Drain Commissioner

220 W Ellsworth St
Midland, MI 48640-5194

Phone: (989) 832-6770
Map and Directions

In This Department:

Wixom Lake Lighthouse

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Related Resources:

- Michigan Lake Information
- Professional Lake Management
- Wixom Lake Complaint Form

Wixom Lake Improvement Board

BOARD MEMBERS

Sherry Augustine - Gladwin County Drain Commissioner
Douglas Enos - Midland County Drain Commissioner
James Leigeb - Midland County Commissioner
Terry Whittington - Gladwin County Commissioner
Dennis McBride - Tobacco Township Representative
James Birchmeier - Billings Township Representative
Jerry Wirbel - Edenville Township Representative
Ed Briggs - Hope Township Representative
Kristine Phillips - Member at Large

MEETING SCHEDULE FOR 2009

All meetings in 2009 are scheduled for 6:00 p.m.at the Billings Township Hall,
1040 Estey Rd., Beaverton, MI

March 11, 2009
May 13, 2009
June 10, 2009
July 15, 2009
August 12, 2009
September 9, 2009
November 11, 2009

LAKE STATISTICS

Lake Surface Area	2,162 Acres
Maximum Depth	43 Feet

Other Departments:

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Mean Depth	13.4 Feet
Lake Volume	28,943 Acre-Feet
Shoreline Length	84.3 Miles
Shoreline Development Factor	12.9
Immediate Watershed Area	200 Sq. Miles
Ratio of Lake Area to Immediate Watershed Area	1:59
Extended Watershed Area	1,900 Sq. Miles
Average Residence Time	64 Days
Minimal Continual Flow through Dam	66 CFS

BOARD HISTORY

The Wixom Lake Improvement Board was formed in January 2001 after resolutions requesting its formation were passed by Billings Township in Gladwin County and by Hope and Edenville Townships in Midland County. The portion of Tobacco Township east of M-30 joined the Board in the fall of 2001.

The Board retained Progressive A-E to develop a lake management plan. After analysis of water samples and weed surveys, it became apparent that Wixom Lake and its bottom sediments are rich in nutrients and with the clear water resulting from the filtering of zebra mussels, the lake is prime habitat for aquatic plants. The recommended plan calls for the following:

- An aquatic plant control program consisting primarily of herbicide treatments to selectively control Eurasian milfoil and limited mechanical harvesting of nuisance levels of native aquatic plants.
- A public education program which would focus on the annual dissemination of information to lake residents regarding proper lakeside landscaping, septic system maintenance, wetland protection, and ongoing lake management activities.

The three year plan had an annual budget of $214,000 and was financed by special assessments to the lakefront land owners. The approximate cost per lot for a lakefront owner was $124.00 per year.

In 2004 a second management program was approved, this time for a four year time period. The annual budget was set at $238,000. The annual assessment to lakefront owners was $138.00.

At a public hearing held on July 12, 2008, another four year program was approved by the Lake Improvement Board. The annual budget was set at $253,000, representing a $146.00 yearly cost per lakefront owner.

WEED MANAGEMENT PLAN

Background

Much of the aquatic vegetation in Wixom Lake consists of species that are native to Michigan. These weeds provide habitat for fish and are generally viewed by biologists as being an asset to the lake. Other species are not native to Michigan and can cause problems. One such plant is Eurasian water milfoil.

Milfoil

Eurasian water milfoil is a fast growing plant that grows to the surface and can form a dense canopy. This canopy shades out other more desirable plants and can be a hindrance to both boating and swimming. Controlling this plant that is the main focus of the lake management plan.

Harvesting of milfoil is, however, not a real option. Milfoil spreads by fragmentation. To harvest milfoil is to spread it. Any attempt at control of milfoil must be done either chemically or biologically. There have been tests and trials with a weevil that eats milfoil. While some limited success has been reported using weevils, they do not seem to provide widespread control in large areas. The jury is still out on their scope of application.

Chemical treatment for milfoil is then where most of the effort and cost will be concentrated. Several different chemicals are available for use against milfoil. Each have certain strong points along with some weak points.

Harvesting

One part of the management plan is for the cutting and removal, or harvesting, of plants. This procedure will be implemented in areas of native weeds which are so dense as to cause problems for boating. This generally means that a lane will be cut so that people can get their boats from their docks out to open water. There are several drawbacks to harvesting. The harvester is not maneuverable enough to cut between docks, it needs 18" to 2' of water and the many stumps in the lake can be a huge concern. It is also a very temporary solution to the plant control program.

Herbicides

2, 4-D is a systemic chemical, meaning it kills the entire plant, roots and all. 2, 4-D has historically been one of the most successful chemicals used against milfoil. One of the drawbacks to it is a restriction around household wells, particularly shallow wells.

Trichlopyr, with a brand name of Renovate, is a newer chemical approved for aquatic use. It is also a systemic chemical but it has a somewhat lengthy recommendation to not use the water for irrigation. It was used in some areas in 2003 and performed quite well. The non-irrigation restriction was lifted after a period of approximately three weeks. A pellet version of the product has been used since 2007. It is particularly effective in the canals.

Reward is another available chemical which does not have a well setback restriction, but it is a contact herbicide, rather than a systemic one. This means that it kills only the portions of the plant with which it comes into contact with. It does not translocate and kill the root of the milfoil.

Flouridone, with a band name of Sonar, has also been used successfully against milfoil, most notably at Houghton Lake. It is a systemic herbicide which requires a long contact time of 45 to 60 days. Because of the constant flow through Wixom Lake, a pelletized, slow release version of Sonar was being tested in 2004. Unfortunately, high flows after heavy rains in late May compromised the project. It is unclear if or when this product may be used again.

Other weeds

Curly-leaf pondweed is another exotic weed which can reach nuisance densities. It responds well to Reward treatments.

Wild Celery or Eelgrass are native weeds which can become a nuisance, particularly near shore. It grows later in the season and can become a problem after mid July. It can be treated with a copper based product called Nautique. The treatment is normally only partially successful.

Algae is a non-rooted plant which can develop in hot, dry weather. It often forms an unpleasant scum on the water surface. A treatment with copper sulphate temporarily controls this problem.

2009 MANAGEMENT PLAN

The management plan for 2009 will not be finalized until a spring weed survey has been conducted and until the applicator Professional Lake Managementhas secured an application permit from MDEQ. 2, 4-D will be used in areas more than 250 feet from shore and Renovate will be used near shore and in the canals. These treatments will take place in mid to late May. Where large beds of curly-leaf pondweed are identified, Reward will be used in late May to early June. Algae treatments will be conducted throughout the summer, as may be necessary. Eelgrass may be treated in late July to early

August with Nautique. Harvesting in some areas near shore is also a possibility. Both harvesting and Nautique treatments are dependant not only upon conditions but also upon budget considerations at that time.

FINANCIAL/BUDGET

ASSESSMENTS

The present management program is a four year program running through 2012. It is financed by special assessments upon the land owners along with funds remaining from the previous program. The annual assessments are as follows:

Type of Parcel	Units	Annual Assessment
Lakefront Parcel	1.0	$146.00
Backlot Parcel	0.5	$73.00
Commercial Lakefront	2.0	$292.00
Commercial Backlot	1.0	$146.00
Trailer Sites	0.25	$36.00

BUDGET

Item	Annual Cost
Aquatic Plant Control	$170,000.00
Mechanical Harvesting	$30,000.00
Engineering, Administration and Inspections	$20,000.00
Information and Education	$9,500.00
Administrative and Contingency	$23,500.00

COSTS

The Lake Improvement Board has contracted with Professional Lake Management of Caledonia, Michigan to provide aquatic herbicide services in 2009 at the following rates:

2, 4-D	$330.00 / acre
Reward	$200.00 / acre
Renovate	$395.00 / acre
Algae control	$32.70 / acre
Aquathol-K	$174.00 / acre
Renovate OTF	$450.00 / acre
Hydrothol 191	$81.95 / acre

Harvesting	$290.00 / acre
Endothal	$340.00 / acre
Wild Celery Control	$325.00 / acre
Reward	$270.00 / acre

Treatment & Harvesting Dates and Information

Date	Chemical	Restrictions/Information
5/21/09	Aquathol-K	*Do not use for irrigation for 7 - 25 days.*
5/21/09	2,4-D	*24 hr. restriction on swimming.* *Do not use treated water for irrigation of newly seeded lawns or ornamental plants for 3 weeks.*
5/21/09	Renovate OTF	*Do not use treated water for irrigation of any plants for 120 days (this may be lifted after testing reveals acceptable concentrations for irrigation)*
5/21/09	Reward	*24 hr. restriction on swimming.* *Do not use treated water for irrigation of lawn or ornamental plants for 3 days.* *Do not drink treated water for 3 days.* *Do not use treated water for irrigation to food crops for 5 days.* *Do not use water for livestock consumption for 24 hrs.*
	Harvesting	
5/21/09	Copper Sulfate	*No restrictions*
	Nautique	*No restrictions*
5/21/09	Renovate 3	*No restrictions*

Wednesday, May 20th, 2009 04:17 PM EDT