

ProcellaCOR FAQ

What is ProcellaCOR?

ProcellaCOR is a cutting-edge aquatic herbicide used for management of invasive aquatic vegetation in lakes, reservoirs and ponds. It was formally approved by the U.S. Environmental Protection Agency in 2017, and then by New York State in 2019, and has been incredibly effective at controlling and even eliminating invasive Eurasian watermilfoil infestations, without impact to native plant and animal populations. It is applied at a dosage of approximately 7 parts per billion, which is 1,000 times less dosage than the aquatic herbicide previously approved by the Adirondack Park Agency. Following application, there are no restrictions on potable water usage (drinking water) or on contact recreation such as swimming.

How does ProcellaCOR work?

ProcellaCOR is applied directly into the water at the depth of the invasive plants. It is a systemic herbicide, meaning that the plant takes through its entire structure and roots. The plant dies off over a period of two to four weeks and breaks down naturally. ProcellaCOR itself is short-lived, and also breaks down naturally and quickly, within 3-4 days.

Why is ProcellaCOR being considered for use in Lake George now?

ProcellaCOR is being considered for use in Lake George to address areas of the lake that hand harvesting has been unable to effectively manage. ProcellaCOR is not planned to replace hand harvesting on Lake George, but rather to supplement it in areas with dense enough stands that physical removal is unfeasible.

The Lake George Park Commission and partners have been funding the physical removal of Eurasian milfoil for decades, since the late 1980's. These efforts primarily consist of hand-harvesting the plants, which consists of a diver pulling each individual plant out by the roots and removing it from the lake. While this method has overall been successful in many areas of the lake, not all areas respond well to these efforts and grow back over a short period of time. Eurasian milfoil that is rooted in rocky areas is particularly difficult to manage, as the roots cannot easily be removed. Hand harvesting milfoil is also very expensive on a large scale, at a cost of \$8,750 per week for each diver removing the plants. The 2022 contract for hand harvesting milfoil is anticipated to be approximately \$300,000. The previous three years' milfoil management on Lake George exceeded \$1.2 million dollars, and that amount of funding is unsustainable for the long-term.

What types of regulatory review has ProcellaCOR undergone?

ProcellaCOR was developed in 2010, and was subject to dozens of peer-reviewed scientific studies for several years, leading up to its ultimate approval by the US Environmental Protection Agency in

2017. The active ingredient of ProcellaCOR, florpyrauxifen-benzyl, has been utilized worldwide for several years as an herbicide on food crops such as rice. The New York Department of Environmental Conservation approved ProcellaCOR for use in 2019. Much of the science surrounding ProcellaCOR and its subsequent approvals are on the LGPC website.

Where and when are the ProcellaCOR Treatments in Lake George proposed?

A demonstration of ProcellaCOR is planned for two bays: 1) Blairs Bay, Glenburnie, Town of Putnam and 2) Sheep Meadow Bay, Huletts Landing, Town of Dresden. Both of these treatment sites have dense beds of milfoil that have not responded well to hand harvesting and plastic barriers historically. The Blairs Bay application is approximately 4 acres in size, and the Sheep Meadow Bay site is 3.6 acres. Both applications will be conducted on the same day in early to mid-June when the invasive milfoil plants are just starting to emerge for the season. The applications will take only about 30 minutes for each site.

How much is ProcellaCOR is proposed to be applied to the Lake?

The effective dosage rate for ProcellaCOR is staggeringly low, at 7.7 parts per billion. This amounts to a dosage that is 1,000 times less than the previous generation of aquatic herbicides. Only a few gallons of the product will treat the milfoil-affected areas of 3.6 acres (Sheep Meadow Bay) and 4.0 acres (Blairs Bay). The herbicide would be released directly into the water at depths of 8-10 feet to achieve the concentration over the area of the Eurasian milfoil bed. ProcellaCOR breaks down quickly and will be undetectable in the lake within a few days.

What are the risks to human health?

None. The USEPA registered ProcellaCOR as their lowest category of risk ('reduced risk') and identified no risks of concern to human health. Toxicology studies found no adverse acute or chronic effects. The EPA concluded that drinking water exposures to ProcellaCOR do not pose a human health risk and no federal maximum allowable drinking water concentrations were created (i.e. no drinking water restrictions). The observed half-life of the product is 2.6 days in aquatic environments, and EPA and DEC both concluded there is no hazard or concern for metabolites and degradates. The EPA's findings and an exemption from maximum tolerance can be found here: <<https://www.federalregister.gov/documents/2019/09/26/2019-20530/florpyrauxifen-benzyl-exemption-from-the-requirement-of-a-tolerance>>.

The Vermont Department of Health established a drinking water standard of a maximum of 3 mg/kg/day. This equates to a maximum concentration that is 400 times higher than proposed concentration to treat Eurasian milfoil in lakes (https://www.lakeiroquois.org/fileadmin/files/Milfoil/Documents/9_VTDOH_Review.pdf?482b7b3b42467861e81e20f2ce2774b7d0ff65f1).

Will there be a detrimental impact on wildlife and non-target aquatic plants?

No. ProcellaCOR is incredibly selective and has shown no impacts to aquatic animals, and almost no impacts upon other aquatic plants. The EPA set the maximum allowable application rate of ProcellaCOR at 48 ppb due to concern for non-target aquatic vascular plants. The proposed application rate for the demonstration sites in Lake George are approximately seven times lower than this threshold. The US EPA found no risk concerns for non-target wildlife, which was supplemented by University studies in Washington and North Carolina State.

Has this product been used in other lakes? If so, what was the outcome?

Yes. ProcellaCOR has been used in more than 200 lakes across the United States so far, including 50 in New Hampshire and 30 in New York State, with exceptional results and no impacts to public health or the environment. Dozens more are planned for 2022. Local lakes that have been treated with ProcellaCOR recently include Glen Lake, Saratoga Lake and Minerva Lake. All treatments received the required NYSDEC Permits, and Minerva Lake also required an Adirondack Park Agency permit similar to the Lake George proposal.

What is the nature of the demonstrations? Is this planned for future use?

The Lake George Park Commission has identified the sites of Blair's Bay and Sheep Meadow Bay for a limited demonstration of this product, due to their persistent growth of milfoil and limited size of the treatment areas. The Commission will quantify the impact of this treatment on the milfoil population and native aquatic vegetation, and will conduct the required regulatory water quality sampling as required in the NYS permits. The Commission will consider the success of these demonstration projects and any non-target impacts identified before considering any additional treatment efforts in Lake George.