

LOCAL NEWS OCTOBER 2, 2026

Lake Winnepesaukee water clarity down more than 8 feet in 40 years, report finds

A new Lake Winnepesaukee Alliance report finds declining water clarity and rising phosphorus levels, but says action now can protect the lake's future.



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Bree Rossiter, associate director of the Lake Winnepesaukee Alliance, points out an area of concern on a map of the lake. PROVIDED BY LAKE WINNIPESAUKEE ALLIANCE

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Tim McDonald knows Lake Winnepesaukee about as well as anybody could.

A marine contractor, he's no stranger to the bottom of the lake. But in the years he's been diving, salvaging and otherwise working in the water, he's noticed changes in water clarity.

"I've been doing commercial diving on Winnepesaukee for 10 years," he said Thursday. "And you can definitely see a lot of impacts over the years."

A new report published by the [Lake Winnepesaukee Alliance](#) (LWA) describes in great detail the reasons why. Water clarity in New Hampshire's largest lake has degraded by more than 8 feet on average in the last 40 years or so, according to the report.

It's not too late to reverse the trend, fight threats and improve the water quality, according to the comprehensive report, [Signs of Decline: Assessing the State of Lake Winnepesaukee](#).

"It's easy to see the lake as a bucket of water, but the reality is, it's alive," McDonald said.

Traffic on the lake affects the variable water clarity and the stratification of the water's layers. The sediment contained within has something to do with it too.



"You can see a difference in water clarity post-holiday weekend," McDonald said.

Lake Winnepesaukee is an economic driver for the state as a central tourism hub that attracts visitors in droves every summer from all over New England. A 2021 [Dartmouth report](#) estimated the lake generates more than \$294 million in tourism revenue, more than \$16 billion in property value and more than \$216 million in local property taxes. It's also the lifeblood of the city of Laconia, which draws its drinking water from Paugus Bay.

"The biggest takeaway for me is that there are clear signs of decline, but there is also a tremendous opportunity," said Bree Rossiter, LWA associate director. "We understand more than ever about what is changing, what is driving those changes and what we can do about it. The future of Lake Winnepesaukee is not predetermined. What we do now matters."

The loss of water clarity, increasing levels of phosphorus and cyanobacteria outbreaks are all signals that action is needed in the immediate term to safeguard the lake, according to the LWA.

"This assessment is not saying that Lake Winnepesaukee is a polluted lake. It isn't," said Mark Ishkanian, chair of the LWA board of directors. "It is telling us that the direction of change is unmistakable — and that waiting until the damage is more obvious would be a serious mistake."

The assessment is informed by more than 40 years of lake monitoring data from 150 different locations and more than 1 million land-use observations analyzed over 50 years.

Across multiple domains, signs of threats to lake health have been documented, most obviously a rash of cyanobacteria blooms in the summer of 2024 that impacted beaches and prompted warnings in multiple locations from the New Hampshire Department of Environmental Services.

Phosphorus feeds cyanobacteria, and data recorded from 1985 to 2025 shows an increase in the level present in the lake — 10 tons more entering the lake each year from the land and tributaries that drain into the water.

"What it really means is that the fate of the lake is at a crossroads," LWA Executive Director Eric Siy said. "Where we can choose one path, or forge another."

"I see Lake Winnepesaukee as one of the jewels in nature's crown," Siy added.

Cause and effect

The causes are varied, but primary among them is the loss of protective natural land cover and increasing amounts of impervious surface, allowing stormwater runoff, septic effluent and road salt into the lake. All of those factors contribute to nutrient loading.

Every year, 44.5 billion gallons of stormwater runoff enters Lake Winnepesaukee and can contain pollutants and sediments, including road salt, fertilizer, motor oil, heavy metals, pesticides and pet waste. The amount of stormwater runoff reaching the lake's waters is expected to increase by about 3 billion gallons by 2075, according to the report.

"We are not landing anyone on Mars or even the moon. We are just reducing the nutrients loading into Lake Winnepesaukee," Siy said.

Chance for a sea change

Everyone who enjoys spending time on and around the lake has the power to make a difference, advocates said.

Lake Winnepesaukee is unique for its beauty, Siy said, but it's also unique for its relationship to property ownership.



Approximately 90% of lake shoreline is privately owned, and residents can make small changes that result in big differences.

"This is not an anti-development report or message," Siy said.

What the report is, however, is an important baseline for visitors, landowners, business owners and conservationists alike. It shows the acceleration of decline over time, Siy said, and provides a roadmap in terms of interventions, targeted to locations that will make the most impact because "you can't manage what you can't measure."

"It is in our hands, the future of the lake," Siy said. "The cavalry isn't coming — we are it." Improving the lake's health would take a combined effort of public and private entities to get there, Siy said.

There's a place for legislation, but the most important impacts could be made by the people who live, work and enjoy spending time on Lake Winnepesaukee.

"I am nothing but optimistic about the future of our lake," Rossiter said.

"Talk to your landscaper. Go outside during a rainstorm and see where the water flows. Get your septic system inspected and pumped. Learn to salt smarter," Rossiter said. "Clean, drain and dry your boat and fishing equipment. There are so many ways people have the power to protect the lake."

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