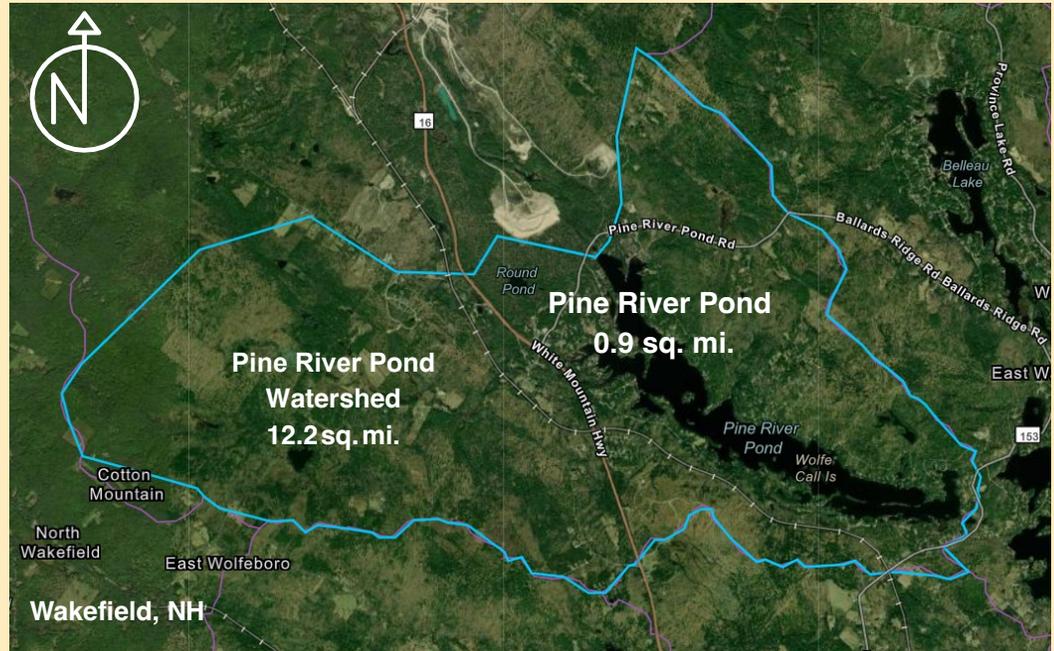


Pine River Pond Watershed Survey Summary Fact Sheet

BACKGROUND

The Pine River Pond watershed (all land that drains to Pine River Pond) covers 12.2 square miles in the town of Wakefield.

Pine River Pond's water quality is above average, according to the NH Department of Environmental Services (DES), but is threatened by polluted runoff.



- Soil erosion, in particular, is the single greatest source of pollution in Pine River Pond.
- Soil contains nutrients such as phosphorus which promotes algae and cyanobacteria blooms when it enters a lake in large quantities. As algae die off, the resulting microbial activity depletes oxygen levels in the water causing diebacks of aquatic animals such as fish.
- Blooms decrease water quality and some species of cyanobacteria can produce harmful toxins. Degrading water quality is often correlated with decreases in property value.

WATERSHED SURVEY

In May 2021, a team of 30 local volunteers from the PRP community along with technical staff from the Acton Wakefield Watersheds Alliance, NHDES, Maine DEP, and NH LAKES conducted a survey of the watershed and identified all erosion sources that contribute polluted runoff to Pine River Pond. Teams documented erosion sources from roads, properties, driveways, and shorelines using digital data collection methods. Erosion control recommendations were determined for each site and were rated based on the severity of impact to lake water quality as well as cost and scope of remediation. Results and recommendations were compiled in the Pine River Pond Watershed Survey Report.

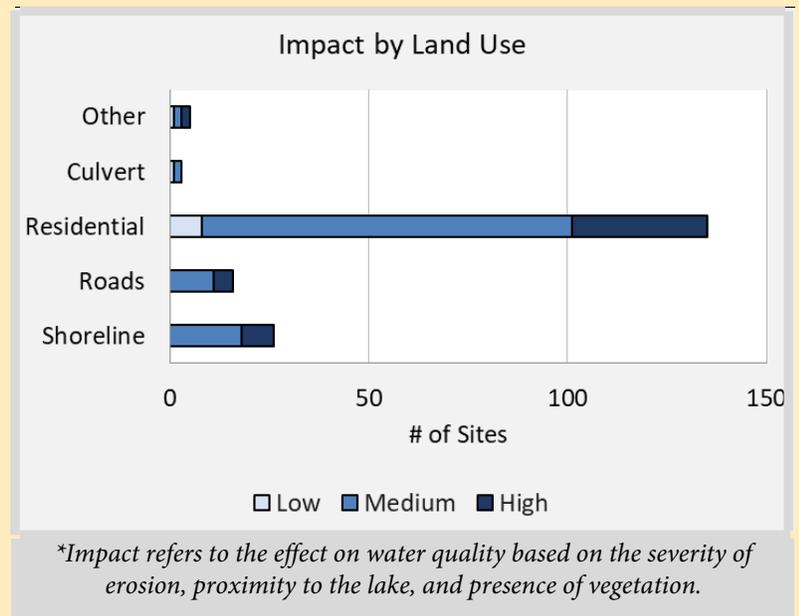
Example of Identified Erosion:



KEY SURVEY RESULTS

Volunteers and technical staff identified 185 sites in the Pine River Pond Watershed that are impacting or have the potential to impact water quality.

- 135 sites were on residential properties.
- 16 sites were on public or private roads.
- Most erosion sites have moderate water quality impacts and can be remediated by homeowners using DIY methods or with professional landscaping.
- 49 sites were deemed “high impact. Of these sites, seven are cost-prohibitive for individual residents or road associations, and would require grant funding.
- The worst runoff is occurring on dirt camp roads around the lake. These sites will be a top priority for grant funding. Some matching funds are required from road associations to complete a grant-funded project.



Each erosion site was run through a model developed by the EPA to calculate the annual phosphorus reduction that would be associated with remediation. As projects are completed, this overall phosphorus reduction will add up to a significant amount which will bring PRP’s excess nutrient levels closer to their natural state. This should, in time, reduce the bloom rate in the lake.

NEXT STEPS

Create a watershed-based management plan for the Pine River Pond Watershed.

Apply for grants to help landowners, road associations, and the town fix major erosion identified in the survey.

Mail letters to landowners with identified erosion and provide recommendations to remediate erosion on their property.

Landowners can contact AWWA for a free site visit and receive a site-specific remediation design.

Landowners can then apply to have this design installed by AWWA’s Youth Conservation Corps.

FOR MORE INFORMATION about this survey, or to find out if your property has identified erosion, contact:

AWWA at

info@awwatersheds.org

PRP Association at

President@pineriverpond.org

