

# BIG LAKER

BIG LAKE NEWSLETTER

SUMMER 2020

*The following information has been provided by Skagit County Public Works Department and the Lake Management District No. 1 (LMD 1) Advisory Committee to the residents of the Big Lake LMD with the intent of increasing public awareness and involvement related to lake management issues.*

## Aquatic Plant Management

### Noxious Aquatic Plant Management

Since the original formation of the Big lake LMD back in 2001, progress continues to be made in the effort to control **noxious aquatic plants** which can quickly take over a lake if not kept in check. Only small patches of noxious aquatic weeds remain. Targeted noxious species in Big Lake include: Eurasian Milfoil, Brazilin elodea, fragrant white water lilies, yellow flag iris, and purple loosestrife.

### What is the Treatment Schedule?

- **Pre-Treatment Survey: Early June**
- **Submersed Aquatic Weed Control:** After **June 15th** per fish timing window restrictions to protect spawning or incubating salmonids in the lake. Exact treatment date depends on weather and survey results. This year, the plant growth didn't really take off until late June, so the treatment didn't take place until **July 13 -14.**
- **Lily, Iris, and Purple Loosestrife Control:** After flower-heads are in bloom. **Mid-July**
- **Treatment Follow-up Survey: Mid August**  
The contractor will conduct another survey later in the season to determine if a second treatment might be necessary.
- **Post-Treatment Survey: September**

### Native Aquatic Plant Management

Although native aquatic plants are a critical component of a healthy lake, the excessive growth of native plant has become increasingly problematic for some recreational lake use, calling for a limited degree of control with contact herbicides.

### Will the Entire Lake be Treated?

Per Washington State regulated permit restrictions, treatments for controlling native aquatic plants in Big Lake are **limited to just 30% of the littoral zone (approximately 10,000 feet of shoreline)** with contact herbicides. Noxious weeds however, can be controlled lake-wide with systemic or contact herbicides. Contact herbicides do not kill the plants at the roots, but will help reduce the plant densities over time.

### How Soon Will We See Results?

Contact herbicides require **at least two hours of contact** to work. Plants will start to visibly die back after just a **few days**. Full results will take **one to two weeks**.

Would you like to receive Treatment Notifications for Big Lake via email?  
Contact [tracya@co.skagit.wa.us](mailto:tracya@co.skagit.wa.us)

**For Best Results, Please Limit Boat Use During Herbicide Applications!!**

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# Aquatic Plant Management Continued...

## Lake Management Online Resources

- **Blueprint for a Lake Friendly Landscape:**

[www.ecy.wa.gov/programs/wq/plants/lakes/landscaping.html](http://www.ecy.wa.gov/programs/wq/plants/lakes/landscaping.html).

- **The Washington Lake Book:**

[www.fortress.wa.gov/ecy/publications/documents/9710.pdf](http://www.fortress.wa.gov/ecy/publications/documents/9710.pdf)

- **Lakes & Algae Management:**

[www.ecy.wa.gov/programs/wq/plants/algae/lakes/index.html](http://www.ecy.wa.gov/programs/wq/plants/algae/lakes/index.html)

- **Algae & Public Health Risks:**

[www.doh.wa.gov/CommunityandEnvironment/Contaminants/BlueGreenAlgae](http://www.doh.wa.gov/CommunityandEnvironment/Contaminants/BlueGreenAlgae)

- **How to Report and Test Algal Blooms:**

[www.nwtoxicalgae.org/ReportBloom.aspx](http://www.nwtoxicalgae.org/ReportBloom.aspx)

- **Toxic Algae Database:**

[www.nwtoxicalgae.org](http://www.nwtoxicalgae.org)

- **Annual Aquatic Weed Program Reports for Big Lake:**

<https://www.skagitcounty.net/LMD1>

## What Triggers Excessive Algae and Weed Growth?

- **\*Too much phosphorus** from:
  - ◇ Fertilizers
  - ◇ Pet and animal waste
  - ◇ Leaking septic systems
  - ◇ Sediments
  - ◇ Shoreline erosion
  - ◇ Decaying plant material
  - ◇ Soaps and detergents



Other factors include:

- Warmer water temperatures
- Lower lake levels
- Good water clarity

## What Can You Do?

- ◆ Reduce the use of fertilizers or try phosphorus-free products
- ◆ Remove grass clippings/yard waste
- ◆ Pick up pet waste
- ◆ Wash cars at the carwash not driveways
- ◆ Plant shoreline plants to filter runoff
- ◆ Cover bare soil and fix eroding areas
- ◆ Do not feed waterfowl
- ◆ Remove the weeds along your shoreline with a rake (*Be sure to remove all plant fragments to prevent spreading and review the **Hydraulic Project Approval (HPA) Pamphlet** as required by the Washington Department of Fish and Wildlife. <http://wdfw.wa.gov/publications/0178/wdfw01728>.*)



## What is that green slimy, stringy, gooey stuff in the lake?

Some of you may have noticed a bunch of green slimy stringy stuff in Big Lake recently. It is called filamentous green algae, also known as "pond scum". The fine green filaments can be free floating or attached to rocks, debris, or other plants and often form dense floating cottony mats. Herbicide treatments for filamentous algae were not planned this season because the algae typically decays on warm sunny days.



## ♥ Love Your Lake Club!

Are you concerned about the water quality in Big Lake? Would you like to be part of the solution? Show Big Lake some love by joining the "Love Your Lake" club. This select group of citizens in the Big Lake community will provide advice and feedback as we work on ways to improve water quality over the next year or so. We won't use much of your time, but your feedback is greatly appreciated and extremely valuable to the success of the program. For more information contact **Karen DuBose** at: [kdubose@co.skagit.wa.us](mailto:kdubose@co.skagit.wa.us).

## Citizen Advisory Committee Members

- **Tammie Grobschmit**
- **Nancy Gruel**
- **Jim Hanson**
- **Wesley Miller**
- **Jeff Prestmo**
- **Rick Tesarick**

## About the LMD 1 Citizen Advisory Committee

LMD 1 has a citizen advisory committee composed of volunteers who reflect various geographic distribution within the boundaries of the LMD. The Committee works in cooperation with County staff, to provide citizen input on management decisions within the context of the LMD charter. If you are interested in joining the Advisory Committee, or being more involved in your Lake Management District, contact: [tracya@co.skagit.wa.us](mailto:tracya@co.skagit.wa.us).

## Noxious Aquatic Plant Species in Big Lake



### Eurasian Milfoil

Milfoil is a huge concern because it can spread easily and rapidly by plant fragments hitchhiking on boats, trailers, and fishing equipment and can stay alive for weeks if kept moist! Milfoil can also remain undetected beneath lily pads and spatterdock. There are just a few small patches of Eurasian Milfoil growing along the southwest shoreline of Big Lake. The Milfoil will continued to be monitored and treated with a systemic or contact herbicide each year to keep it under control.



### Brazilian Elodea

Up until 2009, Brazilian elodea was the dominant noxious aquatic plant in Big Lake and was the primary reason LMD1 was first established. Brazilian elodea does not produce any seed, but spreads very quickly by plant fragments hitchhiking on boats, trailers, and fishing equipment and can be carried by waterfowl. The plant fragments can re-root and form thick mats in the lake. This invasive aquatic weed was completely eradicated from Big Lake for several years until a small patch was recently re-discovered in 2019 in the southern portion of the lake. It will continued to be monitored and treated with herbicides to keep it from spreading.



### Purple Loosestrife and Yellow Flag Iris



Purple loosestrife and Yellow flag iris can both form dense stands along the lake shoreline and outcompete native wetland plants and potentially clog the lake outlets. Purple loosestrife spreads rapidly via seeds, roots and stem fragments that can be carried by wind, water, and animals. Yellow flag iris spreads by seeds and rhizomes. Yellow flag iris is less of priority to control than purple loosestrife, so it will only be treated on properties that request it.



### Fragrant White Water Lilies

Fragrant water lilies can form dense stands in the lake and become problematic around docks, boat launches, and swimming areas. They reproduce and spread by seeds and rhizomes. The density and size of noxious fragrant white water lily infestations has been greatly reduced since LMD1 was first established. The herbicide treatments are applied when the pads are at the surface and flowering, and when rain, wind and wave conditions are minimal. Homeowners can control lilies by hand pulling or cutting using the HPA guidelines: [wdfw.wa.gov/publications/0178/wdfw01728](http://wdfw.wa.gov/publications/0178/wdfw01728).



# Native Aquatic Plant Species in Big Lake

## Elodea Canadensis



*Elodea Canadensis*, is starting to become one of the more dominant native aquatic plants in Big Lake this year compared to previous years. It is often confused with the invasive Brazilian elodea.



## Fern-Leaf Pondweed



*Potamogeton robbinsii*, commonly known as fern-leaf pondweed, is currently the most dominant plant species lake-wide in Big Lake.

## Ribbon-Leaf Pondweed (*Potamogeton epihydrus*)



## Leafy Pondweed (*Potamogeton foliosus*)



## Tapegrass



*Vallisneria Americana*, commonly known as tapegrass. It is one of the dominant native aquatic plants in Big Lake and has proven to be very difficult to control. It doesn't seem to respond very well to herbicide treatments.

## Richardson's Pondweed (*Potamogeton Richardonsii*)



## AQUATIC WEED IDENTIFICATION RESOURCES:

- **Aquatic Plant Identification:** [www.Ecy.wa.gov/programs/wq/plants/plantid2/index.html](http://www.Ecy.wa.gov/programs/wq/plants/plantid2/index.html)
- **Washington State Noxious Weed Control Board:** [https://invasivespecies.wa.gov/find-a-priority-species/?\\_sft\\_priority-specie-type=noxious-weeds,aquatic](https://invasivespecies.wa.gov/find-a-priority-species/?_sft_priority-specie-type=noxious-weeds,aquatic)
- **Washington Invasive Species Council:** [https://invasivespecies.wa.gov/find-a-priority-species/?\\_sft\\_priority-specie-type=noxious-weeds,aquatic](https://invasivespecies.wa.gov/find-a-priority-species/?_sft_priority-specie-type=noxious-weeds,aquatic)