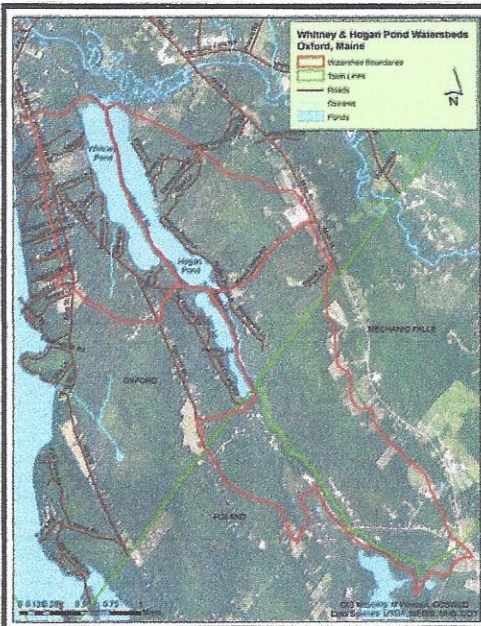


Hogan-Whitney Ponds Watershed Protection Project— Phase I (2019-2020) Final Project Summary

The Hogan/Whitney Ponds Watershed Protection Project, Phase I began in January of 2019. Over the next two years project partners worked very hard to accomplish the goal of reducing the amount of soil erosion, a significant source of phosphorous, that washes into Hogan and Whitney Ponds. The project ended in December of 2020 and has exceeded most of its goals. A huge amount of credit goes to the Hogan Whitney Pond Association (HWP) representative Bruce Wilson, who contributed enormous amounts of time and energy reaching out to the watershed community to increase awareness of the project and providing assistance in getting the work coordinated.

Besides HWP, partners included Maine DEP, Oxford County Soil & Water Conservation District (Project Manager), the Androscoggin River Watershed Council, Two Lakes Camping Area, and the Town of Oxford. Norway Savings Bank and the NE Grassroots Environmental Fund also contributed cash match toward supplies and materials such as native plants that were provided for use in shoreline buffer planting projects. HWP and other project partners provided over \$44,000 of in-kind volunteer and material contributions, including arranging for a supply of Erosion Control Mulch (ECM) to be available to residents wanting to protect and stabilize soil on their property.



The project, which was funded in part by a \$50,100 grant from the US Environmental Protection Agency (EPA) through Section 319 of the Clean Water Act, provided cost-share funding to address many of the highest non-point source (NPS) pollution problem sites identified in the Hogan/Whitney Ponds Watershed Survey completed in 2017. NPS pollution is primarily eroded soil sediment transported into the lake by stormwater runoff. Phosphorus, a plant nutrient that attaches to soil particles as a “hitch hiker”, is common on land but naturally limited in lakes. If too much phosphorus is washed into a lake, it fertilizes an explosive growth of algae that can transform a clear, blue lake into a slimy green mess. Once a bloom happens, it can ruin water quality, wildlife habitat, swimming, fishing, and boating. Severe blooms can even reduce shoreline property values. This brochure summarizes project accomplishments and applied “best management practices” (BMPs) to minimize NPS pollution.

Summary of Project Accomplishments

- 15 Larger Scale NPS Cost-sharing Erosion Control projects** that reduced soil sediments entering Hogan/Whitney Ponds by an estimated **131 tons each year**; (Several projects are described on pages 2 and 3);
- 25 Technical Assistance** visits provided to private property owners around Hogan/Whitney Ponds to give them recommendations for controlling erosion on their land;
- 7 Residential Matching Grants up to \$350** were awarded to property owners to address smaller scale residential erosion problems by installing “best management practices” such as roof dripline trenches, erosion control mulch and shoreline plantings;
- Two Educational Workshops** were presented to local residents in the summer of 2020. “Planting Greenery for Cleaner Ponds” covered information on planting shoreline buffers, and “Gravel Road Maintenance and BMPs” explored ways to prevent gravel road runoff from getting into the pond.
- Outreach:** News articles, web postings, a mid-project highlights brochure, presentations at the Oxford Selectmen’s Meeting and Hogan Whitney Pond Annual Meeting, informed the community about project activities and progress. Two educational outreach signs about ways to protect the ponds.

Non-Point Source Project Highlights

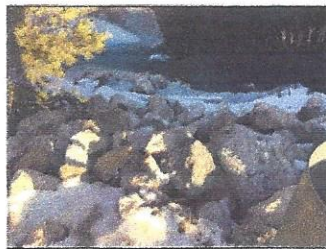
Rabbit Valley Road BMPs

Problem sites on Rabbit Valley Road were contributing the largest amount of sediment of any location in the watershed. This was the first priority for the project to tackle. The stream crossings at Winter Brook and Green Bank Brook presented the biggest challenges. The unstable and eroding banks on the inlet and outlet of the culverts were contributing over 105 tons of sediment, requiring lots of rip rap to stabilize the banks. Road ditches were also in dire need of improvement. The ditches were re-shaped, lined with geotextile fabric, a turnout reconstructed and armored with rip-rap (large angular rock). The Town of Oxford Highway crew did a great job!

Before Photos (Left to right): Winter Brook, Below Stagecoach Lane, End of Hogan Lane, and Green Bank Brook.



After Photos

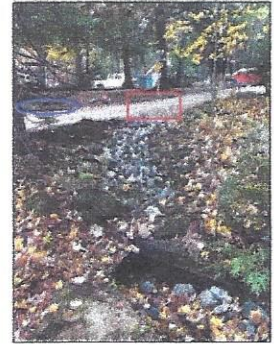


Two Lakes Camping Area Improvements

Three sites in the Two Lakes Camping Area received cost-share funding to address their boat launch area, an unstable drainage area sending sediment to a stream, as well as addressing some runoff issues from their parking area. Sediment loss remediated in the camping area was more than 16 tons/year.



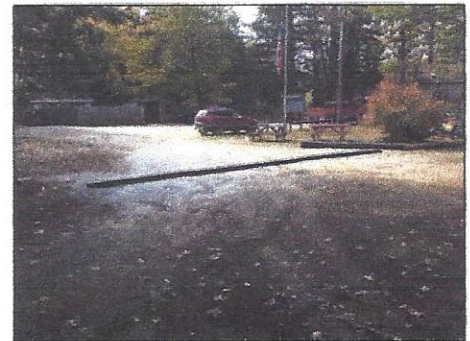
Before (Left) Sediment from the road and parking area above chokes a drainage area in Cabin #45 site. The sediment was removed and the area lined with geotextile and riprap to make a better infiltration area and capture sediment before reaching a stream.



After (Right) A "broad based dip" and riprap armored turnout from the road have been installed to divert flows into the improved sediment pool at Cabin #45



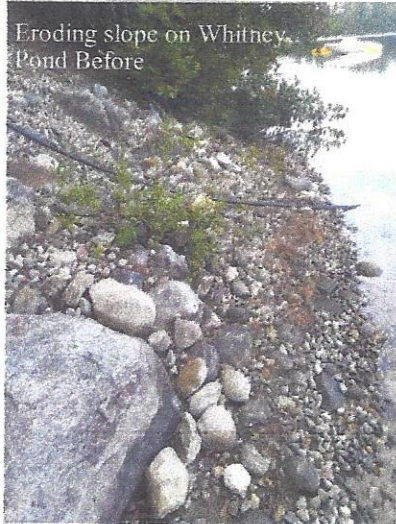
Before (Left) A huge amount of storm water often washes over this area from right to left, adding considerably to erosion woes in front of the office and eventually washing down to Hogan Pond.



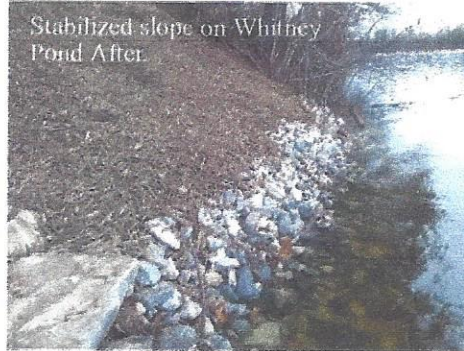
After (Right) The rubber razor diverter intercepts storm water flows across an area known as "Skunk Crossing".

Residential NPS Sites

While most residential erosion issues were small there were several that were contributing very large amounts of sediment to the Ponds and required such extensive work that they qualified as large NPS sites. The combined sediment prevented from reaching the ponds is estimated at 8.8 tons/year.



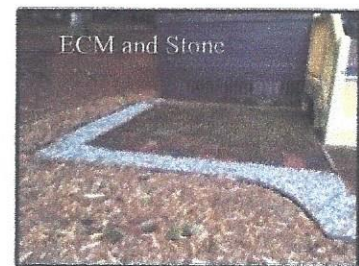
An eroding slope (left and below) stabilized with riprap along the base and Erosion Control Mulch. A boat access (right) had its sides reshaped, planted with vegetation, and was protected with crushed stone. A roof dripline (lower right) was stabilized with a dripline trench.



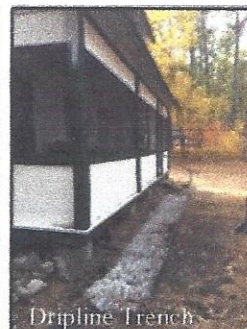
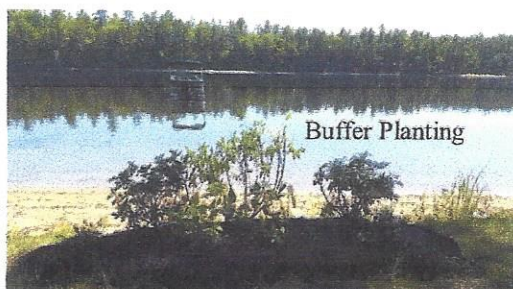
Residential Matching Grant Improvements

Most of the erosion problems from stormwater runoff identified during the 2017 Watershed Survey were on residential properties and private boat access areas. Several properties were addressed with improvements that protected and stabilized soils, such as installing clean crushed stone, or erosion control mulch (ECM). One property owner installed new infiltration trenches under the roof dripline which allow roof runoff to absorb into the ground through the gravel. A Whitney Lane property owner stabilized their boat access with ECM to reduce erosion. Another installed infiltration steps to replace a set of eroding stairs to the pond.

Shoreline buffers, planted on over a half dozen properties, help to absorb runoff and filter phosphorous before it reaches the pond where it could feed algae growth. Bare soils and pathways protected with Erosion Control Mix mulch, and runoff diverters were other effective methods used to reduce erosion. These landowners received Residential Matching Grants of up to \$350 to help defray expenses.



Special thanks to the Taymans, the Andrews, the MacDonalds, the Leavitts, the Carreras, the Mayers, and Dunn's Camps for all their efforts.



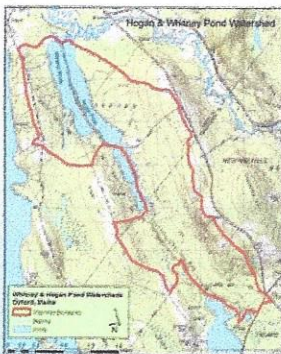
Maintenance Is Critical...

Many of the erosion control measures discussed in this brochure will require maintenance so they continue to prevent erosion in future years. Periodic maintenance is more cost-effective than fixing a site after a major erosion event occurs. Road and driveway maintenance includes: Periodically cleaning out plunge pools, sediment basins and ditches, unplugging clogged culverts; maintaining the proper crown on gravel roads and driveways; occasional cleaning out of sediment from behind rubber razor bars; and watering and monitoring buffer plantings to ensure they remain healthy. This will help them continue to protect Hogan and Whitney Ponds for many years to come.



Oxford County SWCD Engineer, Ross Cudlitz (left) providing consultation on the Two Lakes Camping Area Sites, and Bruce Wilson, of HWP, taking detailed notes.

Protecting Hogan and Whitney Ponds by Protecting our Watershed



What is the "watershed"?
The watershed is all the land area that drains to Hogan and Whitney Ponds. Everything that happens within the watershed can affect the water quality of the ponds. Non-Point Source (NPS) pollution in the form of stormwater runoff is the biggest threat to water quality. Runoff carries nutrients, like phosphorus, which can feed algae blooms, like the one pictured below.



What can we do to protect it?

Minimize harm from stormwater runoff.

All rain that falls in the watershed, including rain that runs off your roof, yard and driveway, can eventually end up in Hogan and Whitney Pond by flowing over land and into streams and road ditches.

Here Are Six Things You Can Do:

1) **Preserve, or plant, a shoreline vegetation "buffer."** The buffer reduces soil erosion and absorbs nutrients like phosphorus. An ideal buffer stretches across the entire shore, and contains several kinds of vegetation like ground covers, perennials and shrubs.



2) **Avoid using lawn fertilizers.** Most soils in Maine naturally have enough phosphorus to keep a lawn lush and green so fertilizers are seldom needed. Fertilizers can wash the into ponds and water bodies causing harmful algae blooms.



Use a soil test to determine if you really need a fertilizer. If fertilizer is needed, always use one that is "P-free". Just look for the one with the "zero" in the middle.

3) **Divert runoff off your gravel driveway.** It can contain eroded soil as well as small amounts of gas, oil and coolant. Prevent runoff from your driveway from reaching the pond by installing a rubber razor, box culvert or waterbar across the driveway to divert runoff into stable ditches or vegetation.



4) **Protect soil from erosion by mulching gardens and protecting roof driplines with stone.** Spreading out or diverting stormwater runoff from your roof to a raingarden is another great idea. Contact Oxford County Soil & Water Conservation Districts for free advice and technical assistance if you need it.



5) **Stabilize pathways with stone or mulch.** Pathways to the pond are very susceptible to erosion. On steeper paths install infiltration steps to slow and absorb runoff, or waterbars to divert runoff into stable vegetation.



6) **Maintain your septic system.** Septic failures can have devastating effects on ponds. Get septic systems inspected to make sure they function properly and get septic tanks pumped at least every 5-6 years. Be aware of signs of failure like rotten smells and oozing. Your septic pumpout can recommend a schedule if you only use it seasonally.



Remember, every little thing you can do to help protect Hogan and Whitney Ponds will help keep them clean for swimming, fishing and boating for many years to come.



The Hogan and Whitney Ponds Watershed Protection Plan (2016) identifies conservation practices and provides implementation guidance as described in the plan. The plan was developed in part with funding from the U.S. Department of Environment and Natural Resources under Section 319 of the Clean Water Act. Section 319 funding is administered by the Maine Department of Environmental Protection (DEP) in partnership with the SWCD in order to protect and reduce water pollution in the area.



Signs like the one to the left were installed on King St and Hogan Lane to show some ways property owners can help protect the ponds. Fact Sheets with information on some of the practices that appear on the signs can be found at the Maine DEP website:
<https://www.maine.gov/dep/land/watershed/materials.html>

For more information on the Hogan/Whitney Ponds Watershed Contact:
Bruce Wilson, HWP, member
bruce.wilson8@verizon.net

For more information about technical assistance and BMPs Contact:
Oxford County Soil & Water Conservation District,
Michele Windsor, Project Manager
oxfordcountyswcd@outlook.com

Funding for this project, in part, was provided by the U.S. Environmental Protection Agency under Section 319 of the Clean Water Act. Section 319 grants are administered by the Maine Department of Environmental Protection in partnership with EPA.

This project would not have been possible without the help of our valued partners!

Hogan Whitney Pond Association
Oxford County SWCD
Androscoggin River Watershed Council
The Town of Oxford
Two Lakes Camping Area
Norway Savings Bank
The New England Grassroots Environmental Fund
Maine Dept of Environmental Protection
And the many Hogan/Whitney Ponds Watershed Residents who participated.