

LAKE PLACID NEWS

ROTARY CLUB NEWS: Rotary hears about Mirror Lake's health challenges



From left are Brendan Wiltse and Tyler Merriam (Photo provided)

Lake Placid Rotary Club recently hosted Brendan Wiltse and Tyler Merriam from the Ausable River Association.

The following is a brief overview of their presentation regarding the challenges facing the health and welfare of Mirror Lake and the solution.

Road salt poses significant challenges to water quality. Scientific analyses show that salt-laden runoff entering Mirror Lake exceeds acute and chronic toxicity thresholds for aquatic life.

Runoff is much denser than lake water; it rapidly sinks to the lake bottom and accumulates. This concentration of dense salt water prevents the lake from turning over, or mixing, in the spring.

Turnover is essential to the health of Mirror Lake. It redistributes oxygen and nutrients, providing habitat for lake trout and other aquatic life.

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The solution is water

quality monitoring

The health of Mirror Lake is essential to the health and vitality of Lake Placid. Regular monitoring of the lake provides early detection and rapid-response to problems – maximizing opportunities to find solutions.

The slow accumulation of road salt in Mirror Lake over at least two decades went unnoticed until 2015 when AsRA began monitoring the lake's health.

Although the health of the lake has declined, impacting its aquatic residents, it is not too late. Continuous monitoring will track the effectiveness of efforts to reduce salt inputs and restore lake health.

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Biological monitoring

To fully understand how the lake is responding to road salt pollution, stormwater runoff, development, climate change, and invasive species, we need to study the aquatic organisms that call the lake home.

Many lakes across North America are showing shifts in algal communities, aquatic plants, and fish populations.

Developing a biological monitoring project that connects to AsRA's water quality monitoring is central to long-term protection of the lake and the recreational opportunities it supports.

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A proven approach

The Ausable Sustainable Salt Initiative is the path to finding practical solutions. It engages science, technology, best practices, and community knowledge to identify, implement, and measure the effectiveness of solutions that reduce road salt pollution.

ASSI brings the latest in winter road maintenance technology and industry experts to the Mirror Lake and the AuSable River watershed to help our community reduce road salt use while maintaining safe roads, sidewalks, and parking lots.

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Equipment and tools

Upgrades to equipment used to monitor Mirror Lake will maximize efficiency and create more detailed, higher resolution data. A dedicated small flat bottom boat for lake monitoring; a scientific research buoy at the center of the lake with water quality data loggers; and a research quality microscope to monitor the biological communities are central upgrades. These are investments that will improve AsRA's ability to monitor Mirror Lake's health and pinpoint how best to protect it.

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Emergency fund

In 2017, AsRA responded to a citizen report of black water at the outlet of a stormwater outfall entering Mirror Lake. The AsRa science staff, along with dedicated partners, dropped everything to investigate what was thought to be a sewage leak into the stormwater system.

Within 24 hours, AsRA had results back that pointed to a sewage leak. They then relayed this information to the village of Lake Placid. Two additional tests confirmed the initial findings.

The capacity to rapidly respond to immediate threats is essential to mitigating unanticipated water quality challenges.

The emergency fund finances immediate response to events such as the one described above.

The 5-year total funding need is \$600,000. To date, AsRa has raised \$237,500 of expected funding from municipal, private, and grant support. These funds are committed towards regular monitoring and the Ausable Sustainable Salt Initiative. Equipment expenses, biological monitoring, and the emergency fund are unfunded at this time.

Rotary is a proud supporter of AsRA's future efforts.

The Rotary Club of Lake Placid is one of over 30,000 clubs worldwide. Members from over 200 countries are part of a global network of 1.2 million people who come together to make positive, lasting change in communities locally, nationally and internationally.

The club meets every Thursday at 7:20 a.m. at the Marriott Courtyard hotel. To learn more about the good deeds of Rotary, go to rotarylakeplacid.org or rotary.org or visit their Facebook page.
