

Approaches for Homeowners to Install Barriers Against Vegetation During Drawdown

As you know, Cascade Water Alliance will draw down the Lake Tapps Reservoir to an elevation of approximately 530' at the beginning of 2018, with refill starting around mid-February.

This provides about a four week period of time where a substantial portion of the lake bed where plants grow will be dewatered, providing homeowners an opportunity to address milfoil growth with non-water based dry land strategies.

At our recent meeting with representatives of the Lake Tapps Community Council, information was requested as to what individual homeowners can do to control vegetation. While Cascade will continue to survey milfoil and utilize the best possible treatment options for Lake Tapps, there are also things homeowners can do to manage milfoil in front of their properties.

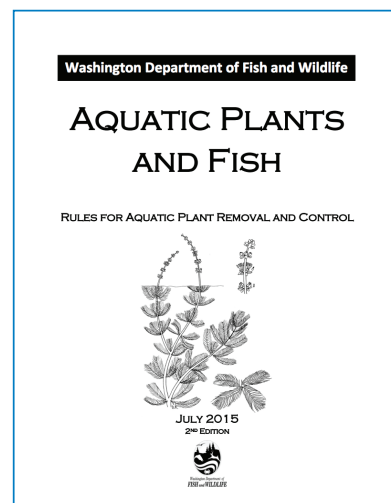
There are a wide variety of measures (biological, chemical, mechanical and manual) to address milfoil, one feasible strategy for homeowners would be the installation of bottom barriers on the lake bottom in front of their homes. A bottom screen or benthic barrier covers the sediment like a blanket, compressing aquatic plants while reducing or blocking light. Materials such as burlap, plastics, perforated black Mylar, and woven synthetics can all be used as bottom screens.

Simply by obtaining a Washington State Department of Fish and Wildlife (WDFW) pamphlet (link below) homeowners can learn how to install a bottom barrier under the authority of the pamphlet <http://wdfw.wa.gov/publications/01728/wdfw01728.pdf>

The following offers some approaches to bottom barriers. Property owners must follow rules outlined in the WDFW Aquatic Plants and Fish: Rules for Aquatic Plant Removal and Control ("pamphlet") when addressing aquatic native plants. <http://wdfw.wa.gov/publications/01728/wdfw01728.pdf>


- **Do-it-Yourself "Off-the-shelf"** A homeowner may decide to install a bottom barrier on their own. "Off-the-shelf" or "ready made" bottom barriers are available from a variety of vendors (see <http://www.ecy.wa.gov/programs/wq/plants/management/aqua023.html> "Vendors who sell bottom barriers") Prices range from \$0.67 per sf to \$1.25 per sf. So, 1000 sf of coverage would cost a homeowner from \$670 to \$1250 plus their own labor to install. All ready-made barriers are made of synthetic materials and thus would have to be removed after a two year period of time according to WDFW requirements. All ready-made bottom barriers are reusable for multiple years.

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- **Do-it-Yourself “Build your own”** A homeowner may not only decide to install a bottom barrier, they may, in addition, decide to build the barrier themselves. In this situation a homeowner may choose from a variety of synthetic barriers (geotextiles, landscaping fabric, etc.) as well as a variety of biodegradable barriers (burlap, sisal, coir, etc). Building your own barriers will cost the homeowners less up front than ready made barriers but a significant amount of time will have to be spent building the barriers. For the homeowner it is likely that the choice between buying a ready-made product versus building your own is actually a choice between time and money. The Dept. of Ecology provides instructions on how to build your own bottom barrier. See <http://www.ecy.wa.gov/programs/wq/plants/management/aqua021.html>
- **Have someone else do it** Homeowners can also decide to pay a vendor to install a bottom barrier for them. The Dept. of Ecology provides a list of vendors who install bottom barriers in the Pacific NW. See <http://www.ecy.wa.gov/programs/wq/plants/management/aqua023.html>

For the homeowner the first choice will be how much time they want to spend on the project. A homeowner's time preference will influence which of the alternatives a homeowner chooses. Once that choice is made the homeowner can decide how much money they want to spend on the project. All things being equal the less time a homeowner wants to spend on a bottom barrier project the more expensive the project will be.

A scenic photograph of Lake Tapps at sunset. The sun is low on the horizon, creating a bright orange and yellow glow that reflects on the calm water. A dark line of trees separates the lake from the background, where a snow-capped mountain peak is visible under a clear sky. In the foreground, a small wooden dock or pier extends into the water on the right side.

Our common goal is a clean and healthy lake. By working together, we can keep Lake Tapps a beautiful, regional resource.