

AQUATIC PLANT REMOVAL PROJECT PROGRESS REPORTS

Articles submitted to *Tri-Village BUZZ* by Trustee Laurie Kay

MARCH 2016

Native Aquatic Milfoil Aquatic plants are an important part of the biology of our lakes. They provide food, habitat, help stabilize the bottom and foreshore and aerate the water. But they can also have undesirable effects when they are too abundant and in the wrong place. Right now native milfoil in Wasa Lake is abundant and in the wrong place. Eradication is impossible and prevention and control of further growth are necessary. Following a public meeting in September 2015 the WLLID has agreed to look into the problem and studied areas of prevention and control, and applied to Ministry of FLNRO for Removal of Native Milfoil. We have received approval.

WLLID is compiling and will make available on the website and locally a list of prevention measures that all lake users should be aware of and share, and will hopefully practice.

WLLID trustees have learned about accepted control methods (manual root pulling being the most effective), and contacted divers to determine if root pulling would be effective in deep parts of Wasa Lake. A small committee is considering other options.

We have:

- quotes on aquatic plant cutters and rakes -received some great homemade cut and rake equipment;
- been given the use of E.K Invasive Plant Council aquatic plant equipment
- decided to concentrate on the large deep water patch, mid lake, south of the boat ramp
- received offers to help when control work starts from several lake users
- budgeted 2016 funds for associated costs
- applied to Columbia Basin Trust Community Initiatives Program for support.

A Wasa Lake that is accessible, healthy, with access to excellent, public, shared, safe, recreational water activities is the reason why the community continues to develop, and why thousands come to enjoy its waters. WLLID can steer the project but will require lots of volunteer help for all lake users. Stay in touch via the WLLID website for updates.

APRIL 2016

Since last report, a small committee met and discussed awareness / prevention and control.

Prevention/Awareness

A presentation on native aquatic milfoil identification, the positive and negative effects, factors effecting growth and spread, and some methods of control by residents in shallow private lake front properties will be made at the WLLID Annual General Meeting March 30th 7:00 p.m. at Wasa Community Hall. Information will also be available on the WLLID website.

Control

March and April is a waiting period for the best time to try some control measures. There is no doubt that manual hand pulling is the most effective method of control. So, the committee has requested our permit be extended to hand pull some of the milfoil growth in the small, shallow pond that is currently separated from the main lake at the south end. This is where the milfoil was first noticed. If effective, this method will be organized for voluntary work groups probably in late April early May when growth is visible. If hand pulling is ineffective manual cutting, raking and removing is the next option. We will have equipment on hand if we pursue this method. We have arranged the services of a SCUBA diver to check the feasibility of hand pulling the milfoil in the deeper patches at an appropriate time. There is some concern if this method will work in our very muddy lake bottom, but we need to find out. If ineffective we will look at other options of control. The WLLID has budgeted some funds for the project and we have also applied for some Columbia Basin Trust funding. The WLLID can't do this without your help. We need to see a community group with WLLID input and support eventually taking over the project. It is very likely that this will be an annual activity.

If you are interested in helping, write to WLLID Box 113, Wasa V0B 2K0, or email www.wasalake.ca, or call and leave your name and number message at 250 422 3288.

Volunteers are needed for

- Spreading native and invasive milfoil information
- Getting in the water;
- Working from the shore
- Working from a boat
- Collecting milfoil fragments
- Monitoring progress
- Finding new growth
- Transporting harvests
- Providing suitable boating, markers, signage, etc.
- Updating progress
- Celebrating success
- Providing safety
- Mapping locations
- Sharing with B.C. Parks
- Handing out pamphlets
- Phoning

MAY 2016

Aquatic milfoil does not usually start to grow until water temp is about 15° C. There was much milfoil lying dormant in the deeper water and some possible new growth in the very shallow areas. In Wasa Lake, it grows mainly in the soft muddy water bottom. Some hand pulling and raking from the shore line was attempted in the small pond at the south end of the lake in mid-April. Four feet from the shore line we were up to our knees in mud and sinking deeper. After one rake the water was black. When the water cleared the next day we could see that the pulling and raking had been quite effective. It is evident that where ever we work, in shallow or deep water we must work from a large, safe, floating pontoon or dock which can be moved with a small outboard motor. We need the use of a dock and small outboard motor from May to September. We are currently considering a couple of possibilities. Any suggestions or offers are appreciated. Our SCUBA diver will be here in early to mid-May to check the possibility of hand pulling in the deep water. Poor visibility from the mud will be a problem, but we need to check it out as it is considered the most effective. We noticed a very dense, widely spread aquatic plant in the main lake, slightly different to milfoil which we took to Cranbrooks Ministry of Environment office for identification.

JUNE 2016

WLLID was asked by residents at an invasive plant meeting to look into the northern native milfoil growth in Wasa Lake. We do not have European invasive milfoil. Native milfoil does provide habitat and some food for fish and water fowl. In abundance, however it can spread and adversely affect the activities the lake offers which in turn draw residents and visitors to the area. In late May the WLLID and volunteer residents will experiment on removing some milfoil. Permission has been granted by M.O.E. If successful, further attempts will take place later in summer when the lake level has dropped. For continued action a community group will have to be formed to establish and implement some form of aquatic plant management programme.

The WLLID is preparing a notice board and also pamphlets for distribution, with more information on location, identification, prevention and awareness. Milfoil is spread by fragmentation. At this time it is too low for boats to make contact. As the lake drops and the milfoil becomes visible we ask boaters to avoid the area by staying to the east side (mountain side) of the lake when passing by the bay on the west side, midway down the lake.

Aquatic plant growth is influenced by weather, nutrients and human activities. Measures such as cutting, pulling or using herbicides can control growth but the best way to combat excessive growth is awareness and prevention.

Temperatures, rainfall and snowpack are beyond control, but we can all help to control the growth if we

- provide access to the lake but also maintain a buffer zone of vegetation to grow along the shoreline, preventing soil erosion and reducing nutrients entering the lake
- reduce the amount of lawn and garden treatments near the lake shore and elsewhere in the lake's watershed. Aquatic plants gobble up phosphorus and nitrogen
- keep septic systems working properly and avoid leakage
- reduce bringing in the amount of foreign material for foreshore infilling

- follow the DRAIN, CLEAN and DRY message when taking boats out of any lake
- avoid power boating in known abundant plant growth area.

The other aquatic plant mentioned in last month's Buzz has been identified as a native macro algae called *Chara*. It is low growing. It is the dark areas you see in lower water.

JULY 2016

Since last month's milfoil update when we tried to hand pull from the shore and ended up to our knees in mud and sinking further, we experimented with two other methods of control to help determine the next steps. In early May, trustees, Laurie Kay and Nowell Berg, and four residents used a double headed raking method at the large patch at mid-lake south of the boat ramp. We worked from a very safe pontoon, with outboard motor on loan from a kind resident. Three of us raked, hauled up the milfoil and dumped it into a row boat alongside. Three other volunteers in small boats circled the pontoon scooping up broken fragments. We worked for about 2 hours in the one place, covering only a small area and filled the rowboat about one third which was taken ashore and then to the landfill where we had permission from RDEK to dump it. We were pleased to see that what we raked was easily 90% milfoil.

What did we find out from this experiment?

1. This method would be very time consuming in the large area which we have
2. It may have been easier to wait until the milfoil was longer
3. We would need many sessions over several weeks to get any control
4. It is very important to have many helpers scooping up fragments
5. Calm weather and clear water is essential
6. Very few other aquatic plants were disturbed
7. It would involve many volunteers
8. Not much cost is involved;
9. Raking would have to be done annually.

In late May, Tony Miguel, a former Wasa resident and ex diver arrived to offer his expertise. We used the same pontoon and motor, in the same area. Tony decided that since it was not deep, he could give us an idea of using scuba divers to control the milfoil just by snorkeling. For over an hour he dived and hand pulled milfoil, collecting it in a mesh bag. We emptied about 3 mesh bags and collected any floating fragments. Next, Tony just dived down wrapped his arms around the milfoil and came up. WOW! One armful was about the same as one mesh bag full. It was quite heavy to get it up onto the pontoon. He did this several times and within 5 minutes the amount he brought up was about one third of what 3 of us raked up in about 2 hours several weeks before. Tony commented that given time several scuba divers could make a big difference.

What did we find out from this second experiment?

1. The milfoil had 3 weeks to grow and was longer
2. Harvesting by the armful was very efficient, time wise
3. Using commercial divers would be extremely expensive
4. Control of fragments is essential
5. Visibility was slightly lowered after pulling
6. Over 90% of the plants pulled was milfoil
7. Less control should be needed annually.

So now we have some thinking to do before we move on. The committee will meet again in late July to discuss next steps.

Thank you to the following people who volunteered their time and equipment: Trustees Laurie Kay and Nowell Berg, and community members Chuck Anderson, Mike Blair, Richard Sellan, Mark Dixon, Ted Jolly, Tony Miguel, and Julie Holmes.