



Crescent Lake Watershed Survey Summary Report

Background

Crescent Lake has above average water quality, which has been monitored since as early as 1974 (Lake Stewards of Maine). However, it has been identified to be sensitive to non-point source (NPS) pollution caused by development, agriculture, and other forms of human activity in the watershed.

The greatest threat to Crescent Lake's water quality is phosphorus, which is carried into the lake attached to eroded soil particles in stormwater runoff. Too much phosphorus feeds algae growth, which can lead to algal blooms. A bloom can be both a nuisance to recreating and cause degradation in water quality. To identify sources of erosion and protect the water quality of the lake, a watershed survey was carried out. The survey identifies problems, provides recommendations to fix soil erosion, and raises public awareness on how to protect the lake.

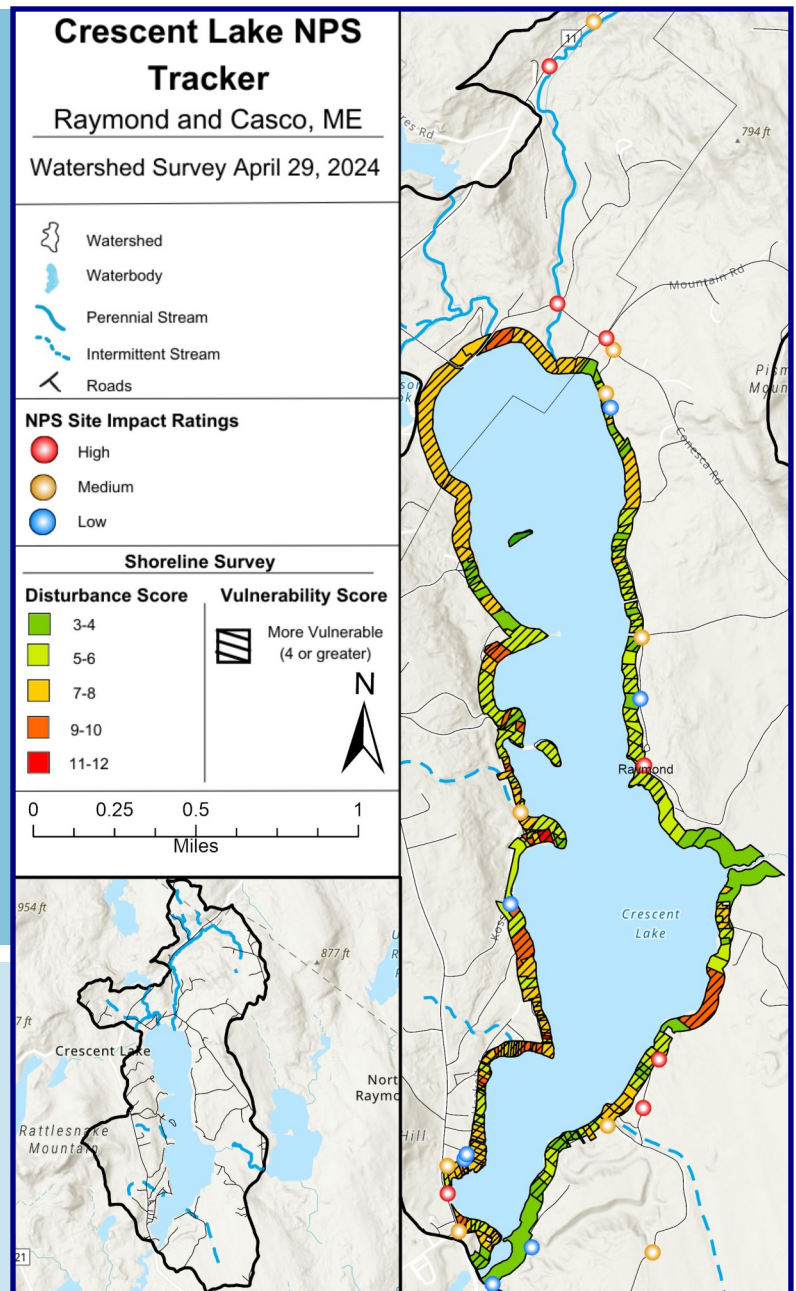
Watershed Survey

The Crescent Lake Watershed Association (CLWA) partnered with FB Environmental and ME DEP to conduct a watershed survey on April 29th, 2024. The survey was conducted in two parts, two teams surveyed the shoreline by boat to assess the disturbance and vulnerability of the shoreline area.

Another two teams drove the watershed to identify sources of NPS erosion from roads. When a site was found to be contributing polluted runoff into the lake, it was documented.

Documentation included: description of the condition of the shoreline, location, land use type (driveway, town road, etc), problem, size of the area, suggested Best Management Practice (solution), slope, and photos.

The watershed survey was voluntary and was not for enforcement purposes. The goal was to gather data to make informed decisions in how to continue to protect the lake's water quality.

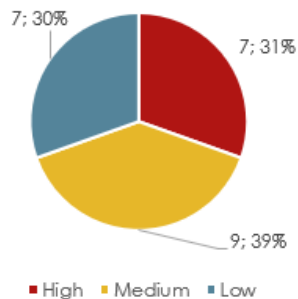


Key Survey Results

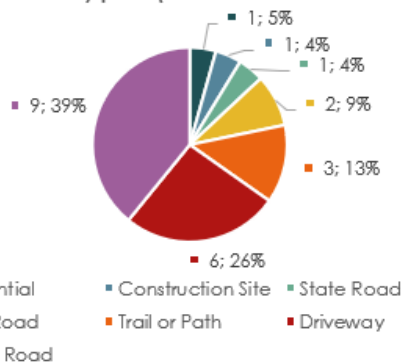
Twenty-three sites were identified during the watershed survey that are contributing polluted runoff to Crescent Lake. The sites were ranked on impact to the water quality based on the type of erosion, the size of the area, and if there was any buffer or filtration of the runoff. Seven sites were high impact, 9 were medium impact and 7 were low impact. The majority of the sites (39%) were on private roads, followed by driveways (26%). Erosion sites were identified all around the watershed, occurring on a total of 7 different types of land uses.

The shoreline survey assessed disturbance to the shoreline by evaluating vegetated buffer, bare soil, extent of shoreline erosion, proximity of structures to the lake, and slope of the shoreline area. The sum of these scores generated a “Shoreline Disturbance Score” and a “Shoreline Vulnerability Score”. 203 parcels were surveyed, and of those 92 properties were identified as having conditions detrimental to water quality, a shoreline disturbance score above 7. This data will be used to prioritize areas of shoreline for remediation.

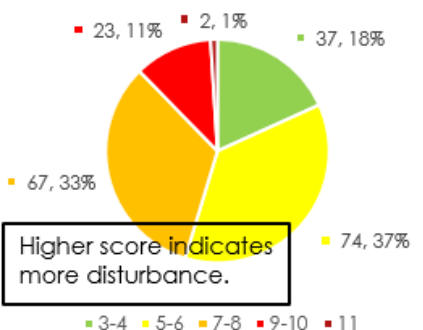
Impact to Water Quality
(Watershed Survey)



Land Use Type (Watershed Survey)



Shoreline Disturbance
Score (Shoreline Survey)



Next Steps

- More detailed information will be available in the “Crescent Lake Watershed Survey Report” which will be available on the CLWA website.
- Landowners will be notified by mail if their site was identified as contributing polluted runoff into the lake. The notification will have a description of the problem, recommended solutions, and a list of possible resources such as grant funding.
- Continue to promote water quality monitoring programs and ongoing work with Lake Stewards of Maine to understand trends in water quality.

Resources

- **Best Management Practices for Homeowner** factsheets can be found here: <https://www.maine.gov/dep/land/watershed/materials.html>
- To learn more about **soil erosion** (nonpoint source pollution) visit the Maine DEP website <https://www.maine.gov/dep/land/watershed/nps/index.html>
- Maine DEP Watershed Management staff and Cumberland Soil and Water Conservation District can provide technical assistance.

Special Thanks to our dedicated watershed survey planners and volunteers from CLWA: Sallie Worcester, Charlie Bradbury, Russ Hutchinson and Ray Bersch.