



ENVIRONMENT

What is ProcellaCOR herbicide and how does it target milfoil?

By Zachary Matson

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A worker collects watermilfoil on a boat on Lake George after it had been sent through a suction tube by a diver working on the lake bottom. Explorer file photo by Mike Lynch

What's at play in using an herbicide in Adirondack waters

By Zachary Matson

From Lake George and Lake Luzerne in the southern Adirondacks to Horseshoe Pond north of Paul Smiths, lakes in the Adirondacks have struggled to control **invasive Eurasian watermilfoil**. Municipalities and nonprofit organizations spend thousands of dollars toward removing the nuisance water weeds. For decades, the main weapon in communities' tool kit has been contracting with specialized dive teams to harvest the plant using suction devices.

In recent months, the **planned use of a chemical herbicide on Lake George** sparked a debate over its use. Other communities in the Adirondack Park **have taken an interest** in this new tool in the fight against invasive aquatic weeds.

Proponents of the herbicide ProcellaCOR say it's safe and effective. Skeptics warn the studies are limited and the long-term effects are still not well understood.



Consultants survey Minerva Lake before applying herbicide to combat Eurasian watermilfoil in June 2020. Explorer file photo by Gwendolyn Craig

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Milfoil FAQs

What is milfoil?

Eurasian watermilfoil, *Myriophyllum spicatum*, has a native range in Europe and Asia.

The plant is thought to have been introduced in the U.S. as early as the late 1800s or early 1900s. It has spread widely throughout the Great Lakes and the Northeast, including across the Adirondacks.

Why is it a problem? How does it spread?

It looks like many native plants but emerges earlier in the spring and threatens to outcompete the natives.

Plant fragments, which break off easily from boat traffic and other disturbance, can spread to other parts of a lake or a different lake and establish new populations.

ProcellaCOR FAQs

What is ProcellaCOR? How does it work?

ProcellaCOR is a systemic herbicide that mimics a plant's growth hormone. It kills the entire plant, leaving decomposing biomass at the bottom of the lake. The active ingredient is Florpyrauxifen-benzyl, and it can be used at much lower dosages than previous herbicides used to treat Eurasian watermilfoil, including ones previously used or considered on Adirondack lakes.

The herbicide is registered for use in rice-growing operations and for weed control in freshwater. In the Adirondacks, herbicide proponents hope ProcellaCOR can help fight back Eurasian watermilfoil, one of the park's most pervasive invasive weeds.

Documents filed with the APA from region's seeking permission to use ProcellaCOR project it will control invasive milfoil for three seasons.

What other plants does it target?

It can also be used to combat variable-leaf milfoil, another aquatic invasive, and may be helpful against hydrilla, which is not yet established in the Adirondacks [but has come close](#).

The herbicide could also negatively impact native milfoils, watershield, waterlilies and coontail.


What was ProcellaCOR's approval process?

It has been approved for use at the state and federal levels. The Environmental Protection Agency registered the herbicide in 2017 under the Federal Insecticide, Fungicide and Rodenticide Act, determining the product was safe and not toxic.

"There is a reasonable certainty that no harm will result from aggregate exposure to the pesticide chemical residue," the EPA said. The registration documents caution approval does not represent a recommendation. The EPA uses a higher standard when judging safety for children, which it met.

The state Department of Environmental Conservation conducted its own technical evaluation and nearly every state in the country along with Canada and the European Union have signed off on the herbicide.



 <p>U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Registration Division (7505P) 1200 Pennsylvania Ave., N.W. Washington, D.C. 20460</p> <p>NOTICE OF PESTICIDE: <input checked="" type="checkbox"/> Registration <input type="checkbox"/> Reregistration (under FIFRA, as amended)</p>	<p>EPA Reg. Number: 67690-80</p>	<p>Date of Issuance: 2/27/18</p>
	<p>Term of Issuance: Unconditional</p>	
	<p>Name of Pesticide Product: PROCELLACOR EC</p>	
<p>Name and Address of Registrant (include ZIP Code): SePRO Corporation 11550 North Meridian Street, Suite 600 Carmel, IN 46032</p>		
<p>Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.</p>		
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[ProcellaCOR EPA Registration](#) [Download](#)

ProcellaCOR and the Adirondack Park

What is the history of using herbicides in Adirondack waters?

In 2020, the Adirondack Park Agency approved ProcellaCOR use in Minerva Lake, one of the infrequent herbicide approvals granted in the park.

The APA rejected a 2001 proposal to apply the herbicide Sonar in Lake George after an adjudicatory hearing.



Invasive Eurasian watermilfoil. Explorer file photo by Mike Lynch

Where has ProcellaCOR been used so far?

The herbicide has been used on many lakes, including 30 in New York and 100 across the Northeast.

SOLitude Lake Management, a national environmental firm, has been hired by many lake managers to facilitate permit approval and apply the chemical to the water.

After DEC approval, the chemical was first used in New York in 2019 at Snyder's Lake in North Greenbush.

A year later, it **debuted in the Adirondack Park at Minerva Lake**. Soon after, applicators dropped the chemical in Glen Lake, Sunnyside Lake and other lakes near the park boundary.

The herbicide has faced some resistance on Chautauqua Lake in western New York, where the Chautauqua Lake Association questions whether it is as effective as supporters claim. "We have not observed the success that the applicator and its [advocates] have touted," Douglas Conroe, executive director of the lake association wrote in public comments on the Lake George plan.

What results have been witnessed so far?

Town officials near Minerva Lake reported that Eurasian milfoil did not return to the lake for at least two seasons and that some native plants had recovered after showing initial impacts.

Bob Bombard, a water specialist with the Warren County Soil and Water Conservation District, recently reported that post-treatment surveys on Sunnyside Lake found no invasive milfoil on the lake a month and two months later.

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What concerns do some people in the Adirondacks have?

Herbicide opponents have raised concerns about how well ProcellaCOR has been studied, its impacts on native species and unintended consequences.

The Lake George Association outlined a handful of problems it found with the Lake George Park Commission’s application to use the herbicide, including a lack of wetlands identification, dilution modeling that doesn’t account for water currents and questioned the methodology used to survey plants in the area. Retired scientist Carol Collins, who lives on Lake George, said the science underlying the herbicide’s approval was insufficient to understand impacts.

“With only a limited number of peer-reviewed toxicology tests on a limited number of species, the fate and effect of florpyrauxifen-benzyl on plants and animals in the Lake George ecosystems is unpredictable and immeasurable,” Collins wrote. “Because the US EPA relies on only a few standard plant and animal species for toxicity testing in its approval process, this model is severely flawed and unreliable for Lake George without further testing.”

Some detractors draw a bright line against the use of chemicals in all Adirondack waters, citing

the history of other pesticides and insecticides that government agencies deemed safe but led to catastrophes, such as DDT in the 1940s and 1950s.

What do supporters say in response?

Supporters claim concerns are unfounded and that it is misleading to compare current approval procedures to what was in place decades ago.

The failings of past chemical approvals inform decisions made now, they argue.

“All of that information and concern and effort goes into the next review,” said Dave Wick, executive director of the Lake George Park Commission. He and others note that native plants will benefit if invasive milfoil is controlled, allowing the natural ecology to restore itself.

Lake associations and local governments say that annual hand harvesting is costly and that the herbicide can provide relief. Many lake associations across the park, as well as the Adirondack Park Invasive Plant Program, submitted comments supportive of the Lake George plan.

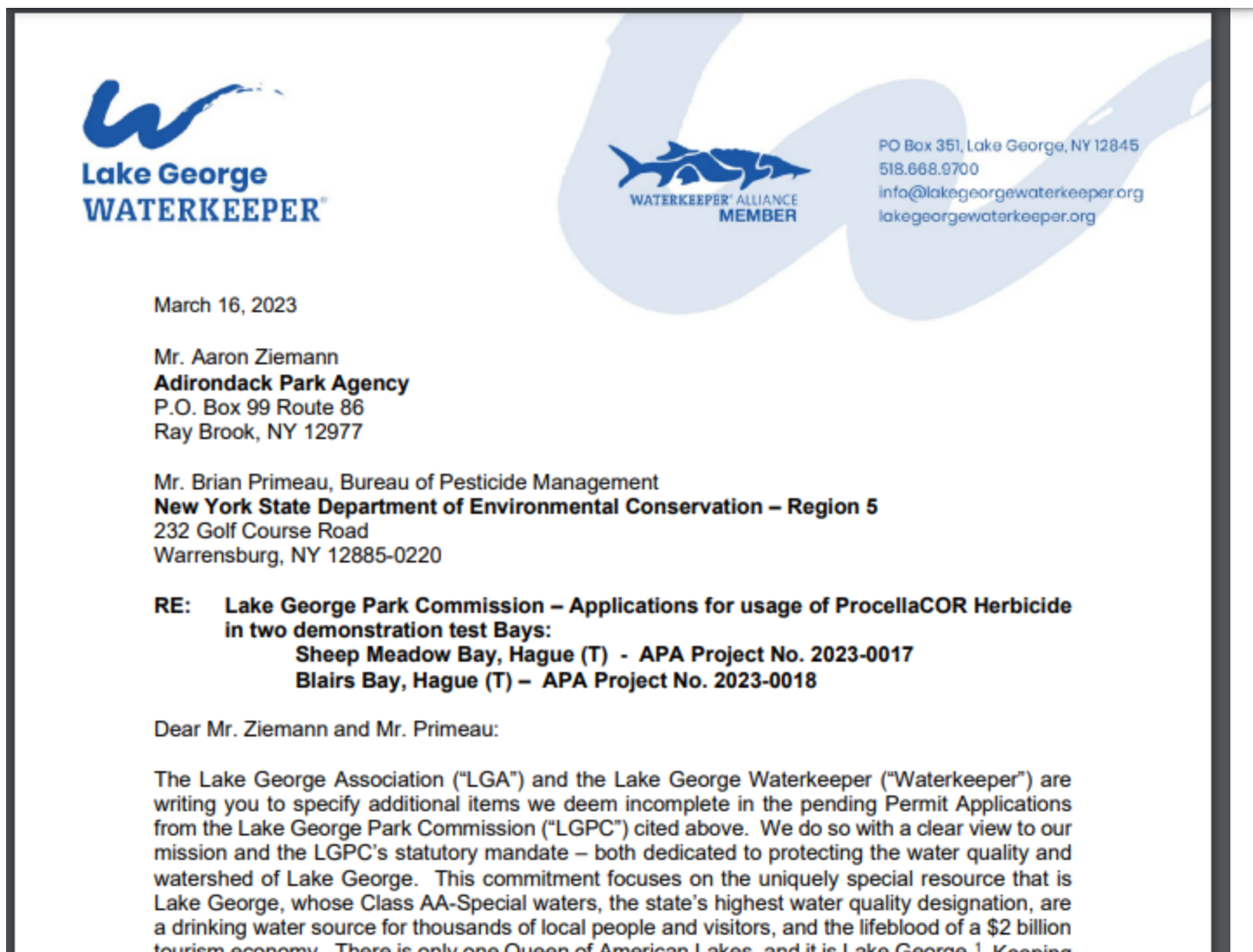
Next steps in the Adirondack Park?

While the Lake George Park Commission has suspended its application for approval until a court appeal moves forward, the APA will be asked soon to consider applications to use the herbicide in Lake Luzerne and Paradox Lake.

Both lake communities want to apply the herbicide to at least 30 acres of their lakes by the end of June. The [Lake Luzerne application is posted on the APA website](#), suggesting it will be a part of the agency’s May meeting agenda. The Paradox Lake plan is up for public comment with DEC and indicates it hopes to garner APA approval in May or June, enabling use by the end of June.

Many are suggesting it be used to complement hand harvesting methods, while others hope it can replace the annual investment depending on the lake.

A handful of other lake communities may try to submit an application this year or make plans for next season—if APA allows them to move forward.



[ProcellaCOR-Application-Incomplete-3-16-23](#) Download

Should APA conduct a new adjudicatory hearing, this time on ProcellaCOR?

Some advocacy groups are urging the agency to do so.

APA's consideration of herbicide permits has fueled calls for the agency to conduct its first adjudicatory hearing in over a decade. Those hearings collect evidence about the project and are the only way APA can deny a permit.

The Adirondack Council and Protect the Adirondacks have argued APA should use the hearing process to gather more information about ProcellaCOR and its potential impacts before opening the gates to its widespread use in the park.



Zachary Matson

Zachary Matson has been an environmental reporter for the Explorer since October 2021. He is focused on the many issues impacting water and the people, plants and wildlife that rely on it in the Adirondack Park. Zach worked at daily newspapers in Missouri, Arizona and New York for nearly a decade, most recently as the education reporter at the Daily Gazette in Schenectady.

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Comments



Ellen says

July 17, 2023 at 7:40 pm

Great article! We are fighting EWM in our NW Wisconsin lake and used ProcellaCOR once with great results. We have now been stopped with future use of ProcellaCOR by the local Tribal DNR as they found a small patch of wild rice that is protected. Do you have any experience with this situation?

Reply



Jerry says

January 2, 2024 at 9:08 pm

Well written article. I'm looking to become more knowledgeable on the use of Procella, as the Town of Caroga in the Adirondack Park have approved the use of Procella in East and West Caroga Lakes, where I have property on the lake.

The approval was done through a notification that was sent to 400 residents in early December (heard 12/10). Current understanding is that any questions, concerns or objections needed to be sent in 21 days. I did not receive the notification, so I cannot verify the sent date and the 21-day required response time. I was told by the town hall the notification is on their

website, but was unable to find it. Requiring a short-term response, especially over the holidays also raises concerns. A no response is considered approval.

My concerns are as follows:

1. Short term effects (1-2 years) to the lake, swimming, eating the fish, drinking water and impacts to children
2. Long term effects are the same as short term. Would like to know how long Procella has been in use at a lake(s), has it permanently eliminated Eurasian watermilfoil or are multiple chemical applications needed, how often and what have been the results?
3. Also, have been told this chemical sinks to the bottom of the lake and does not get moved around with the water currents. I find this hard to believe, but again looking to become more knowledgeable.

Thank You in advance for any insights.

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