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ENVIRONMENT

APA approves herbicide use on Minerva Lake

By Gwendolyn Craig

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No pressure, Minerva Lake, but all eyes are on you now.

The Adirondack Park Agency approved on Thursday the one-time use of a new kind of herbicide to treat the invasive Eurasian watermilfoil on a portion of the 79-acre lake in Essex County. It is the third time in at least two decades that the APA has approved the use of an herbicide on a lake, but the first time it has approved this kind called, ProcellaCor EC.

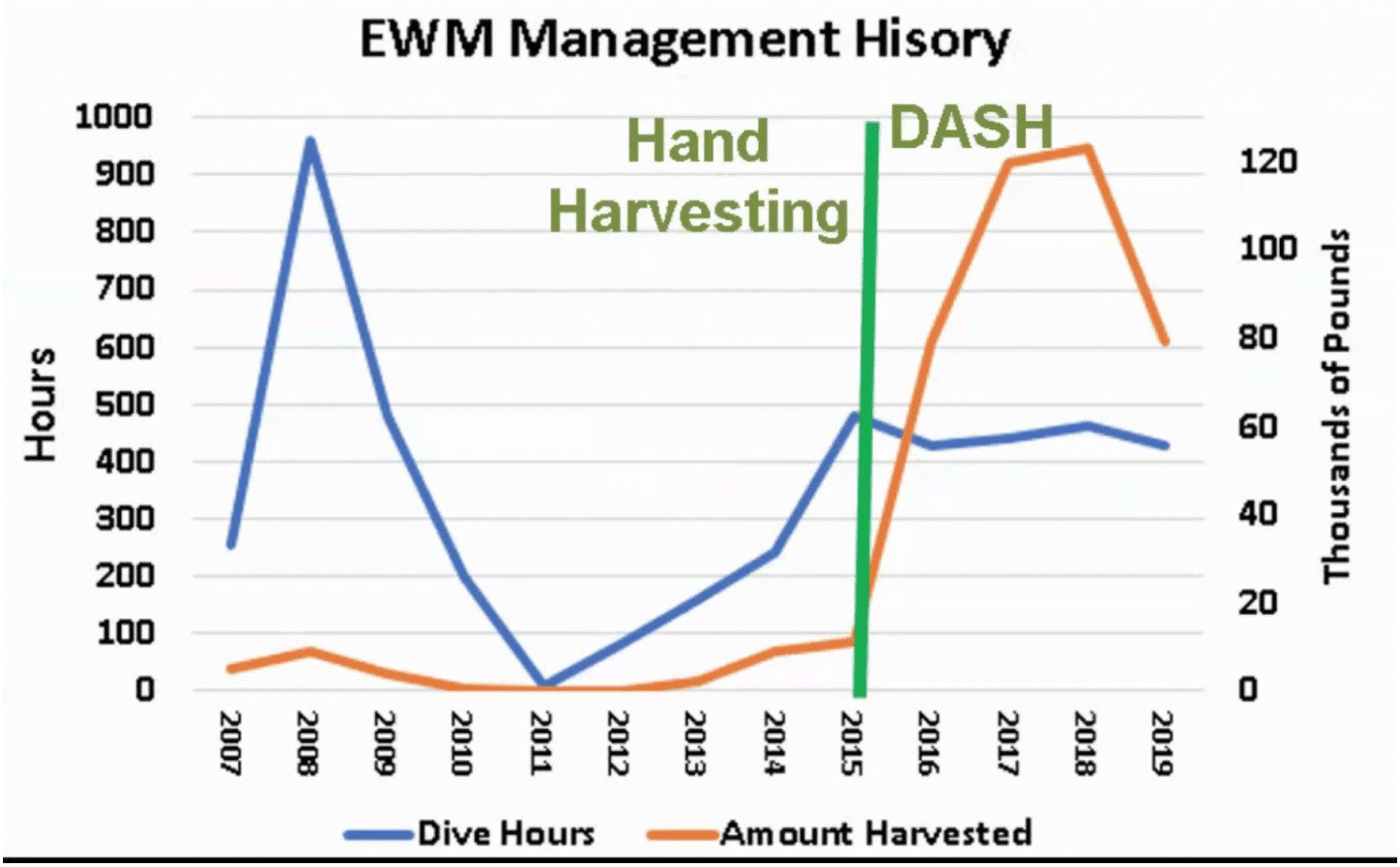
The herbicide is relatively new on the market, registered with the U.S. Environmental Protection Agency in 2018 and approved for use in New York State in 2019. It is already in use on other lakes outside the Adirondacks and in other states like Vermont, New Hampshire and Maine.

Depending on how successful treatment is on Minerva Lake, other lakes in the Adirondacks could add this invasive species treatment to their arsenals, including the “Queen of American Lakes,” Lake George.

Leigh Walrath, a freshwater analyst for the APA, said the Town of Minerva has been battling nuisance vegetation in its namesake lake since the 1980s. Eurasian watermilfoil, a particularly pesky invasive plant, found its way into the lake around 2007, making things even worse.

Milfoil grows quickly and outcompetes other native vegetation. Not only can it hurt the ecology of the lake, but it also makes it more difficult to swim and go boating.

In 2008, the town sunk resources into harvesting milfoil, and the effort was a success. By 2011, it looked like Eurasian watermilfoil was nearly gone. But at the advice of a contractor at the time, the town let management of the invasive species lapse, Walrath said, and now dense beds are cropping up once more.



A screenshot from an Adirondack Park Agency presentation showing the history of Eurasian watermilfoil management on Minerva Lake.

In 2015, the town switched from hand-harvesting the plant–that is individuals going out and ripping milfoil from the root, putting it in a bag and loading it onto a boat–to diver-assisted suction harvesting. Divers also hand-pull the plant, but suck it up with an underwater vacuum that spits the harvest out onto the boat. The town went from removing between 5,000 and 10,000 pounds of milfoil from Minerva Lake per year, to upwards of 80,000 pounds per year, through the switch. But, divers work about 5.7 hours per day for 70 days to get that much milfoil out of the lake.

“For an 80-acre lake, it’s a very large number of dive days,” Walrath said.

Working with an environmental contractor called Solitude Lake Management, the town applied to the APA to use the herbicide on 41 acres. It’s expected to reduce milfoil in the treated areas by 95% or more. The town plans to spend $25,000 on the treatment, and another $25,000 on continued diver-assisted suction harvesting. Walrath said the herbicide may not be needed again for years, depending on how much management and monitoring a municipality does afterwards.

For example, it has been 10 years since the APA approved the use of an herbicide called Renovate on Lake Luzerne. In 2013, officials managing milfoil on Loon Lake also received permission to use Renovate, and neither Warren County municipalities have been back for more application approvals.

"We have a pretty good track record here," Walrath said, referring to how chemicals aren't heavily relied on. "Outside the park, (lakes treat) sometimes every three to four years. It is our hope that that does not become the norm, and I don't believe that would become the norm."

At a Lake George Park Commission meeting last year, Executive Director David Wick brought up the benefits of ProcellaCor EC and how it could be a tool for Lake George down the line.

Milfoil is one of the major invasive species in Lake George, and through grants and other funding mechanisms, the Park Commission spends more than $400,000 a year on managing it. The plant is removed mostly through diver-assisted suction harvesting on hot spots in the lake.

"We're a long way from even considering anything chemical-wise," Wick said in a phone interview on Wednesday. "Right now our solution, while very expensive, does seem to be working."

Whether the funds keep rolling in at the rate needed in the future, however, remains to be seen. Wick said he is "keeping an eye" on what happens at Minerva Lake.

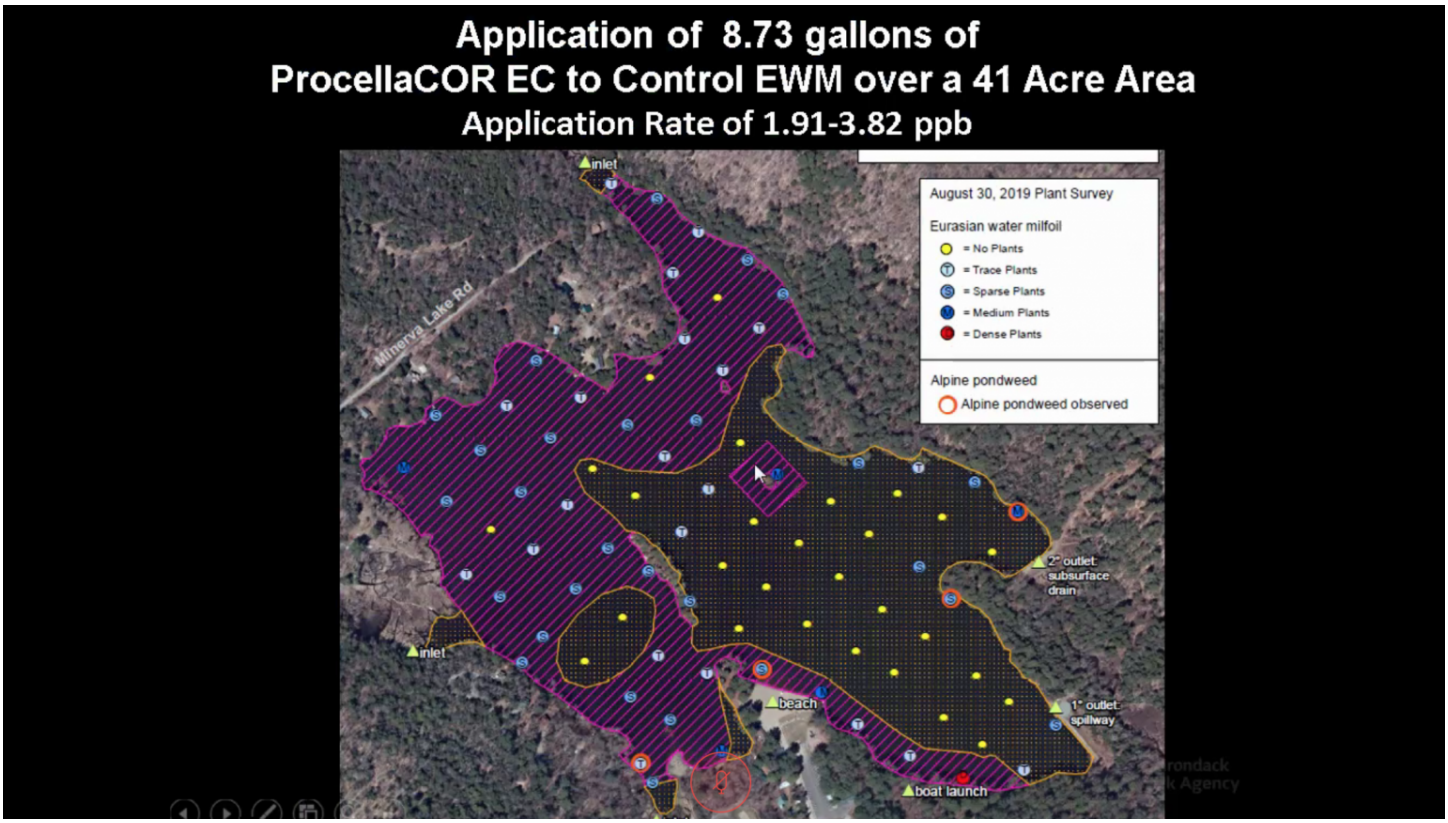
So are a number of lake association members of the Warren County Water Quality Strategy Committee, said Jim Lieberum, one of the committee chairs and manager of the county's soil and water conservation district.

"These are all silver bullets, every time they come out," Lieberum added, about herbicides. "There's the old saying of having it in the tool box, it's good. But, you can't go crazy with it."

ProcellaCor EC, Walrath said, appears to be even safer than what the APA approved for Loon Lake and Lake Luzerne. For one, municipalities use much less of it. While pounds and gallons aren't compatible comparisons, Loon Lake needed 1,500 pounds of Renovate to treat 15 acres, whereas Minerva Lake will use no more than 8.73 gallons of ProcellaCOR EC to treat 41 acres.

According to the EPA, ProcellaCOR EC is considered "practically non-toxic" to fish, birds, mammals, amphibians and reptiles, which is the lowest toxic value that can be assigned by the federal agency. It is considered "slightly toxic" for invertebrates. It is not expected to affect native vegetation very much, Walrath said. It could cause some browning to native watershield, white waterlily and water stargrass.

For drinking water, the state Health Department's limits for the herbicide are anything over 50 parts per billion, but Minerva Lake's treatment concentration per one-acre foot of water will be less than 4 parts per billion. There will be testing to monitor concentrations downstream.



A screenshot of an Adirondack Park Agency presentation showing applications anticipated of an herbicide to treat Eurasian watermilfoil on Minerva Lake.

Solitude Lake Management will be using an airboat to apply the herbicide through a drip treatment process, onto the milfoil. ProcellaCor EC mimics a kind of plant hormone, but rather than help milfoil grow, it will hinder the process. It eventually kills the plant, all the way to its root system. The herbicide breaks down over the course of 12 to 24 hours, and the plant will decompose in a couple of weeks.

Walrath said notice of the town's application to use an herbicide on the lake was put out for public comment to shoreline owners, published in the state Department of Environmental Conservation's Environmental Notice bulletin and aired at a town public hearing. Two comments came back in support of the effort.

In addition to APA's approval on Thursday, the DEC approved the use of the herbicide. The application is expected to happen sometime around the end of May, when milfoil tends to be at its peak growth.

Gwendolyn Craig

Gwen is an award-winning journalist covering environmental policy for the Explorer since January 2020. She also takes photos and videos for the Explorer's magazine and website. She is a current member of the Legislative Correspondents Association of New York. Gwen has worked at various news outlets since 2015. Prior to moving to upstate New York, she worked for a D.C. Metro-area public relations firm, producing digital content for clients including the World Health Organization, the Low Income Investment Fund and Rights and Resources Initiative. She has a master's degree in journalism from the S.I. Newhouse School of Public Communications at Syracuse University. She has bachelor's degrees in English and journalism, with a concentration in ecology and evolutionary biology, from the University of Connecticut. Gwen is also a part-time figure skating coach. Contact her at (518) 524-2902 or gwen@adirondackexplorer.org. Sign up for Gwen's newsletter here.

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Comments

Lori McLenithan says
July 26, 2020 at 3:06 pm

Hi Gwen I'm on Lake Lauderdale in Cambridge. Our lake association uses Sonar. I'd love to talk to someone about this product. Leigh Walrath's contact info would be great. Our lake is not clean or clear. I feel they are killing the lake. I don't see mussels or snails any more. Fewer sunfish nests. I really don't think our lake is healthy anymore.

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