

Beseck Lake Herbicide Treatment of Aquatic Invasive Plant Eurasian Milfoil

Common Questions and Answers

Q Besides this Herbicide, were other means of eliminating Milfoil considered?

A Yes, over multiple years, several other methods of reducing invasive weeds, some of which have been used in other CT lakes, have been considered:

- Use of Sterile Grass Carp (a fish that eats large amounts of vegetation) was dismissed - the State would not issue a permit for their use; and the problem of keeping the fish from migrating downstream into Ellen Doyle Brook was very costly.
- Mechanical Harvesting was dismissed because of excessive cost and limited effectiveness - plants grow back because roots are not harvested.
- Hand Pulling, Raking or Harvesting - even divers have been used to eliminate Milfoil. All these options are highly cost would be prohibitive for full Milfoil removal.
- Broad based herbicides were dismissed because of the likely loss of significant amount of plant life to the lake fishery.
- Benthic barriers - mats that are placed on the lake bottom - have been used at the Beseck Lake Town beach effectively to control growth of plants in a small area. Broader use of benthic mats is un-economical and would require site specific Department of Energy & Environmental Protection (DEEP) permits.

Q What is this herbicide and how does it work?

A ProcellaCOR which is an aquatic herbicide used for management of invasive aquatic vegetation in lakes. It was formally approved by the U.S. Environmental Protection Agency in 2017, and by the CT Department of Health in 2018.

- ProcellaCOR is a herbicide that eradicates specific lake plants, (in our case it is specific to Milfoil), but does not impact native aquatic species.
- It is a systemic herbicide, meaning that the plant takes up the herbicide through its entire structure and roots. causing dieback of the roots and shoots, resulting in longer term control. The plant dies off over a period of two to four weeks and breaks down naturally.

Q Will it kill all/many of the lake's plants?

A No, ProcellaCOR is specific to dicot plants - In Beseck Lake we have only Eurasian Milfoil that will be affected. For example, another invasive - curly leaf pondweed - will not be affected, nor will the many native plant species.

Q Will the lake be shut down during/after treatment?

A Yes, out of precaution, we will close the lake (only) on the day of application or as required by DEEP.

- ProcellaCOR itself is short-lived, and breaks down naturally and quickly, within 3-4 days. Following application, there are no restrictions on potable water usage (drinking water) or on contact recreation such as swimming.

Q Will it kill the fish?

A No, the herbicide is non-poisonous to all fish varieties. Reduction in Milfoil will reduce the food supply by removing only Eurasian Milfoil. With plentiful other native plant life in the lake, we do not expect that there will be any appreciable effect on fish.

- The dead milfoil can sink to the bottom and cause oxygen depletion due to plant degradation. This can be locally hazardous to fish. Water bodies containing very high plant density should be treated in sections to prevent the potential suffocation of fish. (Source: Massachusetts ProcellaCOR restrictions)

Q Can I swim in the lake?

A Yes, the CT- Department of Health has determined that there is no human health effects from ProcellaCOR when applied to a lake in the specified concentrations.

Q How frequently are regular applications needed?

A The manufacturer guarantees the reduction/elimination of Milfoil for 3 years. Routine plant surveys conducted by certified botanists contacted by the Town, will determine the success rate and when/if an additional application is necessary.

Q Who will follow-up on this in 2026 if a next application is necessary?

A The Beseck Lake Environment Committee has been looking out for lake issues since 2014, and will continue to coordinate surveys and identify needed actions.

Q How much will it cost? How is this being funded?

A A contract is in place with All Habitat Services, LLC for the application of the ProcellaCOR at the cost of \$24,616.00. Also, required by DEEP, as a part of this project is a pre-treatment and post treatment survey which be completed by The Connecticut Agricultural Experiment Station (CAES). The cost for each test is \$2260.00.

Concerning the funding, the Beseck Lake Environment Committee and the Town applied for and were awarded, in July of 2022, a State DEEP grant to combat aquatic invasive species. The grant is for a total of \$29,000.

If necessary, adequate, above grant costs are budgeted/have been set aside in the Town Capital and Non-recurring Fund.

Q Is a Department of Energy & Environmental Protection (DEEP) permit required for this application of the ProcellaCOR in a state-owned lake?

A Yes, The Environment Committee and the Town applied for and received the required DEEP permit for the treatment, 08/09/2022. It is a three-year permit.

Q What is the timetable for the application?

A The pre-survey will be done in June 2023 by the Connecticut Agricultural Experiment Station's Aquatic Invasive Species program staff. All Habitat Services, LLC will conduct the application in July 2023 during the Eurasian Milfoil's high-growth season.

Q Are other preparations needed prior to the application?

A Yes, All Habitat Services will publish a Legal notice announcing the proposed application date(s) and water use restrictions. AHS will electronically notify DEEP and the Town of Middlefield within 48 hours of the proposed treatment application dates. AHS will post notification at the property in compliance with regulation noting any temporary water use restrictions.

Q Do we have other invasive species in Beseck Lake? Is anything being done to eliminate them?

A According to our 2021 aquatic plant survey, Beseck Lake has 15 varieties of aquatic plants.

- There are only 3 invasive (non-native) species: Eurasian Milfoil, Curly Leaf

Pondweed, and Brittle Naiad. Treatment of these invasives will be next step programs to be studied by the Environment Committee.

- We have seen only one species, Potamogeton vaseyi, that is on the State's endangered species list. It will be monitored before and after.
- Of the 15 plant species encountered, none but Eurasian Milfoil will be affected by this very specific herbicide.
- In addition, this herbicide will have no effect on the occasional blue-green algae blooms on the lake.

Q Will there be a problem with my dog (drinking or playing) in the water?

A As a precaution, we recommend not drinking or playing in the water the day of the treatment.

HISTORY OF OTHER PROCELLACOR TREATMENT SITES

ProcellaCOR has been used in over 200 lakes across the United States, including over 50 in New Hampshire and 30 in New York state.

- Solitude Lake Management publicized their experience with ProcellaCOR in 2021. LINK- <https://nysfola.org/wp-content/uploads/K.-Sliwoski-NYSFOLA-presentation-2021.pdf>

These applications were: for EWM=Eurasian watermilfoil and VWM=variable watermilfoil

TREATMENT SITES

- Maine - 2 treatments, 2 sites, EWM & VWM
- New Hampshire - 60 treatments, 47 sites, primarily VWM
- Massachusetts - 10 treatments, 8 sites, EWM & VWM
- Rhode Island - 1 treatment, 1 site, VWM
- Connecticut - 6 treatments, 5 sites, EWM & VWM
- New York - 11 treatments, 10 sites, EWM
- Vermont - 10 treatments, 8 sites, EWM & HWM
- In 2021, the Army Core of Engineers applied the herbicide to East Brimfield Lake, just over the state line in Sturbridge, MA

WHERE IN CONNECTICUT HAS IT BEEN USED:

- Recently in Bashan Lake in East Haddam with excellent success.
- Lake Meahah, in Cortland, CT applied Procellacor in 2020
- 2020/1 - Lake Zoar near Shelton, CT
- 2021 - Amos Lake in Preston, CT by the Pond and Lake Connection
- Lake Quassapaug in Middlebury, CT is moving forward with a 10 acre application this year - 2023.
- Vernon is planning application of ProcellaCOR at Bolton Lake in 2023