

Managing the Eurasian Watermilfoil on Farlain Lake

Where are we at and what's next?

By Peter Andrews

The following article provides a report on our efforts to manage this invasive aquatic plant in 2018 and indicate what's next.

Since we began combating Eurasian watermilfoil in our lake five years ago we have relied on hand harvesting individual EWM plants from the pioneer infestation that was discovered in 2012. Hand harvesting, while effective and environmentally friendly, is time consuming. It is also costly as we are required by Ontario Government regulations to use contracted commercial divers to undertake the work.



Last year the FLCA developed a prototype Diver Assisted Suction Harvesting (DASH) system to expedite the transport of harvested EWM plants to the water surface via a suction hose. The harvested plants are collected on a floating work platform and disposed of on land. DASH does not remove lake sediments. With the experimental DASH unit we were able to remove in excess of 5200 lbs. of EWM from the pioneer colony in July 2017.

However, post harvesting assessment of the pioneer colony showed the growth of EWM was outpacing the hand harvesting efforts. Additional infestations were discovered in at least two other areas on the lake.

Based on our knowledge and experience from 2017 a more aggressive approach was taken in 2018. Included in this action was the purchase and reconfiguration of a used pontoon boat which provided an invaluable multi-purpose tool for EWM searching, mapping, and marking, deploying the plant dispersal containment curtain around the work sites, serving as the work platform for the FLCA's prototype DASH system, and assessing the results of the work undertaken this year.



In July, EWM in the pioneer colony and one other offshore infestation were treated with the aquatic herbicide *Reward* by a licensed applicator under a permit issued by the Ministry of Environment, Conservation, and Parks. *Reward* is the only aquatic herbicide permitted by Health Canada to manage invasive and nuisance aquatic plants. It is a contact herbicide that only kills the plant tissues (e.g. leaves, stems) exposed to the chemical but does not kill the EWM and native aquatic plants. Since it is heavier than water, it sinks, reaching the targeted area rather than spreading across the surface of the water.



The FLCA contracted commercial divers and their dive boat to work on the pioneer colony August 25-27. Extra funding this year enabled the commercial divers to be hired for three days rather than the two days as in past years.

An experimental project involving biodegradable bottom barrier was undertaken in a limited area as an installation test.

Prior to deployment of the burlap barrier, the divers hand-cut the dense EWM vegetation near the base of the plant allowing a roll of burlap to lay flat over the crowns (root mass) of the EWM plants. Since bottom barriers prevent sunlight from reaching aquatic plants, EWM plants will die within several months. With divers in the water aided by FLCA volunteers on the surface, the roll of burlap barrier was rolled out along the lake bottom to cover the monoculture of EWM plants.

The divers also used the FLCA DASH system to remove smaller clusters of EWM on the perimeter of the dense EWM in the pioneer colony. During the three day control event, the FLCA pontoon boat supported volunteer divers hand harvesting EWM plants from the bay at the north end of the lake.

The combined efforts of hand cutting EWM and hand harvesting EWM using the DASH system resulted in 15 cubic yards of EWM biomass being removed from the pioneer colony. This amount of invasive aquatic plant material would be equivalent to the amount of material carried in a standard two axle dump truck. Removing the EWM from the pioneer colony at the end of August would restrict the plant's ability to 'auto fragment' pieces of the plant at the end of its growth cycle. Plant fragments are carried by wind and wave action to other parts of the lake to possibly form into new plant colonies.





The FLCA pontoon boat was used to assess the three key managed EWM infestations. FLCA volunteers discovered three new offshore infestations; one near the Timcourt Drive shoreline and the other two mid-lake at the south end of Farlain Lake. It is assumed that smaller scattered EWM clusters exist throughout the lake but have yet to be discovered.

While the spread of EWM throughout the lake is troublesome, we have estimated the amount of known EWM in the lake to be approximately .4% of the lake bottom. If the EWM is allowed to become the dominant aquatic plant in the lake, existing wildlife, swimming and boating will all be in jeopardy. A good illustration is the number of dead fish that were caught up in the EWM pulled out of the lake by the volunteers.

After assessing our control efforts to date, the FLCA has written a draft integrated management plan that will address the spread of EWM in Farlain Lake. The draft plan outlines management options, benefits, risks, effectiveness, and costs. It will be provided to the Ontario Ministry of Natural Resources and Forestry (MNR) for review and comment as Farlain Lake is Crown Land under the care of MNR. The final plan will guide management actions and keep EWM populations low and prevent spreading to other areas of the lake. Our experience and knowledge may help other communities who are also struggling with this invasive plant. We will continue to keep you informed of our plans as they evolve and we receive any necessary approvals from the respective government organizations.

One of FLCA's biggest challenges is to secure sustainable funding to support our ongoing EWM control efforts. To date, without financial support from the Provincial Government, funding for this important project derived from donations (\$27,000) raised through a direct mail campaign aimed at key stakeholders in the community and an \$8,000 grant (used to purchase the pontoon boat) from Tiny Township. The FLCA submitted a grant application to the Ontario Trillium Foundation (OTF) for funding to cover our EWM control efforts for the period 2019-2021. We have received word that the grant was approved. A formal announcement is forthcoming. Without sufficient and continuous funding our EWM control work will be constrained resulting in the further spread of EWM in our lake. Successful management of the EWM will require a long-term commitment of both time and resources by the FLCA, partners such as Tiny Township and the Severn Sound Environmental Association, and members of the lake community. Planning is well under way for 2019 using multiple strategies based on our assessment of 2018 management efforts.

What can you do to help?



- Stay informed through FLCA communication and the web site. Ask questions and raise any concerns you may have.
- Learn how to identify the EWM and report infestations to the FLCA at inquiries@farlainlake.ca.
- Donate! Controlling the EWM will be an ongoing process beyond 2021!
- Avoid the designated infested areas with boats to minimize spreading of the plant – and ensure your family, friends, renters and guests do the same. Educate them.
- Volunteer to help with the control efforts – watch for information on what we need come next summer.

There's the old saying "It takes a village to raise a child." It definitely takes a community to fight EWM!