

# THE LAKER

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## THE NEWSLETTER OF THE NORTH LAKE PROTECTION ASSOCIATION JULY, 1995

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### Annual Meeting:

The 1995 annual membership meeting of the North Lake Protection Association (NLPA) will be held at 7:00 pm on Wed. August 23 at the clubhouse of the Inverness Golf Club on North Territorial Road. The meeting is open to all North Lake residents and interested parties. Please be there to hear about North Lake news, to elect NLPA officers for 1995-96 and to voice your opinion about the business of NLPA! A representative of the sewer board for the three-lake sewer project will be on hand to answer questions.

### 1995 Milfoil Treatment:

Many thanks to our hard-working weed committee: Dave Pruess (chairman), Eric Batsdorfer and Kent Thiel. Here is a report from Dave:

We are pleased to report that the 1995 North Lake weed control program has been completed as planned. We contracted with Aquatic Services Inc. of Goodrich, MI, who treated 38 acres with 2,4-D to control Eruasion Milfoil growth. Fortunately the total cost of services (\$9,150) was covered by the funds donated for weed control, with \$320 remaining to be spent for a water quality survey.

The residents of North Lake should plan for the same or larger costs for 1996. This will hinge on the weed growth during this season. If anyone was not contacted during the annual fund drive, please send your donation of \$100 to NLPA towards the 1996

treatment. For 1996, we will need two or three dedicated individuals to manage weed treatment. To improve the process, an improved database of residents is suggested. 1995 committee members will assist the new chairpersons.

We wish to thank all of the 123 persons who donated money or at least answered the questionnaire. If we missed your name, we apologize (please send a note with your name and address to your NLPA president). The landing representatives also deserve a big THANKS for their help.  
D. Pruess, K. Thiel, E. Batsdorfer

Although weed control is not the only function of the North Lake Protection Association, it consumes the majority of our funds for the year, and requires planning, mailing, compiling permissions, obtaining permits from the Department of Natural Resources, sign posting and follow-up.

Here is a brief history of previous North Lake milfoil treatments: In 1988, the NLPA did a survey of lake residents, and over half the respondents felt weeds were a serious problem. An aquatic plant survey of North Lake was made to catalog native and pest plants (including Eurasian Milfoil, which was brought in by boat trailers, and infests the shallow areas of the lake). In 1989, NLPA raised funds and got permission from lake residents to treat for milfoil, and this process has continued each year since, at a cost of from \$6,000 to \$11,000 per year (acres treated are shown in the next column):

1989 treated 36 acres  
1990 treated 32 acres with additional mechanical harvesting  
1991 treated 28 acres  
1992 no treatment  
1993 treated 47 acres  
1994 treated 45 acres  
1995 treated 38 acres.

Although milfoil is still a problem, yearly treatment minimizes milfoil growth, and may be necessary for the foreseeable future.

### Why Do Weeds Grow?

Aquatic plants are a normal part of North Lake, and are necessary for shelter, food and oxygen production for the fish, frogs, birds, and other wildlife that make our lake their home. They grow particularly in the shallow areas on the West side, East side (near the boat launch) and near lagoons.

Our lake is unfortunately in the process of gradually increasing weed growth, called eutrophication. This happens because nutrients (phosphorus, nitrogen, and other trace elements) enter the water. Just like fertilizing your lawn, these nutrients make aquatic weeds grow faster and greener.

Eutrophication is difficult to stop, because as weeds die, they sink to the bottom and decay, leaving sediments containing phosphorus and other nutrients to fertilize next year's grown of plants. It takes many years for nutrients to leave North Lake because not much water flows out of the lake; instead, most water leaves by evaporation or percolating into the ground,



## Why Do Weeds Grow? (continued):

leaving nutrients behind for a number of years.

The same nutrients also contribute to the growth of microscopic algae that sometimes give the water a cloudy, greenish tinge, and other algae that can bloom and form a mat of green "hair" like this Spring in the lagoon on the South side of the lake. Algae (but not weeds) in shallow areas can be controlled at any time by applying copper compounds that do not require a permit from the Dept. of Natural Resources.

## How Clean is N. Lake?

Today, North Lake is relatively clean, and great for water sports and fishing. Its water quality is roughly half way between the crystal-clear lakes of Canada and Northern Michigan (visibility more than 15 feet), and the shallow, algae-filled lakes of southern states.

Water clarity in North Lake has been measured for several years by volunteers, recently by Doug Fasing. In the years 1976 to 1983, visibility of a target lowered by rope from a boat (a Secchi disk) was between 8 feet in 1977 and 14 feet in 1981, with an average of about 10 feet. In 1993, visibility was about 10 feet during the summer, except for August, when visibility dropped to 6½ feet for a couple of weeks. In August of 1994, it was just under 10 feet.

These readings show that clarity of North Lake has been low at times, because of algae growth during periods of warm water and increased nutrients. However, overall water quality has not changed too much in the past 20 years. It is important to continue these readings — anyone interested in volunteering for 1996 should contact Charlie Taylor (475-2172).

## How Can I Help?

You can prevent pollution in North Lake by following guidelines

supplied by the DNR (details are available by requesting the free DNR publication "Protecting Inland Lakes.")

1) The entire watershed of North Lake affects lake quality. After heavy rains, water runs off roads, ditches and yards more than 1/4 mile to directly enter North Lake.

2) **Don't burn leaves or waste on the lake watershed.** If you must burn, remove ashes to a landfill. Ashes are very high in nutrients that cause plant growth.

3) Keep organic material out of the lake. Leaves, lawn clippings, animal droppings and plants or sediment taken out of the lake should be disposed by composting far away from the lake.

4) Don't fertilize your lawn. Lawn fertilizer washes into the lake when it rains. Low phosphorus fertilizers are better, but any fertilizer will pollute the lake. Perforate your lawn to allow water to enter the ground more easily. Mow grass high (3½") to minimize need for fertilizer.

5) Keep your septic system operating efficiently. Sandy or gravelly fields drain more directly into the lake. Don't use leaky or poorly designed systems. Conserve water to avoid excess runoff into lake watershed.

6) Keep shrubs, trees and plants within a 15' belt along the lake shore. Plants form a barrier to runoff and use up excess nutrients much better than grass.

7) Conserve wetlands. Swampy areas trap sediments and use up nutrients before they enter the lake. They are also important for fish and wildlife.

## Lake Water Survey

In the fall of 1994, NLPA paid Freshwater Physicians, of Brighton, to sample water from North Lake and report on water quality compared to previous years. Here is a summary of the report.

The biggest change from 1988 and 1992 to 1994 was a 10% increase in chlorides. In the previous two surveys, chloride was

stable at about 0.0041% but now is about 0.0046%. This is many times higher than ground or rain water, and indicates runoff of chloride from other sources into the lake. Chloride is found in salt (e.g. road salt, water softener salt) and is not a serious pollutant, but indicates that additional man-made chemicals (e.g. phosphates, nitrates) also may be entering the lake.

Phosphate and nitrate levels in water are about the same as in previous years, but plant growth has increased noticeably (both rooted plants and microscopic algae) that grow and hold these nutrients in the plant material.

In summary, the quality of North Lake water is good, but there are indicators (increased chloride concentration, decreased water clarity) that pollution from nearby roads, residences and farms accumulate in the lake over time.

According to Howard Wardell, an official of the DNR surface water quality division, the only way to get an accurate idea of pollution in North Lake would be to perform a "nutrient budget" study of the lake. This type of study would cost as much as \$50-100,000 and would account for water runoff from the whole drainage area and measure the rate of water turnover (inflow from rain, springs and runoff and outflow into ground water and overflow to adjoining wetlands).

Such a study could estimate the impact of a sanitary sewer or altered runoff. However, Wardell said that the turnover time for water in North Lake is likely to be as long as 10 to 40 years, and any changes (as from the sanitary sewer) may take a number of years to show in improved water quality.

## Sewer System Update

In Summer of 1993, more than 60% of lake residents signed a petition to Dexter Township to begin a plan to install a public sanitary sewer system.

The plan is now well underway, with a bond to finance the service in



### Sewer System (cont'd):

place, and land for the treatment plant purchased (just off N. Territorial Rd. about two miles east). The routes for small-diameter pressurized lines have been surveyed, and if things continue on schedule, service may begin as early as fall of 1996.

Each resident will have an electric grinder/pump in their yard (about the size of a buried trash can) and will be assessed the cost of the project (approx. \$10,800 plus interest) over the next 20 years. Each resident also will pay for attaching pipes to the new system and de-commissioning their old septic system.

### Gas Line to N. Lake

Consumer's Power has begun getting variances and planning to route natural gas service to all residents of North Lake. If all goes as planned, gas service will begin for some residents as early as Oct of 1995, but will likely be later for other residents.

### Form a Lake Board?

It has been proposed in years past to form a Lake Board under the authority of the Michigan Inland Lake Improvement Act of 1966. Such a lake board would be made up of representatives of local government (e.g. county, township), the county drain commissioner, a property owner's representative and a representative from the Michigan Dept. of Natural Resources. The board would have powers to propose lake improvement plans, to hold public meetings, acquire land for improvement projects and to assess taxes on lake residents.

Although North Lake does not have such a board, and one has not recently been proposed here, it could carry out lake improvement activities such as road drainage control, building drainage holding ponds, milfoil control or passing ordinances to regulate watershed and lake use. The benefits would

be improved lake quality and simplified fund raising for milfoil treatment and other activities. The disadvantage would be loss of resident control because of direct participation from governmental agencies. However, this option is the only one that allows control over adjoining land such as drainage from North Territorial Road and the Inverness Golf Course.

### Thanks to Don Warren!

Don tends the gate at the public landing, locking it at night every night and unlocking it every morning (365 days a year). NLPA expresses its sincere thanks to Don, and pays him a token fee of \$200 per year. Thanks, Don!

### North Lake Photo

Aerial Graphics of Grand Rapids, MI has a 20 x 24 inch color photo of North Lake that is available for purchase. If interested, please detach this form and mail it in with a check:

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I would like a glossy aerial photo of North Lake. I have enclosed a check made payable to "North Lake Protection Assoc."

20 x 24" photo with mat and  
 lamination: \$49.00  
 metal framing (optional): \$79.00  
 oak framing (optional): \$99.00

total enclosed: \_\_\_\_\_

Mail completed form and check to:  
 Sheryl Ulin, 10101 Hadley Dr.,  
 Chelsea, MI 48118 by September  
 15, 1995.

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North Lake Prot. Assoc. Representative	Address	Phone #
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Officers:

Co-presidents:	Charlie Taylor	7560 Lake Shore Dr.	475-2172
	Bruce Gaffney	13835 Sauer Dr.	475-9802
	AA address:	2541 Devonshire	677-4396
Sec'y/Treas.	Sheryl Ulin	10101 Hadley Dr.	475-5849

Neighborhood Representatives:

East End	[NO REPRESENTATIVE]		
Eisenbeiser	Kent Thiel	14320 Eisenbeiser Dr.	475-8854
Gilbert Dr.	George Carter	14049 Gilbert Dr.	475-1570
Glenn Oaks	Dan Kruse	7053 Lake Shore Dr.	475-7170
North Lake Farms	Jim Paul	14188 Riker Rd.	475-0425
Noah's Landing	Gerry Loukatka	7612 Noah's Landing	475-1094
Parklawn	Eric Batsdorfer	13817 Bramble Brae	475-8025
	Billy Robertson	13756 Rustic Dr.	475-7175
Sauer Dr.	Bruce Gaffney	13835 Sauer Dr.	475-9802
Stonehedge	Steve Schlosser	7906 Stonehedge Valley	475-7292
Watt Rd.	[NO REPRESENTATIVE]		
Webb's Landing	Dave Pruess	7369 Webb's Landing	475-8146
		1340 St. James Pl.	475-9502
Past officers:	Chuck Gleason	7299 Lake Shore Dr.	475-8937
	Jenny Bachman	7816 Stonehedge Valley	475-1817