

Select areas of Houghton Lake will be treated periodically throughout the summer beginning in approximately June. Below is a list of herbicides that may be used in the lake, and their associated use restrictions.

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**Renovate 3 or Renovate OTF** (active ingredient **triclopyr**):

- 24-hour restriction on swimming in the treatment area.
- Irrigation of established lawns and grasses — no restrictions.
- Irrigation of ornamentals, crops, and non-crops — 120 days or until assay indicates a non-detectable level

**Navigate** or **Aqua-Kleen** (active ingredient 2,4-dichlorophenoxyacetic acid):

- 24-hour restriction on swimming in treatment area.
- Irrigation of lawn, grasses and turf - no restrictions.
- Do not use water from treated areas for irrigating plants or mixing sprays for agricultural or ornamental plants, unless an approved assay indicates the 2,4-D concentration is 100 parts per billion (or less).
- Do not use water from treated areas for potable water, unless an approved assay indicates the 2,4-D concentration is 70 parts per billion (or less).

**Reward** (active ingredient diquat dibromide):

- 24-hour restriction on swimming in treatment area.
- 5-day restriction on crop irrigation.
- 1-day animal consumption of treated water.
- 3-day restriction of domestic water supplies.

The following products may be used but have no restrictions:

**Cygnat Plus** (adjuvant)

**PolyAn** (sinking agent)

**Water Dye** (tracer)



This year's treatments will again be conducted by:

Professional Lake Management  
 8865 100th Street SE  
 Alto, MI 49302  
 616-891-1294

Certified Applicators:  
 Jason Broekstra  
 Jaimee Conroy  
 Jeff Tolan  
 Stephanie Mervau  
 Andy Tomaszewski  
 Steve Hanson  
 Jacob Ware  
 Pat MaLamara  
 Nate Karsten  
 Lucas Slagel  
 Casey Mickelson  
 BreAnne Grabill  
 Dusty Grabill  
 Jacob Hunt  
 Lynn Benedict

*At the time of treatment, signs will be posted along the shoreline within 100 feet of treatment areas that indicate what specific herbicides were used and use restrictions that apply.*

# NEWS

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**To receive regular updates on the activities of the Lake Improvement Board and the condition of the lake via email, contact the board at lakeboard@mail.com**

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 Environmental Consultant:  
 Progressive AE

# Houghton Lake Improvement Board Newsletter

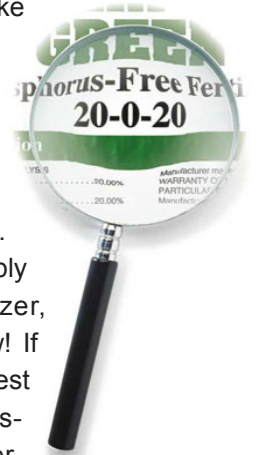
Spring 2008

This is the second year of the new five-year management plan for Houghton Lake being implemented under the direction of the Houghton Lake Improvement Board. As in previous years, the plan is being funded through special assessment of benefiting properties under provisions of Part 309, Inland Lake Improvements, of the Natural Resources and Environmental Protection Act, PA 451 of 1994. This newsletter is mailed to over 5,000 property owners around the lake to provide an update on project activities.

As in previous years, the control of the nuisance aquatic plant Eurasian milfoil in Houghton Lake will remain a primary focus. This newsletter includes a summary of plant control activities to date and what is planned for 2008. In addition to plant control, the annual water quality and vegetation monitoring programs will continue.

In order to protect the health of Houghton Lake over the long term, steps must be taken to reduce pollution inputs to the lake to the extent possible. A major concern is phosphorus, a nutrient commonly found in lawn fertilizers. Phosphorus is the nutrient that most often stimulates excessive growth of aquatic plants, leading to a variety of problems known collectively as eutrophication. To address these problems, the state of Minnesota passed a state-wide law restricting

the use of fertilizers containing phosphorus. Florida and Wisconsin are considering similar laws. In Michigan, many communities are adopting local regulations to limit phosphorus fertilizer use. In recent months, Markey, Lake, Roscommon and Denton Townships all adopted ordinances that regulate phosphorus fertilizers. These ordinances become effective January 1, 2009. The lake board will be working with local fertilizer suppliers and retailers this summer to make them aware of the new ordinances and to promote the use of lake-safe fertilizers. If you don't apply lawn fertilizer, don't start now! If you do, request a phosphorus-free fertilizer mix. (With phosphorus free mixtures, the middle number on the fertilizer bag will be zero).



**Meetings**

In 2008, the Houghton Lake Improvement Board will hold regular meetings at 7:00 p.m., in the Denton Township Hall in Prudenville, on the following dates:

- |         |              |
|---------|--------------|
| May 20  | August 26    |
| June 24 | September 23 |
| July 22 | November 18  |

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Early Detection—Rapid Response—Better Control!

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**As in previous years, the only plant being targeted for control in Houghton Lake is Eurasian milfoil.** As its name implies, Eurasian milfoil is not native to Michigan. It was first introduced into the United States from Europe and Asia in the 1940s. Eurasian milfoil can spread very rapidly by a process called vegetative propagation in which small pieces of the plant break off, take root and grow. Eurasian milfoil is especially problematic in that it tends to become established early in the growing season and can grow at greater depths than most plants. Eurasian milfoil often forms a thick canopy at the lake surface that can degrade fish habitat and seriously hinder recreational activity.

In 2008, Eurasian milfoil control in Houghton Lake will focus on the use of systemic herbicides. Systemic herbicides are used to kill the entire plant, roots and all, unlike contact herbicides that only affect the top of the plant. Systemic herbicides generally provide much longer control than contact herbicides. This is especially true with Eurasian milfoil since it tends to re-establish quickly if treated with contact herbicides. The systemic herbicides that are proposed to be used on Houghton Lake this year include 2,4-D and triclopyr (also known as Renovate). These particular herbicides also have the advantage of being selective. That is, they kill Eurasian milfoil while

causing little or no damage to non-target plants. The herbicide treatments for Eurasian milfoil control will start early in the growing season when the plants begin actively growing and the treatments are generally most effective.

Plant control activities will be coordinated under the direction of biologists from Progressive AE, the lake board's environmental consultant. Biologists from Progressive will perform extensive field surveys of the lake and Eurasian milfoil beds will be identified and mapped using global positioning system technology. Biologists from Progressive will determine the scope of work to be performed by the herbicide applicator, and conduct follow-up inspections to ensure work is performed in a satisfactory manner.

It should be noted that all herbicide treatments of Houghton Lake are conducted under a permit from the Michigan Department of Environmental Quality (MDEQ). The permit lists herbicides that are approved for use in the lake, respective dose rates, use restrictions, and shows specific areas in the lake where treatments are allowed. **For the past several years, the actual treatments performed have been substantially less than allowed in the state permit.**



Eurasian milfoil  
*Myriophyllum spicatum*

Aquatic plant line drawing is the copyright property of the University of Florida Center for Aquatic Plants (Gainesville). Used with permission.



A summary of plant control activities completed on Houghton Lake under the direction of the Houghton Lake Improvement Board is provided below. **Since the whole-lake treatment was performed in 2002, less than four percent of Houghton Lake has required spot-treatments to keep Eurasian milfoil from regaining dominance in the lake.**

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**HOUGHTON LAKE PLANT CONTROL HISTORY**

	Herbicides (acres treated)			Acres Harvested	Milfoil Weevils (# Stocked)
	Sonar®	Contacts	Systemic		
2002	20,044	17			
2003			32		
2004			44	81	5,000
2005		50	395	84	28,000
2006		59	444	105	
2007		106	660		30,000

**Aquatic Plant Waste**

Both the Denton & Roscommon recycle facilities accept aquatic plant / snail debris throughout the year. Both locations are open on weekends. The Denton facility is on Level Park Drive, just west of M-18 South 366-6634 or 366-5913. The Roscommon facility is at the top of Tower Hill Road 422-4116.