



## **Mitchell Lake Association**

### **Spring 2011**

I trust this letter finds everyone anxious for spring as we approach near record snowfalls. I personally am looking forward to golf, water activities and just warm or even hot weather. Looking back at 2010, we once again had a very good turnout at our 4th annual association meeting last September at the Chanhassen Legion with over 70 attendees and a presentation by Watershed District Chairman Perry Forster. We also had Cheri Nehl present on behalf of our association at the December Watershed Town Hall meeting. Cheri's presentation focused on the five successful shoreline restoration projects that were completed on Mitchell Lake.

Looking ahead for 2011, the Watershed District will continue its harvesting of weeds with a slightly different approach. The Mitchell Lake Board brought in consultants to review additional approaches to weed control other than harvesting with the end result to consist of a pilot herbicide treatment on approximately 13 acres. The herbicide selected is in wide use by various watersheds and also the DNR. It will be applied soon after the ice out and will target the invasive Curly Leaf Pondweed species. We will also once again host our annual April lakeshore cleanup outing. Please reference the articles in this newsletter for details on both events.

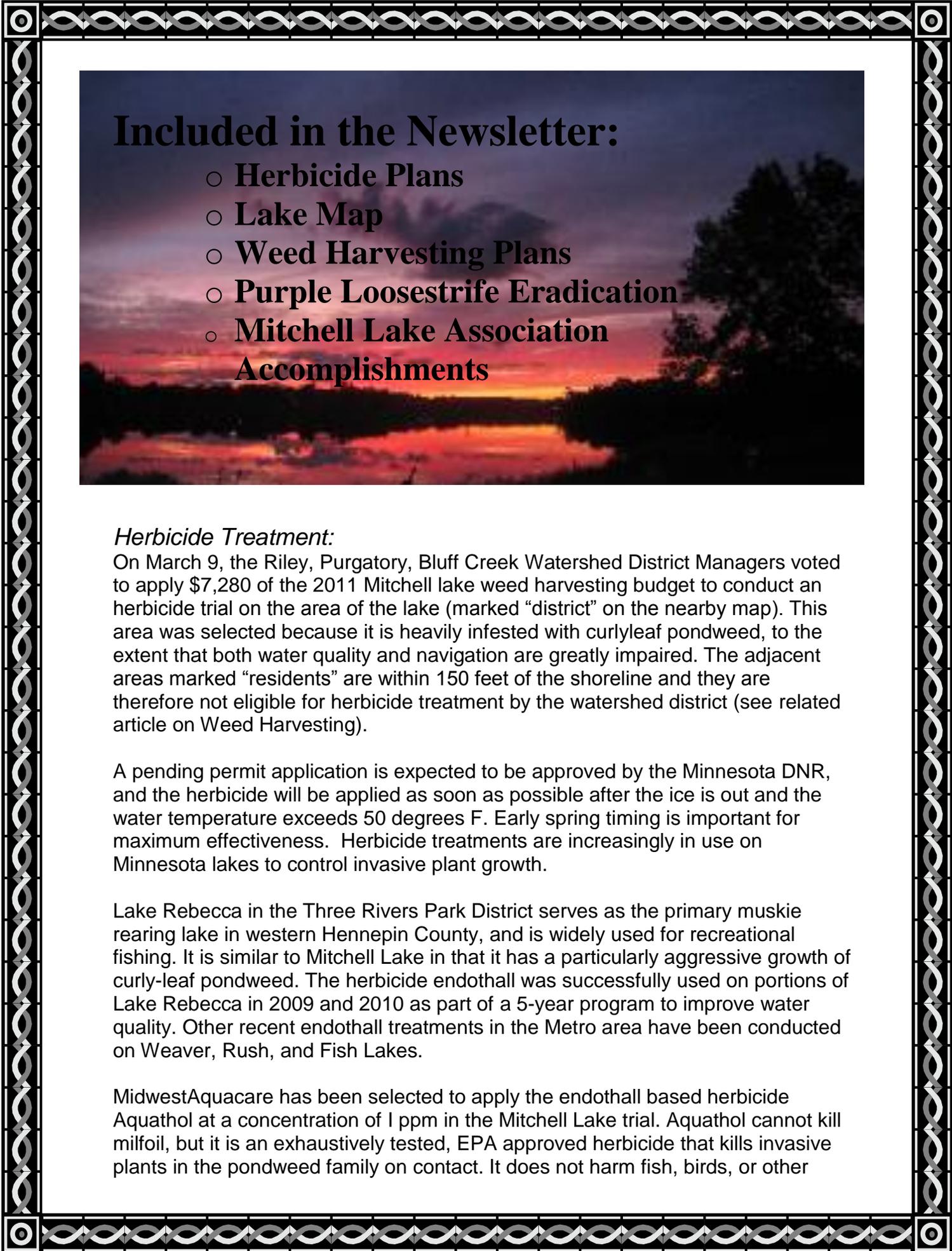
I would like to once again extend a thank you to all current paid members for your support of the Mitchell Lake Association. Please encourage your neighbors or those new to the lake to join our association - a simple way to help the cause of our clean water initiatives. Also, we continue to welcome your individual contributions and suggestions. Please consider your own lakeshore as a potential for restoration, or consider aerating your lawn once or twice a year to filter excess water run off and improve your lawn's appearance. Visit our web site for other ideas on how individuals can participate in the effort to clean up our lake. As we have already proved, individual contributions can and do make an impact.

***Jim Nehl***

Mitchell Lake Association President

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## Included in the Newsletter:

- **Herbicide Plans**
- **Lake Map**
- **Weed Harvesting Plans**
- **Purple Loosestrife Eradication**
- **Mitchell Lake Association Accomplishments**

### *Herbicide Treatment:*

On March 9, the Riley, Purgatory, Bluff Creek Watershed District Managers voted to apply \$7,280 of the 2011 Mitchell lake weed harvesting budget to conduct an herbicide trial on the area of the lake (marked “district” on the nearby map). This area was selected because it is heavily infested with curlyleaf pondweed, to the extent that both water quality and navigation are greatly impaired. The adjacent areas marked “residents” are within 150 feet of the shoreline and they are therefore not eligible for herbicide treatment by the watershed district (see related article on Weed Harvesting).

A pending permit application is expected to be approved by the Minnesota DNR, and the herbicide will be applied as soon as possible after the ice is out and the water temperature exceeds 50 degrees F. Early spring timing is important for maximum effectiveness. Herbicide treatments are increasingly in use on Minnesota lakes to control invasive plant growth.

Lake Rebecca in the Three Rivers Park District serves as the primary muskie rearing lake in western Hennepin County, and is widely used for recreational fishing. It is similar to Mitchell Lake in that it has a particularly aggressive growth of curly-leaf pondweed. The herbicide endothall was successfully used on portions of Lake Rebecca in 2009 and 2010 as part of a 5-year program to improve water quality. Other recent endothall treatments in the Metro area have been conducted on Weaver, Rush, and Fish Lakes.

MidwestAquacare has been selected to apply the endothall based herbicide Aquathol at a concentration of 1 ppm in the Mitchell Lake trial. Aquathol cannot kill milfoil, but it is an exhaustively tested, EPA approved herbicide that kills invasive plants in the pondweed family on contact. It does not harm fish, birds, or other

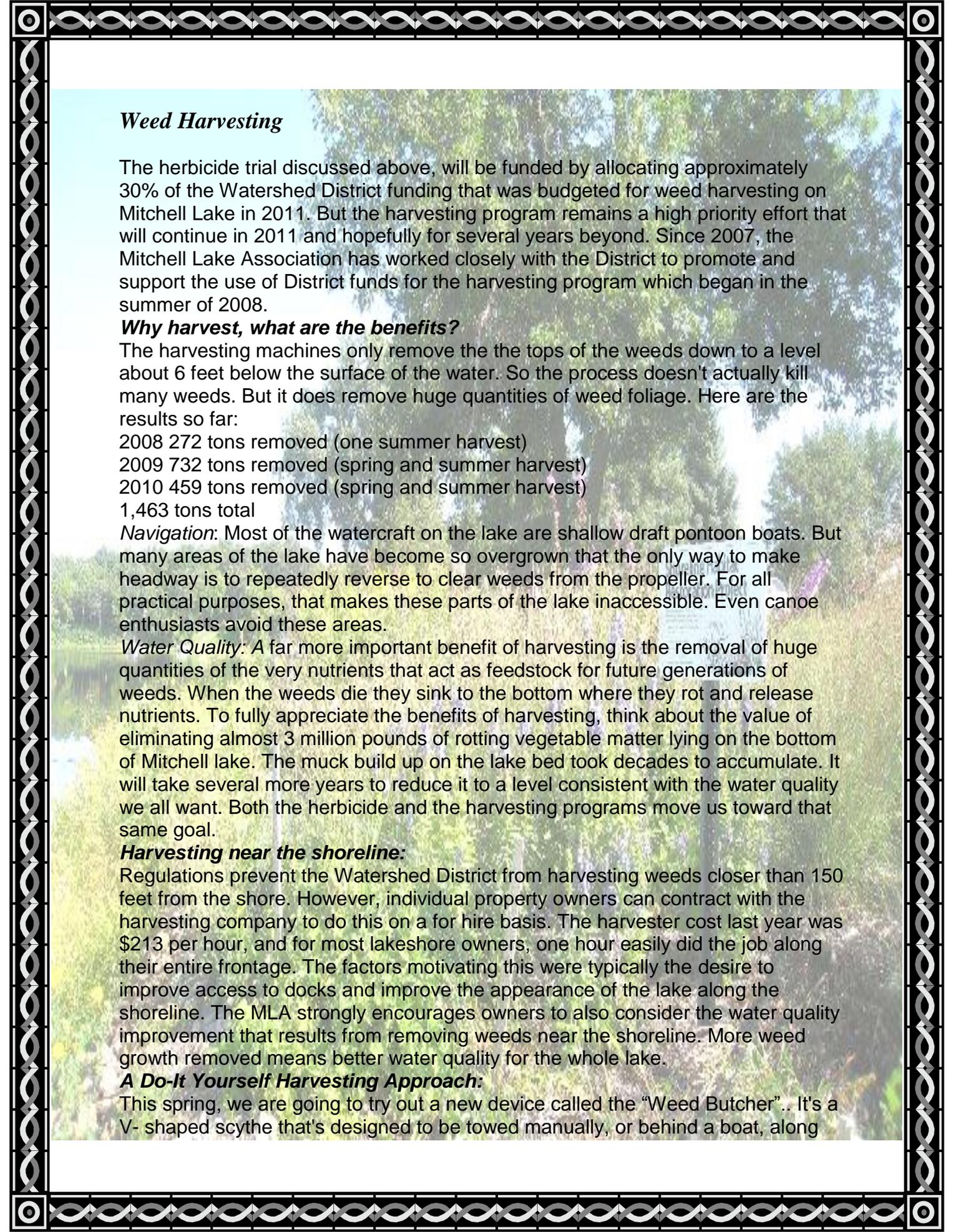
forms of aquatic life. Midwest Aquacare has effectively applied this same herbicide since 2003 for weed control in the pond adjacent to Mitchell Lake.

The pond (see map) was not originally connected to Mitchell Lake at the surface, and is not legally considered to be a part of the lake. Therefore, these treatments did not require a DNR permit, and were funded by the homeowners surrounding the pond. The District's Engineering Consultant, CH2MHILL will perform extensive sampling to monitor lake water quality and determine the effectiveness of the herbicide application.

While Aquathol will kill most pondweed species of plants it contacts, the root structures of many of these plants will survive to support new growth in subsequent years. Therefore, given the overall success of this first year trial, follow-up applications will be considered in following years. Your Mitchell lake Association board members are excited about this new development. Working in close partnership with the Watershed District, their engineering consultant, and the DNR, we now have another tool that can potentially be used to improve the quality of our lake.

Dallas Burns  
Mitchell Lake Association Board Member





## ***Weed Harvesting***

The herbicide trial discussed above, will be funded by allocating approximately 30% of the Watershed District funding that was budgeted for weed harvesting on Mitchell Lake in 2011. But the harvesting program remains a high priority effort that will continue in 2011 and hopefully for several years beyond. Since 2007, the Mitchell Lake Association has worked closely with the District to promote and support the use of District funds for the harvesting program which began in the summer of 2008.

### ***Why harvest, what are the benefits?***

The harvesting machines only remove the the tops of the weeds down to a level about 6 feet below the surface of the water. So the process doesn't actually kill many weeds. But it does remove huge quantities of weed foliage. Here are the results so far:

2008 272 tons removed (one summer harvest)

2009 732 tons removed (spring and summer harvest)

2010 459 tons removed (spring and summer harvest)

1,463 tons total

***Navigation:*** Most of the watercraft on the lake are shallow draft pontoon boats. But many areas of the lake have become so overgrown that the only way to make headway is to repeatedly reverse to clear weeds from the propeller. For all practical purposes, that makes these parts of the lake inaccessible. Even canoe enthusiasts avoid these areas.

***Water Quality:*** A far more important benefit of harvesting is the removal of huge quantities of the very nutrients that act as feedstock for future generations of weeds. When the weeds die they sink to the bottom where they rot and release nutrients. To fully appreciate the benefits of harvesting, think about the value of eliminating almost 3 million pounds of rotting vegetable matter lying on the bottom of Mitchell lake. The muck build up on the lake bed took decades to accumulate. It will take several more years to reduce it to a level consistent with the water quality we all want. Both the herbicide and the harvesting programs move us toward that same goal.

### ***Harvesting near the shoreline:***

Regulations prevent the Watershed District from harvesting weeds closer than 150 feet from the shore. However, individual property owners can contract with the harvesting company to do this on a for hire basis. The harvester cost last year was \$213 per hour, and for most lakeshore owners, one hour easily did the job along their entire frontage. The factors motivating this were typically the desire to improve access to docks and improve the appearance of the lake along the shoreline. The MLA strongly encourages owners to also consider the water quality improvement that results from removing weeds near the shoreline. More weed growth removed means better water quality for the whole lake.

### ***A Do-It Yourself Harvesting Approach:***

This spring, we are going to try out a new device called the "Weed Butcher".. It's a V- shaped scythe that's designed to be towed manually, or behind a boat, along

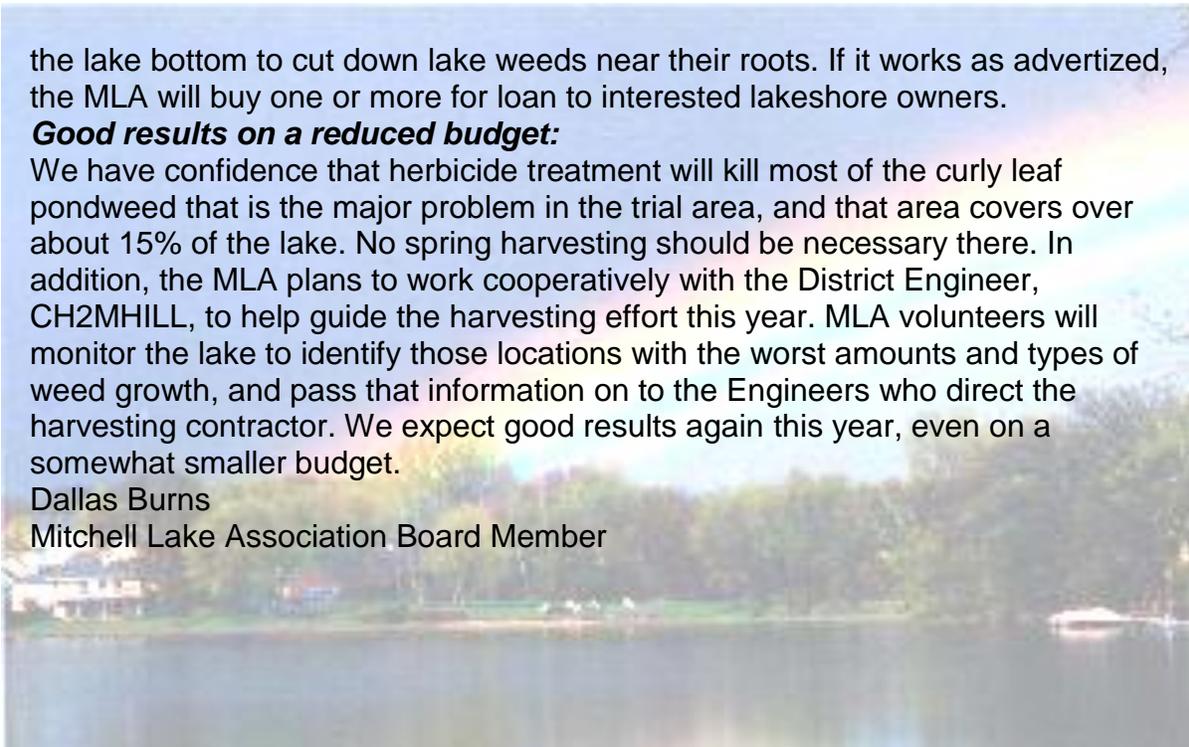
the lake bottom to cut down lake weeds near their roots. If it works as advertised, the MLA will buy one or more for loan to interested lakeshore owners.

***Good results on a reduced budget:***

We have confidence that herbicide treatment will kill most of the curly leaf pondweed that is the major problem in the trial area, and that area covers over about 15% of the lake. No spring harvesting should be necessary there. In addition, the MLA plans to work cooperatively with the District Engineer, CH2MHILL, to help guide the harvesting effort this year. MLA volunteers will monitor the lake to identify those locations with the worst amounts and types of weed growth, and pass that information on to the Engineers who direct the harvesting contractor. We expect good results again this year, even on a somewhat smaller budget.

Dallas Burns

Mitchell Lake Association Board Member



## Beware the Introduction of Purple Loosestrife to Our Shorelines

Our shoreline was very fortunate to have been one of the restoration projects that Mitchell Lake Association and the DNR teamed together to take on two summers ago. Three hundred plus aquatic plants and one hundred twenty shoreline shrubs were planted by Fortin Consulting. During the drought that followed the same summer we took great care to keep the aquatic plants alive through frequent watering. The following summer everything seemed to be well as the shoreline quickly greened up with the variety of plants that had been introduced. By the time the Mitchell Lake Association summer cookout arrived in July, the shoreline was thick with greenery. However, it strangely looked a lot like the same kind of plant. Unfortunately an invasive species call Purple Loosestrife had also taken root, probably through seed introduction while the waterline had been so low and so much shoreline had been exposed through the prior summer. Closer inspection showed that this invasive species was quickly out-competing what had been planted the prior summer. Much of the rest of my summer was spent carving out this plant from both the shoreline along the bank and in the water. It had quickly moved up to 12-15 feet out into the water and up to five feet up the bank in some places, and was choking out the native plants & shrubs. While it was very difficult to remove from the bank, the only good news was that it pulled easily out of the soft lake bottom. The needed tools of choice were a pair of waders, a spade and a canoe to fill with purple loosestrife along with a disposal company willing to pick up that many bundles of loosestrife.

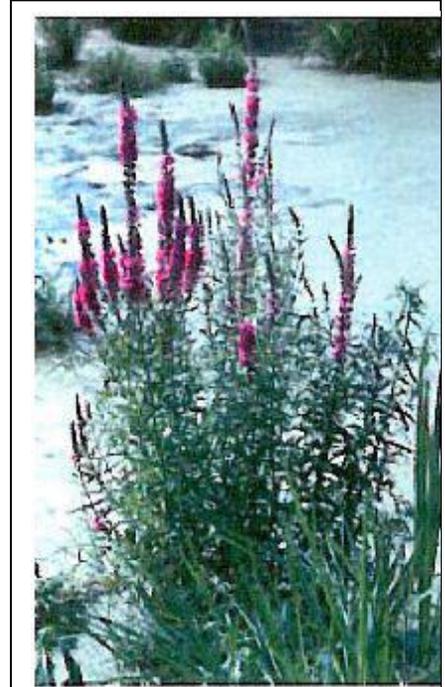
A bit of research (<http://www.dnr.state.mn.us/invasives/aquaticplants/purpleloosestrife/id.html>) showed how and why this explosion had occurred so quickly. This plant spreads both by

seeds and by roots and is 3 – 6 feet tall. Each mature plant can produce up to 2.7 million seeds annually and they are as tiny as grains of sand. Germination usually occurs the following season, but seeds may lie dormant for several years before sprouting, so we will be checking our shoreline regularly for awhile. Purple Loosestrife roots are impressively large and widespread, sending out up to 30 to 50 shoots per plant creating a web which chokes out other plant life. Unfortunately we lost most (but not all) of the shoreline aquatic plants due to my lack of awareness.

Please see attached photos of what is and is not Purple Loosestrife. Given how quickly it spreads, I hope that attentive teams of the able-bodied can make it a practice to remove this invasive species regularly. Working together as neighbors and through our Mitchell Lake Association will be important as we naturalize and beautify our shorelines with natural native species.

Thank you in advance for your interest and willingness to help protect our lake!

John Tyler  
Mitchell Lake Association Board member/VP



**Purple loosestrife can range from 2 to 7 feet high.**

### Don't be fooled by these look-alikes...



**Fireweed**  
*(Epilobium angustifolium)*  
Conical flower spike is 10-13 centimeters (4-5 inches) wide at the base. Stem is round and leaves alternate.



**Blue Vervain**  
*(Verbena hastata)*  
Small purple flower spikes; edges of leaves are toothed.



**Swamp Loosestrife**  
*(Decodon verticillatus)*  
Individual flowers ring the stem above leaf pairs.



**Winged Loosestrife**  
*(Lythrum vigatum)*  
Leaves alternate with small stems attaching to main stem.

## ***MLA Accomplishments and 2011 Membership Drive***

Thanks to all our members for your past support. Your commitment to the MLA is a key factor in our association's past and continuing success.

It seems like just yesterday we were putting together the 2010 newsletter and membership drive materials. But, yes, it's true - another year has passed and it's time to kick-off the 2011 membership drive. We urge you to return your 2011 membership form and dues as soon as possible. This year's membership dues will remain at \$35.00 per household – the same low rate as always. Frankly, the annual dues and the funds they provide are not the most important part of your membership. Significantly more important is our collective commitment to our lake association - measured by the size of our active membership. Continued high membership levels demonstrate to our partners our continued support of the goals and objectives of the Mitchell Lake Association and the activities we pursue as a group. The greater our numbers and the higher our participation level the louder our combined voice.

We trust you believe the association is worthy of your continued investment. But, just as a reminder, here's a partial listing of what we've been able to achieve as an association:



- A strong partnership with our partners, especially the Watershed District. In fact, four MLA board members work directly with the Watershed District acting on our behalf as Citizen Advisors. This involvement has resulted in numerous water quality projects on Mitchell Lake including the recent weed harvesting and this year's new pilot herbicide application.
- Continuing education opportunities for our members in partnership with the City of Eden Prairie to help us better understand how we can become better stewards of our lakeshore resources.
- Sponsored four annual spring clean-ups – with the fifth upon us soon (April 16<sup>th</sup>).
- Three separate tree plantings totalling 85 trees on the north shore of the lake bordering Highway 5 to improve the lakeshore vista, act as a sound barrier and help filter runoff before it enters the lake.
- Partner with the Department of Natural Resources to secure grant monies to help our members with natural shoreline restoration and rain garden projects. Four shoreline restoration projects including one rain garden have been completed.

Bob Becker  
Mitchell Lake Association Board Member