

## ANNUAL MEETING

Wednesday, August 29 at 7:30 PM  
Inverness County Club

## THE STATE OF THE ASSOCIATION

Earlier this year Renee Warren was forced to resign from her position as President of the Association due to health reasons. The Board of Directors has accepted her resignation with regret and expresses its appreciation for her efforts on behalf of the Association in North Lake. Vice President Ralph Rumsey is serving in her place pending elections at the upcoming annual meeting of the Association.

The annual meeting of the Association, as noted above, will be held on Wednesday, August 29, 1984, at 7:30 p.m. at the Inverness Country Club. At the meeting the election of the members to the Board of Directors will be held and the confirmation of officers. Also on the agenda will be a presentation by principals of Great Lakes Aquatic Weed Control Co. and remarks by Mr. Steve Czapski, Director of the Burt Shurly Camp, regarding current and future programs for the Camp. Light refreshments will be provided.

Dues continue to be \$5.00 per year. Dues should be forwarded to the Association Treasurer, Kelli Kadlec, at 6995 Westbourne, Chelsea, Michigan 48118. In the alternative, the dues may be paid at the annual meeting or to the Board Member representing your landing. Checks should be made payable to the North Lake Protection Association. This year's financial statement will be available at the annual meeting.

Currently the officers and board members of the Association together with their respective terms are as follows:

OFFICE	MEMBER	LANDING	BOARD TERM EXPIRES
President	vacant		
Vice President	Ralph Rumsey	Sauer Drive	1985
Sec./Treasurer	Kelli Kadlec	Park Lawn	1984
Director	Ron Burkenberger	Noahs Landing	1984
Director	Dave Knisely	Glen Oaks	1984
Director	Tom Kessler	Watt Drive	1984
Director	Gerry Nicks	Webb Shore	1985
Director	George Carter	Shorehead	1985
Director	Dave Classon	North Lake Forum	1986
Director	Ted Lane	Gilbert Drive	1986
Director	vacant	East End	1986

Volunteers are needed for a number of projects. An individual is needed to take over and run the DNR Self-Help Testing Program. This involves making certain that weekly clarity readings are taken through the use of a disk lowered in the water. The tests are taken off the Gilbert Drive area in order to maintain uniformity with past tests. This area was selected since it is one of the deepest areas of the lake. The Self-Help Program is most important for monitoring the health of the lake. Any persons interested in volunteering for this job should contact Ralph Rumsey at home, 475-3260, or at work, 995-3110.

Appointments are also being made for persons to chair or serve on the following committees: Water Quality and Weed Control; Water Safety and Crime Prevention; External Affairs. The External Affairs Committee will monitor Township and watershed interests of concern, maintain communications with the Michigan Lake & Stream Association and review property or other matters which could affect North Lake. Volunteer efforts are important for the strength of the Association and the quality of the Lake. Interested parties should contact their landing Board representative or Ralph Rumsey.

All members are also invited to submit any suggestions or concerns to the Board of Directors.

#### CRIME PREVENTION

During the last year there have been a number of incidents of breakins or thefts around the lake. This has included the theft of a new fully equipped bass boat from the east end of the lake. The Board has asked the Washtenaw County Sheriffs Department to prepare an itemization of all reported crimes around the North Lake area in order that the Association membership can be appraised of the severity of the problem. Obviously, however, any incidents of crime are too many.

Interest has been expressed in setting up a "Neighborhood Watch" program or similar alternative. Deputy Jack Brugger, Crime Prevention Specialist for the Washtenaw County Sheriff's Department, is enthusiastic about working with North Lake residents to establish one. In spite of his best efforts to be our guest speaker at the upcoming Annual Meeting, it appears a previous commitment to the Chelsea Fair may make this impossible. He may, however, send a representative to the Annual meeting on August 29.

Deputy Brugger can be available later in the fall if there's sufficient interest in the program. He thinks it's the best response to neighborhood concerns about personal and home security.

In order to set up a Watch program, 50% of a neighborhood must commit to participate. As the success of the program depends on awareness and communication, it won't work without this level of neighborhood participation. Deputy Brugger would first meet with a group to review basic crime prevention techniques and discuss the value of a Watch program for the participants. If the group wants to proceed, a subsequent meeting is scheduled to discuss crime reporting and self protection. A communication network involving block representatives is set up so that neighborhoods can be kept informed of criminal activities in the area and, in return, the Sheriff's Department can be kept posted of suspicious activities or persons.

Participating neighborhoods are eligible for street and window signs as well as decals advertising the program's existence in the area. Home security surveys can be conducted and Operation Identification assistance is available as well.

Should North Lake residents not choose to develop a Watch program, Deputy Brugger will meet with interested persons for a general discussion of crime and preventive methods. He is presently working on an analysis of the type and incidence of crime around the lake to help determine our needs.

Please let your landing representative know if you wish to be involved in such a program.

#### WEED CONTROL

In late July five adjoining property owners on Sauer Drive undertook a weed control program through the services of Great Lakes Aquatic Weed Control Company. This involved chemical control under permit from the DNR. The program was done in part as an experiment and the results can be viewed in comparison with other untreated portions of the lake with similar weed conditions. The principals of the Great Lakes Aquatic Weed Control Company will be available at the annual meeting to give a short presentation and answer any questions which may be raised regarding individual or lake wide programs.

#### COPPER SULFATE vs. ALGAL BLOOMS?

The following article is condensed from an article written by Dick Gray on managing lake water quality. It is reprinted with permission from "Facets of Freshwater" Vol.9, No.1, Winter 1984. "Facets of Freshwater" is published quarterly and mailed to supporters of the Freshwater Foundation and Freshwater Society, 2500 Shadywood Road, Box 90, Navarre, Minnesota 55392.

As soon as a lake is born, it starts to die. This fact is fundamental to the understanding of what has happened, is happening, and will happen to any natural body of water. The first grain of sand, the first speck of dirt that enters a newly-formed body of water starts the process of lake aging.

It may take a few thousand years, but, sooner or later, a lake does die. It may not seem so, but the major process involved in lake aging and dying is a chemical one. The waters become fertile with elements essential for growth such as nitrogen, phosphorus, potassium and trace elements. Plants and animals abound, die, and gradually fill the depression.

Among the plants are the algae. Of the algae, the blue-greens are a nuisance as they are not generally eaten by the fish and have the nasty habit of occasionally overpowering the other algae to bloom in excessive quantities, then to die in a smelly and unsightly scum along the shore before joining other sediments in the lake bottom.

To reduce these nuisance blue-green algal blooms in reservoirs, ponds and lakes, the chemical compound copper sulfate has historically been used as one of the forms of control.

In recent years, I have been asked many times whether or not I think the use of copper sulfate in water is a good idea. In every instance, I have replied, "I don't think it's a good idea to use it. It doesn't do any lasting good, and there are some viable alternatives."

Dr. John Wood, of the Gray Freshwater Biological Institute, is an expert on metals in water and their effects on living matter. Recently, I had a long and informative talk with him regarding copper sulfate in water. He describes its use as "an apparent short-term solution with severe long-term problems."

Wood explained that when copper sulfate is applied to the water, ionized copper is freed quickly to become available to plants. When the ionized copper is available in "super quantities", the algae take up an excessive amount, killing them quickly.

But not enough copper sulfate should or can be legally applied to control algae for any great length of time. The algae multiply and return to previous or greater numbers once the excess copper has been used up, usually within a few days.

The copper added to the water is there forever, as it does not degrade. And the repeated use of copper sulfate may trigger a "brand" of algae resistant to the chemical.

It has been demonstrated time and again that copper accumulates in the sediments of a treated pond or lake. Such bodies of water, treated constantly over a period of ten years, can have a concentration of copper in their sediments which exceeds that in a commercial copper mine.

There are better ways to counteract algae problems than using copper sulfate. In seeking answers to water problems, it is helpful to understand just what the body of water really is. A certain lake will support only a defined poundage of fish per acre; weeds of only a certain kind.

Lakes are like people: No two are alike. And if a body of water is ailing or is not as usable as is wished, then a water "doctor" can be of help.

Because the possibilities for control of water problems are changing constantly, up-to-date controls must be considered before choosing one or more for action.

To help understand some of the choices, I asked the staff at the Institute to construct a simple outline of the major, practical ways to control water quality in lakes. The following is the outline as present. I wish to thank Beth Elleby and her co-workers for this information.

A lake's character is the result of thousands of years of natural and unnatural use and abuse. It is unrealistic and impossible to reverse the results of these years by a "quick fix". What we have to do is figure out ways to approach the special problems, and try to counteract these problems.

#### Methods of Lake Water Quality Control

##### Chemical control:

Direct nutrient control - making existing chemicals unavailable by using other chemicals

Herbicides - using chemicals toxic or poisonous to plants

Pesticides - using chemicals toxic to undersirable fish

Biological control: (population control through a predator-prey relationship)  
Niche manipulation - making it possible for desirable species to flourish over undesirable species

Pathological control - using parasites or reproductive inhibitors

Bacterial control - using certain species that are lethal to other species

Physical Control:

- Aeration and circulation - supplying oxygen for decomposition and fish survival
- Dredging - removing sediments contaminated with nutrients or poisons
- Dilution and flushing - raising and lowering water levels
- Harvesting - cutting and removing weeds, fish and algae
- Bottom sealing - coating the lake bottom with materials, cutting off nutrient sources
- Explosives - rupturing cells of living matter by pressure

Watershed control:

- Better agricultural practices
- Soil conservation
- Marshland management
- Shoreline management
- Private ownership practices
- Creation of holding ponds

NORTH LAKE IMPROVEMENT GUIDELINES

Our primary problem is an excessive level of nutrients in the water - especially phosphorous and nitrogen that accelerate weed and algae growth, and ultimately bacteria growth. The following guidelines were developed from a number of sources, including the University of Michigan Biological Station, the study completed for us by Prof. Clifford R. Humphrys of Michigan State University, and the Michigan Department of Natural Resources. The guidelines are designed to reduce the level of nutrients entering the lake. We hope everyone will join together to improve our quality of life on the lake and to protect our property values for ourselves and our children.

**\*\*Don't fertilize - lawn and garden fertilizers ultimately end up in the lake because North Lake is ground water fed, according to Prof. Humphrys. Instead, water from the lake and reseed your lawn with grass varieties that have low nutrient requirements. Watering from the lake uses nutrients already in the water and helps filter the water before it returns to the lake. If you absolutely must fertilize because your lawn is dying, do it lightly only during the growing season in May, and do not fertilize within 50 feet of the shoreline or over your septic system drainfield. Do not fertilize just before it rains. Remember, if a resident fertilizes because he thinks one person won't hurt, it undermines the efforts of all others on the lake who sacrifice lush green lawns for a cleaner lake.**

**\*\*Improve septic system efficiency - research by the University of Michigan has found that we can improve the efficiency and life of our septic systems by following a few simple rules:**

1. Conserve water - the less water used, the better a septic system works. In addition, your electric bill is reduced because your pump runs less and you conserve energy. To reduce the use of water, you can:
  - add two or three bricks or a plastic jug filled with water to your toilet tank,
  - repair dripping faucets and toilet leaks

- use the dishwasher or washing machine only when there is a full load (along with low phosphate detergents),
  - use water conservation devices like flow-control shower heads and low-flush attachments for toilets,
  - reroute away from the lake rain gutters and footing drains that are connected to your septic tank.
  - replace old appliances and plumbing fixtures with new ones that are designed to conserve water - dishwashers, washers, one gal. Thetford toilets, or 3 gal. conventional toilets (most have 5 gal. tanks).
2. Maintain your septic system - like anything else, it will deteriorate more quickly with neglect. Maintenance recommendations include:
- pump and clean the tank at least every 3 to 5 years. If you don't, sludge will flow into the drainfield and eventually clog it so there is no filtering process left. There are several local companies that will do this for you at a reasonable cost, and considerably cheaper than a new drainfield! Don't wait until you have problems to have the tank pumped - if you do, the drainfield is probably already plugged.
  - avoid letting substances that kill bacteria get into the septic tank - bacteria include poisons, drain cleaners, bleach, disinfectants, paint and chemicals.
  - prevent wastes that will not decompose and clog the drainfield from getting in to the septic tank including grease; hair, cigarette butts, band-aids, facial tissues, paper towels, and solid wastes from a garbage disposal.
  - don't exceed design capacity for a septic tank and drainfield or use a garbage disposal unless the system is designed for it. A common mistake is to convert a cottage into a year-round home without enlarging a totally inadequate septic system.
  - avoid parking or building on a drainfield because it compacts the soil and hinders the filtering of waste water.
3. If your system is not working properly, have it repaired - as unpleasant and costly as it may seem, it won't get better by ignoring it! In the meantime, you may be contaminating well water in the area along with the lake. You can tell if your system needs attention if toilets back up, drains won't drain properly, there are foul odors around the tank or drainfield, or there is excessive moisture over the drainfield.
4. If you must put in a new system, investigate systems with holding tanks, locate the system as far as possible from the lake, and obtain expert advice. In addition to the Health Department, we are fortunate to have experts on the lake who are willing to provide free professional advice; for more information, call any Board member.
5. Test every three to five years with a septic system dye to be certain waste is not draining into the lake. The Association has purchased a dye and will provide it at no cost to anyone who will test their system. We encourage everyone to do so - attend the Annual Meeting or contact any Board member if you're interested.

\*\*Plant a tree or shrub - experts strongly recommend increasing greenbe s between the water and the residential area - especially between the lake and septic systems. Check for soil erosion; seed exposed soil or plant ground covers, trees, and shrubs to minimize sedimentation into the lake. Trees

and shrubs act as a filtering system for run-off into the lake, reduce erosion and add to the beauty of the shoreline. Any tree, shrub, or ground cover that will grow in existing soil or light conditions will work. Obviously, low-lying plantings should be used where the view may be obstructed, and flowering trees and shrubs will add more beauty to the shoreline. Imagine the effect in a few years if everyone on the lake planted one tree!

\*\*Remove leaves and weeds from the water - fallen leaves, aquatic weeds, and other debris should be removed from the lake and taken away from the water's edge as far as possible. If they are left in or near the water, they will decompose and add nutrients to the water. Don't burn leaves near the water or in an area that will wash into the lake - this is even worse than leaving them to decay in the water because of their high phosphorous content.

\*\*Encourage Dexter Township Board of Trustees to enact zoning restriction to protect the lake - this is the cornerstone of any lake improvement program according to experts. The Township Board publicly stated six years ago that it would seriously consider enacting a keyhole ordinance and increasing set-back lines for lake properties to minimize the effects of future development on the lakes. (A keyhole ordinance, if properly written, would prohibit a relatively small area of lake frontage from being used as a private park for a residential area not on the lake.) The Board of Directors of the Association asks all members to support these efforts by encouraging the Trustees to enact restrictions that will minimize adverse effects of future development on our lakes.

\*\*Improve boating and swimming safety - Prof. Humphrys' study in 1977 concluded that we had too many boats for safe operation. There are simple rules that we can follow to improve the safety of everyone's enjoyment:

1. Check the number of boats on the lake before going out - the lake can handle safely only about ten boats with water skiers, according to Prof. Humphrys, and substantially fewer if there are fishing boats, sailboats, and power boats on the lake. If there are too many boats, wait a few minutes until some have gone off the lake.
2. Stress with power-boat drivers and other boat operators observance of the Michigan Inland Lakes Safety Code before we have a serious accident.

#### SEPTIC SYSTEM DYE STILL AVAILABLE

Plenty of dye is still available if you wish to test your septic system to be sure it isn't draining directly into the lake. A system should be tested every three to five years. The dye is free, so attend the Association's Annual Meeting on June 16 - it will be available to anyone who wants it.

Reminder

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Please forward your annual dues in the amount of \$5.00. The Lake needs your support.