diverters-Waterbar, Install Runoff Diverters-Rubber Razor	High	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
8-07	Beaver Circle	Minimal Vegetation	Residential	Surface Erosion-Sheet; Soil-Bare	30 x 30 ft	Flat	Reseed bare soil & thinning grass	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
8-08	Beaver Circle	Directly into lake	Residential	Surface Erosion-Sheet; Shoreline-Inadequate Shoreline Vegetation, Shoreline-Lack of Shoreline Vegetation	25 x 10 ft	Flat	Establish Buffer	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
9-01	Whitlow Way	Minimal Vegetation	Residential	Surface Erosion-Sheet; Shoreline-Inadequate Shoreline Vegetation, Shoreline-Erosion	30 x 25 ft	Steep	Add to Buffer, Reseed bare soil & thinning grass; Add gutters where there's no drip line and direct water to stable vegetation to the sides of the house. Coir logs on slope, fill in slope with shrubs. Re-seed bare soil next to house	Medium	Medium: $1000-$5000	Low: Property owner can accomplish with reference materials
9-02	Whitlow Way	Minimal Vegetation	Driveway*	Surface Erosion-Rill	100 x 20 ft	Moderate	Install Runoff Diverters-Open Top Culvert, Install Runoff Diverters-Waterbar; Add to Buffer; Mulch/Erosion Control Mix; Open top runoff diverter halfway down driveway with drain going underneath rock wall to stable vegetated area. Water bar at end of driveway and/or add a garden at the end of the driveway with a mulch berm before plantings to help slow and infiltrate runoff from driveway.	Medium	Medium: $1000-$5000	Low: Property owner can accomplish with reference materials
9-03	Lakeview Ave	Minimal Vegetation	Residential	Surface Erosion-Sheet; Shoreline-Inadequate Shoreline Vegetation	10 x 25 ft	Moderate	Add to Buffer; Rain Garden; Add rain garden at low spot next to rock and re-grade to direct runoff from the driveway	Low	Medium: $1000-$5000	Low: Property owner can accomplish with reference materials

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
							to the rain garden. Narrow beach/dock access area and plant around sides			
9-04	Lakeview Ave	Minimal Vegetation	Driveway*	Surface Erosion-Gully	150 x 15 ft	Moderate	Reshape (Crown), Install Runoff Diverters-Rubber Razor	High	Medium: $1000-$5000	Low: Property owner can accomplish with reference materials
9-05	Lakeview Ave	Minimal Vegetation	Residential	Surface Erosion-Rill; Shoreline-Inadequate Shoreline Vegetation, Shoreline-Unstable Access	55 x 30 ft	Steep	Stabilize Foot Path, Infiltration Steps; Add to Buffer; Remove landscape fabric and re-vegetate steep slope next to where steps are going, cover bare soil with ECM and allow natural vegetation to grow up around plantings on slope. Add runoff diverter halfway down driveway if possible (rubber razor) to direct water to lower rocky area next to driveway	High	Low: Less than $1000	Low: Property owner can accomplish with reference materials
9-06	Lakeview Ave	Directly into lake	Residential	Surface Erosion-Rill; Shoreline-Inadequate Shoreline Vegetation, Shoreline-Erosion	100 x 3 ft, 30 x 30 ft	Moderate	Add to Buffer; Mulch/Erosion Control Mix; Plant native vegetation along shoreline to help stabilize. ECM on bare soil near house could help infiltrate and slow water from that area	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
9-07	Lakeview Ave	Directly into lake	Residential	Surface Erosion-Rill; Shoreline-Inadequate Shoreline Vegetation, Shoreline-Lack of Shoreline Vegetation, Shoreline-Erosion	125 x 2 ft	Flat	Add to Buffer; Adding native shrubs near the shoreline will help stabilize the shoreline and will help keep geese off the lawn. 10 foot wide buffer of woody plants is ideal	High	Low: Less than $1000	Low: Property owner can accomplish with reference materials
9-08	Lakeview Ave	Directly into lake	Residential	Surface Erosion-Sheet, Surface Erosion-Rill; Soil-Bare	30 x 40 ft, 20 x 2 ft	Moderate	Add to Buffer; Mulch/Erosion Control Mix; Adding native shrubs along shoreline will help stabilize the shoreline and keep geese off the lawn. 10-foot or wider buffer of native plants is preferred	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
9-09	Culvert near electrical pole 32 on Cobb Dr	Stream	Town Road*	Culvert-Unstable inlet/outlet; Ditch-Rill Erosion	80 x 4 ft, 8 x 15 ft	Steep	Armor Inlet/Outlet, Enlarge; Armor with Stone, Install Check Dams, Install Turnouts	Medium	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
9-10	Lakeview Ave	Minimal Vegetation	Residential	Surface Erosion-Sheet; Soil-Bare	35 x 5 ft	Steep	Stabilize Foot Path, Infiltration Steps, Erosion Control Mulch	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
9-11	Lakeview Ave	Minimal Vegetation	Residential	Surface Erosion-Sheet; Shoreline-Inadequate Shoreline Vegetation	15 x 10 ft	Steep	Drywell @ gutter downspout; Add to Buffer; Plant above wall to help stabilize and filter water from above, drywell at gutter downspout or direct straight into lake to prevent erosion	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
9-12	Culvert drainage way off Lakeview Ave	Ditch	Town Road*	Ditch-Rill Erosion	60 x 3 ft	Steep	Armor with Stone, Install Sediment Pools, Remove debris/sediment; Change to riprap channel with sediment pool at bottom? Clean out sediment from ditch on upstream side of culvert	Medium	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
9-13	Lakeview Ave	Directly into lake	Residential	Surface Erosion-Rill	20 x 2 ft	Flat	Define Foot Path; Stabilize/define an access pathway and let area around stream re-vegetate	Low	Low: Less than $1000	Medium: Technical person should visit site & make recommendations
9-14	Lakeview Ave	Directly into lake	Residential	Surface Erosion-Sheet; Shoreline-Erosion, Shoreline-Inadequate Shoreline Vegetation	30 x 3 ft	Steep	Add to Buffer; Expand vegetated buffer where possible	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
9-15	Lakeview Ave	Minimal Vegetation	Town Road*	Road Shoulder Erosion-Gully, Road Shoulder Erosion-Sheet, Road Shoulder Erosion-Rill	30 x 15 ft	Steep	Vegetate Shoulder; Armor road shoulder	Medium	Medium: $1000-$5000	Low: Property owner can accomplish with reference materials
9-16	Ditch draining to stream crossing	Ditch	Town Road*	Ditch-Gully Erosion; Road Shoulder Erosion-Sheet	250 x 5 ft	Steep	Armor with Stone, Install Check Dams, Remove debris/sediment	High	Medium: $1000-$5000	Low: Property owner can accomplish with reference materials
9-30	Lakeview Ave	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare; Shoreline-Unstable Access, Shoreline-Lack of Shoreline Vegetation, Shoreline-Erosion	80 x 30 ft	Steep	Reseed bare soil & thinning grass, Establish Buffer; Install Runoff Diverter (waterbar); Plant and slow runoff over the bare bank.	Medium	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
9-31	Lakeview Ave	Minimal Vegetation	Town Road*	Surface Erosion-Sheet; Culvert-Unstable inlet/outlet, Culvert-Clogged	3 x 1 ft	Moderate	Remove Clog, Replace, Enlarge, Install Plunge Pool	Low	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
9-32	Lakeview Ave	Minimal Vegetation	Driveway*	Surface Erosion-Rill; Shoreline-Inadequate Shoreline Vegetation, Shoreline-Erosion	3 x 6 ft	Steep	Install Runoff Diverters-Open Top Culvert, Build Up	Medium	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
9-33	Lakeview Ave	Minimal Vegetation	Town Road*	Surface Erosion-Sheet; Road Shoulder Erosion-Sheet	115 x 8 ft	Steep	Install Ditch; Install ditching on far side and grade road away from lake.	Medium	High: Greater than $5000	High: Site requires engineered design
9-34	Lakeview Ave	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare; Shoreline-Lack of Shoreline Vegetation, Shoreline-Erosion	35 x 20 ft	Moderate	Define Foot Path, Erosion Control Mulch; Reseed bare soil & thinning grass, No Raking, Establish Buffer	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
9-35	Lakeview Ave	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare; Shoreline-Inadequate Shoreline Vegetation	25 x 30 ft	Steep	Define Foot Path, Stabilize Foot Path, Erosion Control Mulch; Add to Buffer, No Raking, Reseed bare soil & thinning grass; Mulch/Erosion Control Mix; Plant wherever possible	Medium	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
9-36	Lakeview Ave	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare	20 x 11 ft	Steep	Define Foot Path, Erosion Control Mulch; Install Runoff Diverter (waterbar), Mulch/Erosion Control Mix	Medium	Medium: $1000-$5000	Low: Property owner can accomplish with reference materials
9-37	Lakeview Ave	Directly into lake	Boat Access*	Shoreline-Erosion, Shoreline-Unstable Access, Shoreline-	10 x 1 ft	Steep	Add to Buffer, No Raking; Protect eroding edge of boat launch.	Medium	Medium: $1000-$5000	Medium: Technical person should visit site &

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
				Inadequate Shoreline Vegetation			Rock with additional plants.			make recommendations
9-38	Lakeview Ave by intersection with Mitchell Pond Rd	Ditch	Town Road*	Surface Erosion-Sheet, Surface Erosion-Rill; Culvert-Unstable inlet/outlet, Culvert-Clogged	5 x 5 ft	Moderate	Remove Clog, Armor Inlet/Outlet	Low	Medium: $1000-$5000	High: Site requires engineered design
9-39	Corner of Mitchell Pond Rd as it reaches Lakeview Ave	Ditch	Town Road*	Surface Erosion-Sheet, Surface Erosion-Rill; Culvert-Crushed Broken, Culvert-Clogged; Berm	2 x 10 ft	Moderate	Replace, Install Plunge Pool	Low	High: Greater than $5000	High: Site requires engineered design
9-40	Lakeview Ave	Directly into lake	Residential	Surface Erosion-Sheet; Shoreline-Unstable Access	20 x 8 ft	Steep	Stabilize Foot Path, Install Runoff Diverter (waterbar)	Medium	Medium: $1000-$5000	Low: Property owner can accomplish with reference materials
9-41	Lakeview Ave	Directly into lake	Residential	Surface Erosion-Sheet; Shoreline-Erosion, Shoreline-Unstable Access, Shoreline-Lack of Shoreline Vegetation	3 x 1 ft	Moderate	Establish Buffer; Ditch across also delivers soil to lake	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
9-42	Mitchell Pond Rd	Ditch	Town Road*	Surface Erosion-Sheet; Culvert-Misaligned; Ditch-Sheet Erosion	75 x 2 ft	Flat	Lower culvert entrance. Too high for ponding water. Water is also ponding below, which hinders erosion meeting the lake.	Low	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
10-01	Lakeview Ave	Ditch	Town Road*	Culvert-Clogged, Culvert-Larger Drainage Issues	5 x 20 ft	Flat	Remove Clog, Enlarge	Low	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
10-02	Lakeview Ave	Ditch	Town Road*	Culvert-Clogged, Culvert-Crushed Broken	4 x 3 ft	Flat	Remove Clog, Armor Inlet/Outlet	Low	Medium: $1000-$5000	High: Site requires engineered design

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
10-03	Lakeview Ave	Directly into lake	Residential	Surface Erosion-Rill; Shoreline-Lack of Shoreline Vegetation, Shoreline-Erosion	5 x 5 ft	Moderate	Add to Buffer; Rip Rap	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
10-04	Lakeview Ave	Directly into lake	Residential	Surface Erosion-Sheet; Culvert-Larger Drainage Issues; Soil-Bare; Shoreline-Erosion, Shoreline-Lack of Shoreline Vegetation, Shoreline-Inadequate Shoreline Vegetation	40 x 20 ft	Moderate	Install Plunge Pool, Assess Drainage Area; Establish Buffer, Reseed bare soil & thinning grass; Rain Garden, Infiltration Trench, Mulch/Erosion Control Mix; They have large washouts from the culvert from the hill. Have tried to reseed by shoreline. Could do natural rain garden along with stones potentially. She has a video	Medium	High: Greater than $5000	High: Site requires engineered design
10-05	Intersection of Dragon Rd and Lakeview Ave	Ditch	Town Road*	Culvert-Clogged, Culvert-Larger Drainage Issues, Culvert-Blown out	10 x 10 ft	Moderate	Remove Clog, Replace, Assess Drainage Area	Low	High: Greater than $5000	High: Site requires engineered design
10-06	Lakeview Ave	Minimal Vegetation	Residential	Surface Erosion-Sheet; Soil-Bare; Shoreline-Erosion, Shoreline-Lack of Shoreline Vegetation	8 x 40 ft	Moderate	Erosion Control Mulch; Establish Buffer, Reseed bare soil & thinning grass; Mulch/Erosion Control Mix	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
10-07	Dragon Rd, Lakefront	Directly into lake	Residential	Surface Erosion-Rill; Soil-Bare; Shoreline-Lack of Shoreline Vegetation, Shoreline-Erosion	5 x 10 ft	Moderate	Define Foot Path, Erosion Control Mulch; Establish Buffer, Reseed bare soil & thinning grass; Mulch/Erosion Control Mix; Continue	Medium	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
							stone steps further down			
10-08	Lakeview Ave	Ditch	Town Road*	Surface Erosion-Sheet; Ditch-Bank Failure	6 x 20 ft	Steep	Assess Drainage Area; Vegetate; Vegetate Shoulder	Low	Medium: $1000-$5000	High: Site requires engineered design
10-09	Waterfront lot in front of Lakeview Ave	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare; Shoreline-Erosion, Shoreline-Inadequate Shoreline Vegetation	10 x 20 ft	Moderate	Establish Buffer, Reseed bare soil & thinning grass	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
10-10	Lakeview Ave	Directly into lake	Residential	Surface Erosion-Sheet; Shoreline-Lack of Shoreline Vegetation, Shoreline-Erosion	6 x 15 ft	Moderate	Establish Buffer, Reseed bare soil & thinning grass; Mulch/Erosion Control Mix	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
10-11	Lakeview Ave	Ditch	Town Road*	Culvert-Blown out; Ditch-Bank Failure, Ditch-Sheet Erosion	4 x 30 ft	Steep	Assess Drainage Area; Vegetate Shoulder	Low	High: Greater than $5000	High: Site requires engineered design
10-12	Lakeview Ave	Directly into lake	Residential	Surface Erosion-Rill	3 x 30 ft	Steep	Stabilize Foot Path, Infiltration Steps; Install Runoff Diverter (waterbar)	Medium	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
10-13	Lakeview Ave	Directly into lake	Residential	Surface Erosion-Sheet; Road Shoulder Erosion-Sheet	6 x 30 ft	Moderate	Vegetate Shoulder, Add recycled asphalt	Low	Medium: $1000-$5000	Low: Property owner can accomplish with reference materials
10-14	Lakeview Ave	Directly into lake	Residential	Shoreline-Lack of Shoreline Vegetation, Shoreline-Erosion	10 x 30 ft	Moderate	Establish Buffer; Mulch/Erosion Control Mix; Could get rid of gravel and replace with mulch and revegetate	High	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
10-15	Lakeview Ave	Directly into lake	Residential	Surface Erosion-Rill; Soil-Bare; Shoreline-Erosion, Shoreline-Lack of Shoreline Vegetation	4 x 6 ft	Moderate	Add to Buffer; Mulch/Erosion Control Mix	Low	Low: Less than $1000	Low: Property owner can accomplish with

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
										reference materials
10-16	Lakeview Ave	Ditch	Driveway*	Ditch-Rill Erosion; Road Shoulder Erosion-Rill	2 x 5 ft	Moderate	Vegetate; Vegetate Shoulder	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
10-17	Lakeview Ave	Ditch	Driveway*	Culvert-Unstable inlet/outlet, Culvert-Crushed Broken, Culvert-Larger Drainage Issues	3 x 8 ft	Flat	Replace, Assess Drainage Area	Low	High: Greater than $5000	High: Site requires engineered design
10-18	Lakeview Ave	Ditch	Town Road*	Culvert-Crushed Broken, Culvert-Misaligned, Culvert-Larger Drainage Issues	5 x 10 ft	Flat	Assess Drainage Area, Realign, Replace; Vegetate	Low	High: Greater than $5000	High: Site requires engineered design
10-19	Lakeview Ave	Ditch	Town Road*	Surface Erosion-Sheet	15 x 50 ft	Flat	Remove Grader/Plow Berms, Reshape (Crown), Add gravel	Low	High: Greater than $5000	High: Site requires engineered design
10-20	Lakeview Ave at bridge over stream	Stream	Town Road*	Ditch-Bank Failure; Road Shoulder Erosion-Gully	3 x 4 ft	Steep	Add gravel, Reshape (Crown), Vegetate Shoulder	Medium	Medium: $1000-$5000	High: Site requires engineered design
10-21	Lakeview Ave past bridge before hill	Stream	Town Road*	Culvert-Unstable inlet/outlet; Ditch-Rill Erosion	3 x 2 ft	Steep	Armor Inlet/Outlet; Vegetate Shoulder, Reshape (Crown), Build Up	Low	Medium: $1000-$5000	High: Site requires engineered design
10-22	Lakeview Ave	Minimal Vegetation	Driveway*	Surface Erosion-Rill	3 x 10 ft	Moderate	Add gravel, Vegetate Shoulder, Install Runoff Diverters-Waterbar, Remove Grader/Plow Berms, Build Up	Medium	Medium: $1000-$5000	Low: Property owner can accomplish with reference materials
10-23	Dragon Rd	Directly into lake	Town Road*	Ditch-Sheet Erosion	25 ft by .1 mi	Moderate	Install Turnouts; Build Up, Reshape (Crown), Remove Grader/Plow Berms, Install Runoff Diverters-Waterbar	Medium	High: Greater than $5000	High: Site requires engineered design

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
10-30	Lakeview Ave	Ditch	Town Road*	Surface Erosion-Rill; Culvert-Unstable inlet/outlet, Culvert-Clogged, Culvert-Larger Drainage Issues; Ditch-Sheet Erosion; Road Shoulder Erosion-Sheet	700 x 25 ft	Steep	Remove Clog; Armor with Stone, Reshape Ditch; Reshape (Crown), Remove Grader/Plow Berms	High	High: Greater than $5000	Medium: Technical person should visit site & make recommendations
11-01	Point Rd	Directly into lake	Residential	Surface Erosion-Rill, Surface Erosion-Sheet; Shoreline-Lack of Shoreline Vegetation, Shoreline-Inadequate Shoreline Vegetation, Shoreline-Erosion	50 x 20 ft	Moderate	Establish Buffer, Reseed bare soil & thinning grass; Wash out beach area	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
11-02	Point Rd	Directly into lake	Residential	Surface Erosion-Sheet; Shoreline-Lack of Shoreline Vegetation, Shoreline-Inadequate Shoreline Vegetation	10 x 20 ft	Flat	Silt Fence/EC Berms; Establish Buffer, Add to Buffer	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
11-03	Point Rd	Minimal Vegetation	Residential	Surface Erosion-Sheet	2 x 10 ft	Flat	Rip Rap; Armor lawn edge with fabric / rip rap	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
11-04	Lakeview Ave- Rd surface	Minimal Vegetation	Town Road*	Surface Erosion-Gully; Ditch-Gully Erosion; Road Shoulder Erosion-Gully	80 x 12 ft	Moderate	Install Runoff Diverters-Waterbar	Medium	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
11-05	Lakeview Ave	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare	10 x 30 ft	Moderate	Stabilize Foot Path, Infiltration Steps	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
11-06	Lakeview Ave	Minimal Vegetation	Residential	Surface Erosion-Sheet; Soil-Bare	15 x 30 ft	Flat	Establish Buffer, Reseed bare soil & thinning grass; At shoreline	Low	Low: Less than $1000	Low: Property owner can accomplish with

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
										reference materials
11-07	Lakeview Ave	Ditch	Town Road*	Culvert-Unstable inlet/outlet	Road 100 ft	Moderate	Armor Inlet/Outlet, Install Plunge Pool	Medium	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
11-08	Peakes Hill Rd	Minimal Vegetation	Residential	Surface Erosion-Gully; Other; Parking lot erosion	30 x 20 ft	Steep	Rip Rap; Rip rap slope toward stream	Medium	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
11-09	Hurd Point Rd	Minimal Vegetation	Residential	Shoreline-Lack of Shoreline Vegetation, Shoreline-Inadequate Shoreline Vegetation	20 x 10 ft	Moderate	Establish Buffer, Reseed bare soil & thinning grass	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
12-01	Hurd Point Rd	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare; Agriculture-Manure Washing off Site	20 x 20 ft	Flat	Define Foot Path, Stabilize Foot Path, Infiltration Steps, Erosion Control Mulch; Add to Buffer	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
12-02	Hurd Point Rd	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare	12 x 20 ft	Flat	Reseed bare soil & thinning grass; Turf reinforcement and then vegetate	Low	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
12-03	Hurd Point Rd	Minimal Vegetation	Residential	Surface Erosion-Sheet; Shoreline-Erosion	4 x 5 ft	Flat	Replace outlet pipe with an option that does not outlet straight into lake (French drain or infiltration garden)	Low	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations
12-05	Hurd Point Rd	Directly into lake	Residential	Surface Erosion-Gully; Soil-Bare; Shoreline-Erosion, Shoreline-Undercut, Shoreline-Inadequate Shoreline Vegetation; Other;	16 x 6 ft	Flat	Establish Buffer, Add to Buffer; Move pipe outlet further away from lake, add infiltration methods; reinforce access to lake with	Medium	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
				Pesticide application sign			erosion control measures where docks are slid in and out			
12-07	Hurd Point Rd	Minimal Vegetation	Residential	Surface Erosion-Sheet; Soil-Winter Sand; Shoreline-Lack of Shoreline Vegetation, Shoreline-Inadequate Shoreline Vegetation	25 x 45 ft	Moderate	Establish Buffer, Add to Buffer; Mulch/Erosion Control Mix	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
12-08	Hurd Point Rd	Minimal Vegetation	Driveway*	Surface Erosion-Sheet, Surface Erosion-Rill; Soil-Bare; Shoreline-Unstable Access	15 x 130 ft	Moderate	Reshape (Crown), Add gravel, Install Runoff Diverters-Broad-based Dip; Add to Buffer, Reseed bare soil & thinning grass	Medium	High: Greater than $5000	Medium: Technical person should visit site & make recommendations
12-09	Hurd Point Rd	Directly into lake	Residential	Shoreline-Undercut, Shoreline-Lack of Shoreline Vegetation, Shoreline-Inadequate Shoreline Vegetation, Shoreline-Erosion	10 x 20 ft	Flat	Establish Buffer; Mulch/Erosion Control Mix	High	Low: Less than $1000	Low: Property owner can accomplish with reference materials
12-10	Hurd Point Rd	Minimal Vegetation	Residential	Surface Erosion-Rill; Soil-Bare	12 x 70 ft	Flat	Reseed bare soil & thinning grass; Septic Inspection	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
12-11	Hurd Point Rd	Directly into lake	Boat Access*	Surface Erosion-Sheet; Soil-Bare	12 x 6 ft	Flat	Stabilize Foot Path, Erosion Control Mulch; Reseed bare soil & thinning grass; Enclose fire pit or move away from lake	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
12-12	Hurd Point Rd	Directly into lake	Residential	Surface Erosion-Sheet; Shoreline-Erosion	20 x 50 ft	Moderate	Infiltration Steps; Mulch/Erosion Control Mix	Medium	Medium: $1000-$5000	Medium: Technical person should visit site & make recommendations

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
12-13	Hurd Point Rd	Directly into lake	Residential	Surface Erosion-Sheet	35 x 5 ft	Moderate	Infiltration Steps, Stabilize Foot Path; Add to Buffer	Medium	Medium: $1000-$5000	Low: Property owner can accomplish with reference materials
12-14	Hurd Point Rd	Directly into lake	Driveway*	Surface Erosion-Sheet; Soil-Bare	125 x 15 ft	Moderate	Install Runoff Diverters-Rubber Razor; Define Foot Path, Install Runoff Diverter (waterbar), Erosion Control Mulch; Establish Buffer, Add to Buffer, Reseed bare soil & thinning grass	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
13-01	Murray Rd	Directly into lake	Residential	Surface Erosion-Gully; Soil-Bare	100 x 3 ft	Moderate	Install Turnouts; Establish Buffer, Add to Buffer, Reseed bare soil & thinning grass	High	Low: Less than $1000	Low: Property owner can accomplish with reference materials
13-02	Murray Rd	Directly into lake	Private Road*	Surface Erosion-Gully, Surface Erosion-Rill	10 x 30 ft	Moderate	Reshape (Crown), Install Runoff Diverters-Broad-based Dip, Install Runoff Diverters-Open Top Culvert, Install Runoff Diverters-Rubber Razor, Install Runoff Diverters-Waterbar, Install Catch Basin	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
13-03	Murray Rd	Minimal Vegetation	Private Road*	Surface Erosion-Gully	50 x 7 ft	Steep	Reshape (Crown), Vegetate Shoulder, Install Runoff Diverters-Broad-based Dip, Install Runoff Diverters-Open Top Culvert, Install Runoff Diverters-Rubber Razor, Install Runoff Diverters-Waterbar	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
13-04	Murry Rd	Directly into lake	Residential	Surface Erosion-Gully	30 x 4 ft	Moderate	Install Plunge Pool	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
13-05	Murray Rd	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare	20 x 20 ft	Steep	Establish Buffer, Add to Buffer, Reseed bare soil & thinning grass	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
13-06	Murray Rd	Directly into lake	Residential	Surface Erosion-Gully; Roof Runoff Erosion	30 x 2 ft	Steep	Drywell @ gutter downspout, Rain Barrel; Reseed bare soil & thinning grass; Remove trench and replace with drywell.	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
13-07	Murray Rd	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare, Soil-Uncovered Pile	10 x 3 ft	Moderate	Establish Buffer, Add to Buffer, Reseed bare soil & thinning grass; Construction needs to be covered and a silt fence should be added.	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
13-08	Murray Rd	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare	10 x 10 ft	Flat	Erosion Control Mulch; Establish Buffer, Reseed bare soil & thinning grass, Add to Buffer; Mulch/Erosion Control Mix	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
13-09	Murray Rd	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare	30 x 30 ft	Moderate	Define Foot Path, Erosion Control Mulch; Establish Buffer, Add to Buffer, Reseed bare soil & thinning grass, No Raking; Erosion control mulch under dock and boat storage	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
13-10	Murray Rd	Minimal Vegetation	Residential	Surface Erosion-Sheet, Surface Erosion-Gully	30 x 6 ft	Moderate	Erosion Control Mulch, Define Foot Path, Stabilize Foot Path; Establish Buffer, Add to Buffer, Reseed bare soil & thinning grass, No Raking; Advise to not dispose of firepit char near lakeshore.	Medium	Low: Less than $1000	Low: Property owner can accomplish with reference materials
13-11	Murray Rd	Directly into lake	Residential	Surface Erosion-Rill; Soil-Bare	40 x 10 ft	Steep	Install Runoff Diverter (waterbar), Erosion Control Mulch, Infiltration Steps, Stabilize Foot Path, Define Foot Path; Establish Buffer, Add to Buffer, No Raking, Reseed bare soil & thinning grass; Used as dock launch, pretty steep and well used.	High	Low: Less than $1000	Low: Property owner can accomplish with reference materials
13-12	Murray Rd	Directly into lake	Residential	Shoreline-Unstable Access, Shoreline-Undercut	5 x 4 ft	Moderate	Larger stones along shoreline where boat ramp is.	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
13-13	Narrows Dr	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare	30 x 4 ft	Steep	Infiltration Steps, Erosion Control Mulch, Stabilize Foot Path, Define Foot Path; Add to Buffer, No Raking, Reseed bare soil & thinning grass	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
13-14	Fitts Mountain Rd	Directly into lake	Boat Access*	Surface Erosion-Rill	50 x 10 ft	Moderate	Install Runoff Diverters-Broad-based Dip, Install Runoff Diverters-Open Top Culvert, Install Runoff Diverters-Rubber	High	Low: Less than $1000	Low: Property owner can accomplish with reference materials

Site	Location	Flow into Lake via	Land Use	All Problems	Eroded Area	Slope	All Recommendations	Impact R5ating	Cost	Technical Level
							Razor, Install Runoff Diverters-Waterbar, Reshape (Crown)			
13-15	Fitts Mountain Rd	Directly into lake	Residential	Surface Erosion-Sheet; Soil-Bare	10 x 10 ft	Moderate	Establish Buffer, Add to Buffer, No Raking, Reseed bare soil & thinning grass	Low	Low: Less than $1000	Low: Property owner can accomplish with reference materials
13-16	Fitts Mountain Rd	Minimal Vegetation	Residential	Surface Erosion-Gully	40 x 5 ft	Moderate	Reshape (Crown), Install Runoff Diverters-Broad-based Dip, Install Runoff Diverters-Open Top Culvert, Install Runoff Diverters-Rubber Razor, Install Runoff Diverters-Waterbar; Establish Buffer, Add to Buffer, Reseed bare soil & thinning grass, No Raking	High	Low: Less than $1000	Low: Property owner can accomplish with reference materials