



LAKE WINNIPESAUKEE
ASSOCIATION
Keep Winnie Blue

WINNIPESAUKEAN

SPRING 2024

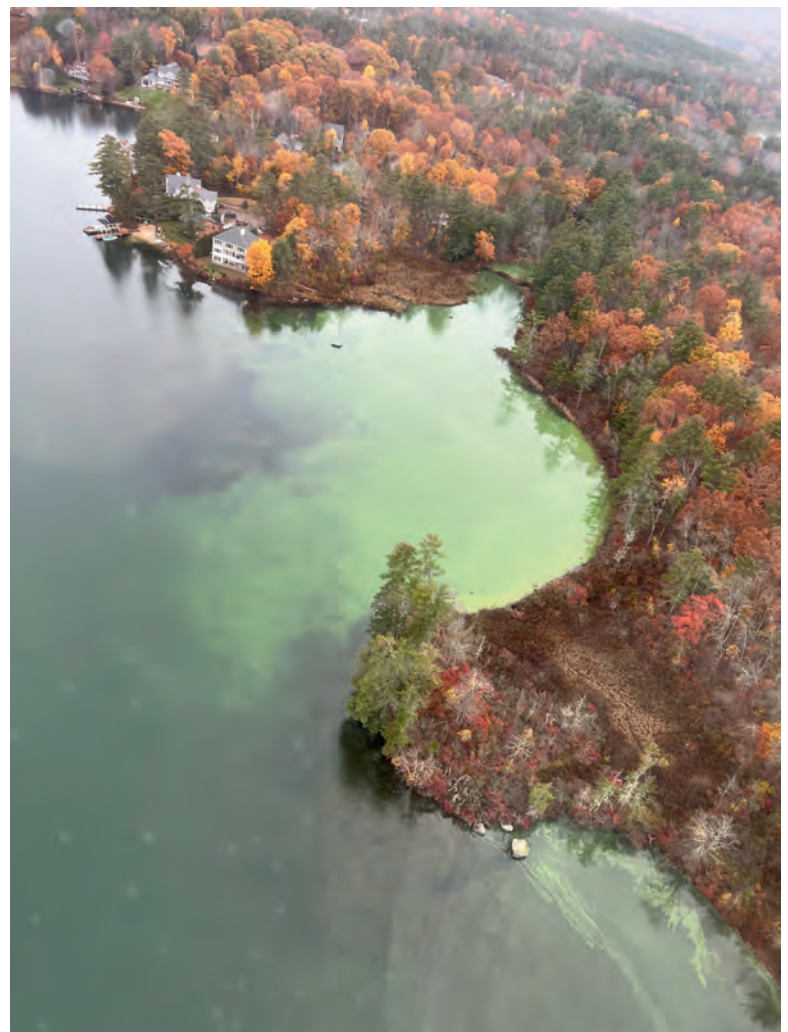
LWA AWARDED MAJOR EPA GRANTS!

The Lake Winnepesaukee Association (LWA) has been awarded \$650,000 in federal grants to aid our work in safeguarding and enhancing water quality in Lake Winnepesaukee. The grants represent the organization's largest awards to date and underscore LWA's leadership in protecting the lake.

"The Lake Winnepesaukee Association plays a pivotal role in preserving and improving water quality in the Lakes Region, including Lake Kanasatka and Lake Winnepesaukee, which is critical to driving economic growth and tourism across the region," said Senator Jeanne Shaheen. *"I was glad to secure federal funds to support its work to protect New Hampshire's most valuable freshwater resources and expand lake protection efforts for years to come."*

To match the federal grants, LWA needs to raise \$150,000 in new local funding and has initiated a fundraising campaign to garner community contributions. LWA Board Chair Peter Glick of Tuftonboro stated, *"We need to expand the support of individuals and businesses who cherish Lake Winnepesaukee's pristine water to help us achieve our target."*

The collective resources from the EPA and public will aid LWA in developing a lake management strategic plan for Lake Winnepesaukee, and implement critical mitigation measures on Lake Kanasatka. The work will pinpoint and prioritize sources of nutrients and other harmful pollutants posing a threat to the lake's water quality across the watershed. (continued on page 3.)



Blackey Cove, Lake Winnepesaukee. October 29, 2023

MESSAGE FROM THE PRESIDENT



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Patricia Tarpey, President

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The future of the lake is in your hands, and its counting on you to help!

Exciting prospects lie ahead for the lake this year and beyond. As highlighted on the front page, LWA has secured the largest grants in its history. These awards are substantial and underscore the critical need for lake management to preserve and protect our precious water resources. The grants are also a testament to LWA's successful track record in lake protection.

Over the past 14 years we have identified and prioritized sources of pollutants that threaten our lake's health. Working closely with local communities, we are advocating for sustainable land use practices and regulations that emphasize watershed protection. Moreover, we are involving more residents, businesses, and the surrounding communities in supporting and funding a robust, sustainable watershed protection program.

Apart from the EPA grants, there are other exciting projects and initiatives in progress:

- LWA will be participating in a cyanobacteria monitoring pilot project on Lake Waukegan. Read more on page 4.
- Implementing mitigation strategies in Tuftonboro to decrease sediment input into Melvin River and Moultonborough Bay.
- Collaborating with the Lake Kanasatka Watershed Association to address stormwater runoff into their lake.
- Expanding staff and the Board, and implementing our strategic plan.

These are just a few of the areas where LWA will concentrate its efforts in 2024.

We deeply appreciate your support of our mission. However, as we embark on these new projects and initiatives, we need to raise significant funds to meet not only the matching requirement of the EPA grant, but to support and expand the important work of safeguarding the lake. Please consider increasing your annual contribution, or making an extra donation to support the Lake Winnepesaukee Protection Initiative. Additionally, spread the word about LWA's work and please encourage your friends and neighbors to contribute.

Together, we will secure the lake's future. Donate today!

Pat

Patricia Tarpey, President



LAKE WINNIPESAUKEE PROTECTION INITIATIVE

To date, LWA has evaluated six of the ten bays that make up the lake, and is currently partnering with the Town of Wolfeboro to develop a watershed-based plan for Wolfeboro Bay. The newly secured EPA funding allows the organization to complete watershed and water quality analyses for the remaining 3 bays; Center Harbor Bay, the Broads, and Alton Bay. In addition, LWA will work with the shorefront communities to develop and promote sustainable land use practices, adopt consistent regulations and ordinances for watershed protection, and engage the community for long-term support and funding for a sustainable watershed protection program.

“EPA’s grant will help the Lake Winnepesaukee Association address the threats that imperil Lake Winnepesaukee’s water quality,” said Pat Tarpey, LWA’s President. *“If we don’t take steps to protect this resource right now, we risk seeing the lake’s water quality continue to decline which in turn will threaten the economy of the region.”*

FB Environmental Associates has been contracted with to assist with the project. FBE has extensive experience in conducting watershed and water quality studies, and has completed the studies for the other bay areas of Lake Winnepesaukee. EPA approved watershed-based plans opens up future funding opportunities for mitigation and restoration of identified issues.

You can check out previously completed plans at <https://www.winnepesaukee.org/how-we-protect-winnepesaukee/lakemanagement/>



Study Area for the three watersheds.

Center Harbor Bay watershed.



The Broads watershed.



Alton Bay watershed.

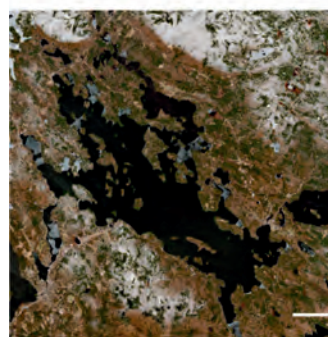
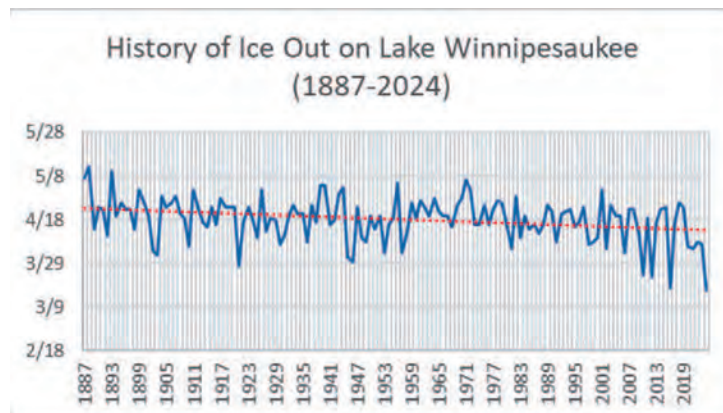


EARLIEST ICE OUT ON RECORD!

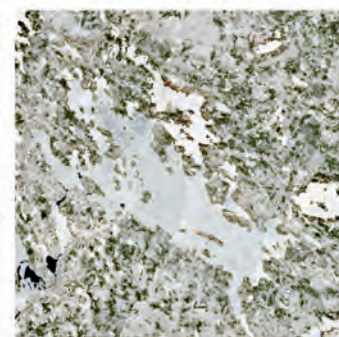
The Lake Winnepesaukee Association shares the growing concern surrounding the trend of earlier ice-out and, perhaps even more importantly, the decreasing duration of ice coverage. Although these trends are indicative of broader changes to our climate, the implications of a record breaking ice-out extend beyond warming winters and an early spring.

A shorter ice covered period on our lakes means an extended spring, summer and fall season, resulting in warmer waters, and a longer time period for plant growth, including algae and cyanobacteria. These changes in water temperatures can significantly impact the lake's ecology, benefiting some species, but negatively impacting others, such as cold-water species like landlocked salmon and trout. An extended summer season may be welcome to many, but brings added concern regarding invasive species, and will provide favorable conditions for cyanobacteria blooms.

These shifts in our lakes emphasize the need for protection and preservation of our waterbodies now.



2024



2023

CYANOBACTERIA MONITORING OF LAKE WAUKEWAN

LWA will be assisting with a cyanobacteria monitoring pilot project on Lake Waukegan (a lake that drains into Meredith Bay). Through a NHDES Source Water Protection Grant, FB Environmental Associates will be conducting an intensive cyanobacteria monitoring and sampling program on Lake Waukegan, Meredith's drinking water supply. The project expands on the existing volunteer lake monitoring program by adding a cyanobacteria monitoring component, and conducting continuous monitoring through deployment of a buoy, weather station, and data sonde. **LWA staff will be analyzing the water samples for the presence of cyanobacteria, its speciation, enumeration, and presence of cyanotoxins. LWA will also serve as first responder to troubleshoot small issues with the buoy or weather station.**

Project partners include the Town of Meredith, Meredith Water Department, Lake Waukegan Watershed Advisory Committee, Lake Waukegan Association, Windy Waters Conservancy, University of New Hampshire Lakes Lay Monitoring Program, FB Environmental Associates, and NHDES.



DB600 Real Time Data Buoy



YSI Sonde

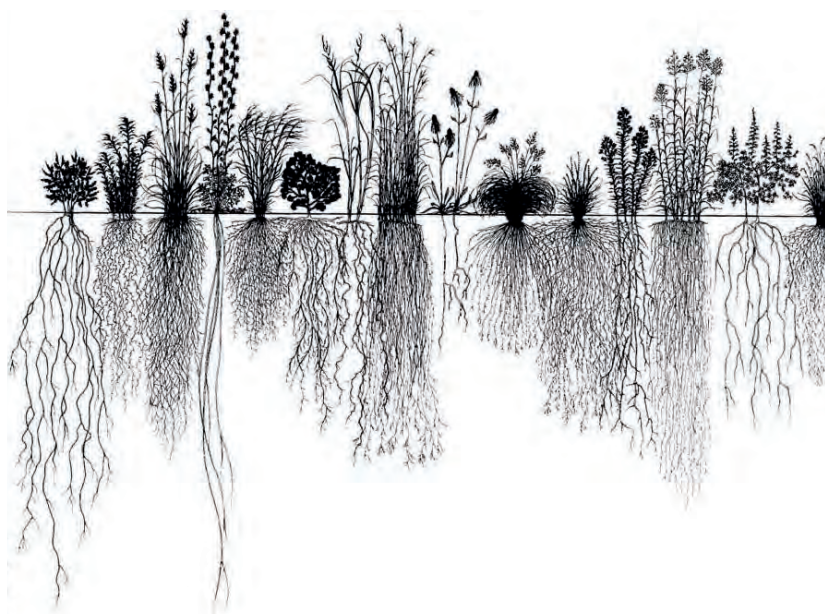
SPRING INTO ACTION! INCORPORATE NATIVE PLANTINGS.

Whether your property is inland or waterfront, your actions impact the water quality of our lake. Therefore, we all play a role in ensuring that our properties are lake-friendly! When planning your spring landscaping, consider incorporating native plantings around your property, especially along your shoreline, if you have one. **Native plantings play an important role in mitigating nutrient loading that results from stormwater runoff.**

Nutrient loading can have a major impact on the water quality and health of our lakes. Excess nutrient loading degrades Winnepesaukee's water quality by feeding algal blooms, invasive species and plant growth, and decreasing water clarity. Native plantings soak up excess nutrients thus reducing the amount reaching our lake.

EXAMPLES OF NATIVE PLANTINGS

-  High & Lowbush Blueberry
-  Winterberry Holly
-  Sweet Pepperbush
-  Blue Flag Iris
-  New England Aster
-  Joe Pye Weed
-  Hay-Scented Fern

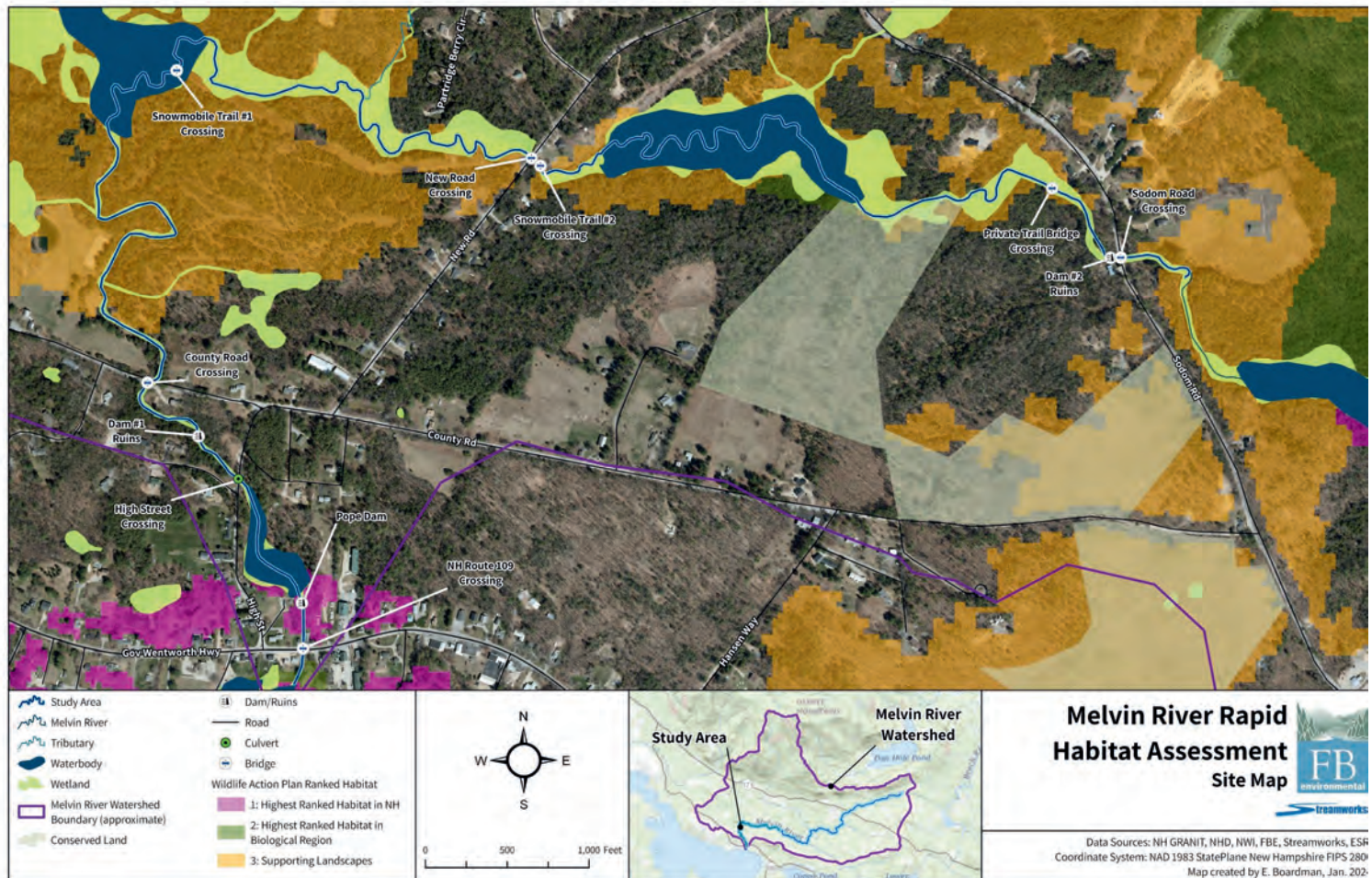


But you may ask, don't all plant species soak up water through their roots? Yes, they do! However, native plantings have much deeper roots and additional benefits. Since native plant species are acclimated to their region's climate and soil conditions, they are able to develop much deeper and complex root systems that are able to thrive compared to their non-native neighbors. The native root systems are incredibly effective at absorbing excess nutrients from stormwater runoff. In addition, native plantings offer habitats and nutrients to support local pollinators and wildlife.

Where should you incorporate native plantings on your property? Basically, everywhere, especially along your shoreline! **Vegetative shoreline buffers are the "last line of defense" the lake has against stormwater runoff.** Therefore, it's important to have a dense shoreline buffer composed of native plantings. As for other areas of your property, you can plant native species purchased from your local garden center in areas that you don't use for recreation. Native plant gardens are a beautiful addition to your landscape and can help increase your property value. Alternatively, consider letting an unused area of your lawn rewild. Simply refrain from mowing and let those native grasses and plants do their thing.

This summer, let's all do our part to "Keep Winni Blue" by getting our thumbs green!

MELVIN RIVER ASSESSMENT



Site map of the habitat assessment study reach and Melvin River subwatershed located in Tuftonboro, NH.

During the summer and fall of 2023, FB Environmental (FBE) in partnership with Streamworks, PLLC (Streamworks) completed assessments of the Melvin River in Tuftonboro for the Lake Winnepesaukee Association. NH Fish & Game assisted with the project by conducting fish community surveys and stream crossing evaluations.

The goal of the project was to investigate the river's condition, ecological health, and geomorphic features to determine influences on the river that ultimately contribute to Moultonborough Bay's ecological health, and to protect the river and its habitat. The assessments aim to guide future restoration efforts and encourage conservation of the river's valuable riparian and forested habitat. The Melvin River watershed was identified as a priority due to phosphorus concerns and visual turbidity during storms. The river supports a diverse habitat, including Eastern Brook Trout, a species of special concern, that are only found in flowing riverine habitats with high dissolved oxygen and cool water temperatures. Assessments included habitat, geomorphic, and fish surveys, as well as stream crossing evaluations by NH Fish & Game.

This project was made possible through the generous contributions from the Davis Conservation Foundation, Cogswell Benevolent Trust, Lake-Life Realty, and Peter and Kerstin Glick.

MELVIN RIVER ASSESSMENT



Key Findings and Recommendations

The Melvin River and its riparian habitat show a diverse and healthy riverine system, with intact riparian buffers, diverse aquatic habitats, stable banks, and minimal erosion. Development pressures near Melvin Village contrast with unfragmented landscapes in upper sections.

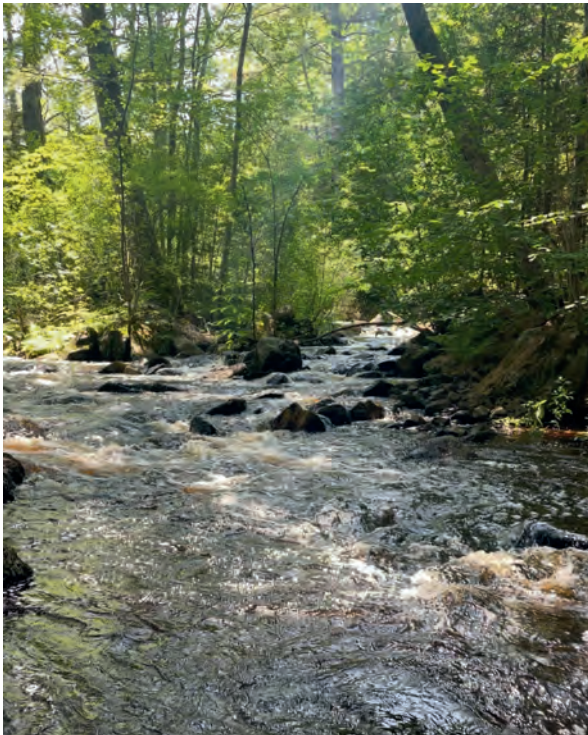
Key influences on the river include road-stream crossings, snowmobile trail crossings, a dam, dam ruins, and residential development near the river. These factors all contribute to channel constriction, diminished in-stream and terrestrial habitat, sedimentation, and nutrient inputs.

Development along the river, wetlands, and its tributaries is the biggest threat to the river's ecological health. Based on the 2020 build-out analysis completed for the Moultonborough Bay watershed-based plan, it was estimated that approximately 1,522 new buildings could be built within the Melvin River watershed. The analysis identified 260 existing buildings in the watershed. A full build-out would represent a 485% increase in development within the Melvin River watershed!

Preventative actions to limit and guide development within the Melvin River watershed are highly recommended. Conserving the unique and diverse wetland and forested land adjacent to the river should be a top priority for the health of Melvin Bay.

Shoreline development around Melvin Bay emerges as a more likely influential factor in water quality and the ecological health of the bay. Despite the study reach's overall good condition, strategic conservation measures and actions can still improve the watershed's overall condition and preservation of the intact landscape should continue to be pursued.

A comprehensive list of recommendations for watershed-wide and reach-specific improvements is included in the report (which can be found on LWA's website) as a guide and tool to improve the watershed's overall condition.





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LWA WELCOMES NEW BOARD MEMBERS



Dylan Thomason

Originally from Indiana, Dylan attended the University of Mississippi and moved to Boston to pursue his law degree from Northeastern University. Like a lot of Bostonians, Dylan found himself seeking access to the beautiful lakes and mountains of New Hampshire most weekends to ski, hike, swim, camp, and explore the landscape (and escape the city). Dylan now lives in Meredith working as an attorney with the Corporate Sustainability division of IBM. Living locally in the Lakes Region allows Dylan to exercise his care for the quality of our environment, including the water and soil quality, and nearby mountain ecosystems. LWA offers an opportunity to conserve the beauty of Lake Winnepesaukee and ensure these areas will continue to be enjoyed with friends and family and next generations.

Ron Buell is a Senior Technology Executive with over 30 years of experience in the High Tech industry. Starting his career as a Software Engineer he has climbed the ranks to Chief Technology Officer.

As a lifelong summer resident of Tuftonboro, he is passionate about all things Lake Winnepesaukee. Serving on the Board of the Lake Winnepesaukee Association allows for that passion to translate into active stewardship in preserving the Lake's water quality for future generations.

Ron lives with his family in Exeter, NH and enjoys waterskiing, golf, snow skiing, and cooking.



Ron Buell