

TEN MILE LAKE ASSOCIATION
1980 NEWSLETTER

CONSTRUCTION GRANTS PROGRAM

In the newsletter sent just before Christmas we described the manner in which our Association has applied for allocations in the Construction Grants Program to have every septic system around the lake brought up to standards, with federal and state funds paying for 90% of the costs -- in some cases up to 96%. Our application was favorably received by the Minnesota Pollution Control Agency, and we are keeping in touch with the officials there who administer these grants for Minnesota under authority of the Environmental Protection Agency in Chicago. They tell us that our application passed the first hurdle and that we have been placed on the Municipal Needs List.

There are many hurdles ahead, and it could be several years before we conclude a firm agreement with the EPA. Right now the funds are frozen, but this is not unusual in an election year. It is expected that "business as usual" will resume after November. A recent change in policy requires greater "public participation," and it is quite possible that we will be required to hold some public meetings here this summer to maximize the extent to which our participants are informed.

TEN MILE RATES HIGH IN WATER CLARITY

If you're among those who believe that Ten Mile Lake ranks as one of the clearest bodies of water in Minnesota, you probably are right on target.

Test data from the Minnesota Pollution Control Agency on 121 Minnesota lakes indicate that only five of the lakes monitored in 1979 had greater clarity than Ten Mile.

The comparisons are based on Secchi disc readings taken during July and August. The average transparency depth for Ten Mile Lake during that period was 17 feet. According to the MPCA, that figure means Ten Mile Lake not only was one of the state's six clearest lakes among those studied in 1979, but it also had better water clarity than at least 95 percent of the lakes studied since 1973.

The Association is cooperating with the MPCA's Citizen Lake Monitoring Program and will continue to do so. Credit for our participation goes to Warren Goss who almost single-handedly has taken Secchi disc readings virtually the year around, as he has temperature and dissolved oxygen readings at various depths. All of this information is forwarded to the MPCA.

Warren reports, incidentally, that in February of this year he chopped a hole in the ice, lowered the Secchi disc to the end of its 27-foot cord, plunged his arm down into the water as far as he could, and the disc still was plainly visible. He figures the transparency reading had to be more than 30 feet.

Readings for the early part of the 1980 season are similar to those of past years -- 18.5 feet on May 1 and 18 feet on May 15.

The graph reproduced on the next page demonstrates how Ten Mile Lake "stacked up" in the 1979 monitoring program.

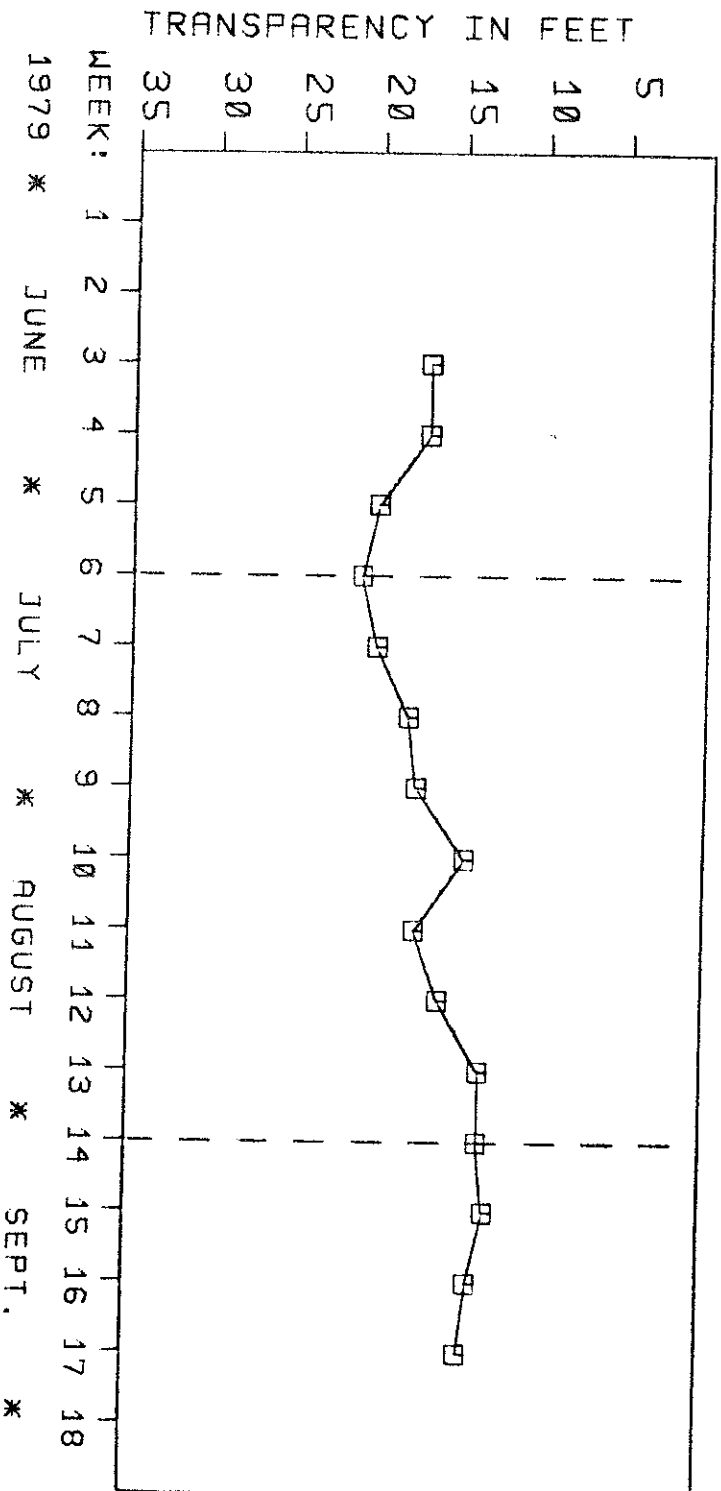
LAKE MONITORING

Many types of measurements are being conducted regularly to determine whether Ten Mile Lake is deteriorating from pollution or other causes. The FMC Corporation conducted limnological surveys for four years commencing in 1975, from which we acquired great quantities of analytical and biological data which are proving useful to us now in seeking federal and state funding under the Construction Grants Program to upgrade all standard septic systems. Last year the Minnesota Pollution Control Agency took over these studies and had the analytical work done for us by the Minnesota Board of Health.

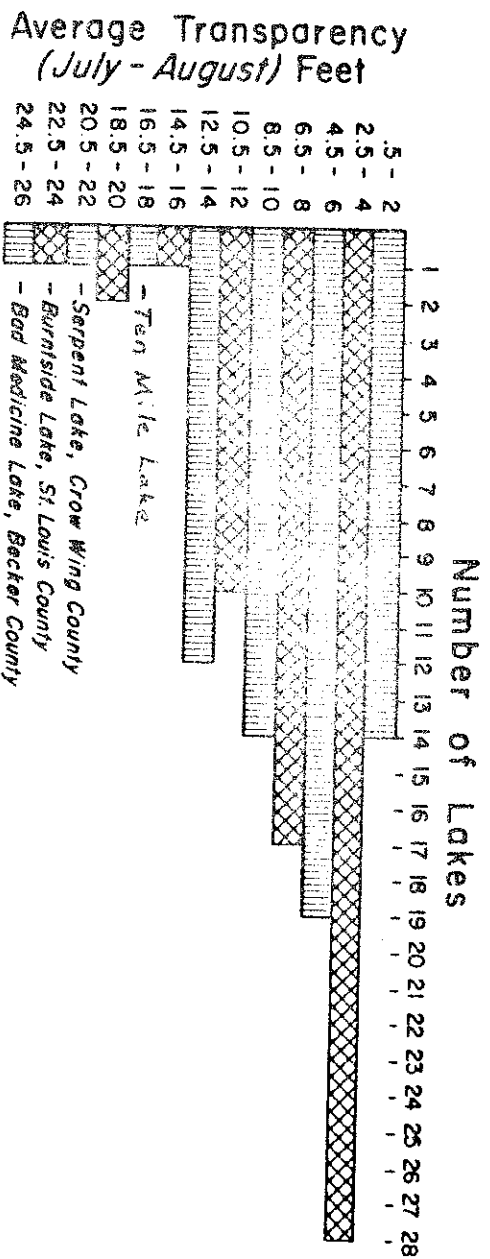
Without going into detail, we can summarize the data obtained thus far by concluding that Ten Mile Lake is still in excellent condition. The various tests being conducted require a great deal of year-around work and include:

1. Profiles of temperature (from the surface to the bottom at the deepest place) every week or so in the ice-free season and about once a month during the winter.
2. Profiles of dissolved oxygen simultaneously with the profiles of temperature.

TEN MILE COUNTY LAKE ID 11-0413 SITE 202
 MEAN FOR WEEKS 6 TO 14 IS 17.0 (NEAREST .5')
 WATER IS NOT COLORED
 ALGICIDE NOT USED



To see how your lake fits in with others in the 1979 program, compare its "mean for weeks 6 to 14" with the graph of average transparencies below.



Distribution of 1979 Lake Transparencies
 Citizen Lake Monitoring Program

Figure 1

LAKE MONITORING - continued

3. Profiles of conductivity, which is closely related to total hardness.
4. Secchi disc readings (clarity) approximately every week in the ice-free season, occasionally in the winter.
5. Analytical determinations of the concentrations of phosphorus and nitrogen and also color of the water, approximately four times each summer.
6. Water level approximately every week during the ice-free season.

7. Precipitation, daily in the ice-free season and monthly during the winter as part of the Deep Portage Weather network administered by the State Climatologist.

Many other tests could (and in some cases probably should) be run, but we lack either the facilities or volunteers or both. An example is fecal coliform. Another important but difficult study needed is paleontologic examinations of the lake bottom in one or more deep holes. It is here that decaying algae and other organic matter accumulate, and we don't know just how fast this mass of gooey muck is being deposited. It is no doubt caused partly, and maybe principally, by the deposition of decaying algae nourished by nutrients from our septic systems.

We see so little evidence of these deposits of organic muck in the depths of Ten Mile Lake because it is so deep where the muck collects, and consequently there is a limit of the extent to which constituents of the bottom muds can find their way upward into the photic zone where their presence is or would be very harmful. This problem is much more serious in shallower lakes.

So, although it is reassuring to observe by our monitoring programs that Ten Mile Lake remains in excellent condition, we must remain aware that deterioration does proceed constantly, albeit slowly, and that the evidence is far down in the deep spots where we don't see it and can't readily measure it.

SHERIFF'S WATER PATROL PROMOTES SAFETY ON TEN MILE LAKE

Again this summer Duke Gray is operating the Sheriff's Water Patrol to promote safety as well as courteous conduct on the water. He is deputized and will make arrests if necessary, but when violations occur he prefers to have a friendly discussion with the offender and warn against repetition of the improper behavior.

It is our ambition that Ten Mile continue to be known as an outstanding lake with respect to water safety and boating courtesy. Here is a list of watercraft violations that will result in arrest and fines -- very large fines in many instances:

- Operate or give permission for use operation of an unlicensed watercraft
- Failure to display valid registration
- Failure to notify Commission of transfer of watercraft ownership.
- Rent watercraft out of condition, without legal equipment as prescribed by the Commissioner
- Operate watercraft in a careless manner in disregard for rights or safety of others (you are responsible for your wake)
- Operate a watercraft so as intentionally to obstruct or interfere with an airplane.
- Operate a watercraft within 150 feet of a diver's warning flag
- Operate a watercraft in a grossly negligent or reckless manner so as to cause injury to another or damage to property of another
- Operate watercraft without proper equipment
- Permit operation or operate watercraft after suspension of license
- Permit person 13 yrs. or younger to operate watercraft propelled by over 24 HP without proper person aboard
- Illegally obstruct navigation or moor to channel markers
- Operate watercraft in marked swimming areas
- Illegally operate a watercraft while towing a waterskier or similar device without observer or curved mirror
- Operate a watercraft or being towed by a watercraft while waterskiing (or engaging in similar activity) more than one and one-half hours after sunset or more than one and one-half hours before sunrise.
- Operate a watercraft with persons riding on gunwales, deck, bow or transom

- Operate watercraft while under the influence of drugs or alcohol
- Failure to stop watercraft when involved in an accident; failure to make report of accident to sheriff (hit and run)
- Failure to have legal life saving devices on board watercraft
- Operate watercraft without legal lighting equipment
- Operate a watercraft without a horn or whistle
- Operate a watercraft without a muffler
- Operate a watercraft without a device for arresting backfire
- Operate a watercraft without legal fire extinguisher/ventilation
- Hold or sponsor race, regatta, etc., without permit from the sheriff
- Illegally place a hazard to navigation in waters
- Illegally remove, damage or destroy buoys
- Place buoys or other markers in waters not conforming to uniform marking system prescribed by Commissioner
- Illegal scuba diving
- Operate or permit operation of watercraft with marine toilet not approved by law.

It is important that the officer see the offense himself in order to take corrective action, so don't delay one minute in reporting illegal acts that are occurring. Call Duke (Darwin) Gray at 675-6857. If you get no answer, call the Sheriff in Walker at 547-1424.

CLEAR WATER TOMORROW? IT'S UP TO YOU!

A report elsewhere in this newsletter on Ten Mile Lake's water clarity represents a challenge to all of us to do everything we can to maintain or even improve an already good situation. Here are some pointers that can help do just that:

-- If your septic system doesn't conform to the Cass County zoning standard (100-foot setback from the shoreline, bottom of trenches a minimum of 4 feet above the water table, the tank itself to be of water-tight construction), have it upgraded. Your township zoning officer can tell you whether your system conforms to the ordinance.

-- Do not fertilize your lawn. At least 90 percent of any fertilizer that is spread on a lawn will find its way into the lake, according to scientists at the Freshwater Biological Institute. That, of course, means lake enrichment and, if the process continues, an increase in algae.

-- Do not use the lake as a garbage pit. It's not only unlawful to deposit fish cleanings and other refuse in the lake, it's detrimental to water clarity (and quality) as well.

REPORT NEW LAKE RESIDENTS TO MRS. BAIR

Our membership chairperson, Mrs. Cecil Bair, reports that the Association's membership stood at 416 in mid-May. If you have new lake neighbors or know of anyone who has recently purchased property on Ten Mile Lake, call Mrs. Bair at 675-6459 with the names so she can get in touch with them about possible Association membership.

PUBLIC CAN CALL DNR TOLL-FREE

The Department of Natural Resources now has a toll-free telephone number for the convenience of those who wish to contact agency officials with problem or complaint.

Located at central headquarters in St. Paul, the toll free number is 800-652-9067. The number can be called from anywhere in Minnesota between the hours of 8 a.m. and 4:30 p.m. at no expense to the caller.

DNR personnel answering the phone will either provide the desired information or take the name and phone number of the caller and have a knowledgeable agency employee look into the matter and return the call.

FINGERLINGS ARE BEING RAISED IN JAKE'S POND AGAIN THIS YEAR

In our last newsletter we mentioned consideration being given to let Jake's Pond rest for a year. It has also been suggested that we locate a second rearing pond and use the two of them in alternate years. Here are some thoughts we might want to consider:

1. Prof. James C. Underhill, who is a world-renowned expert and the author of several books on fish in Minnesota, did a great deal of test netting in Ten Mile Lake last fall and was continually amazed at what a high walleye population we have. He expressed the opinion that letting Jake's Pond rest for a year would produce no noticeable effect on the number of walleyes in Ten Mile Lake and probably would improve (restore) Jake's Pond.
2. Suitable rearing ponds are difficult to find. The DNR has been trying for several years to locate a satisfactory one for the Woman Lake Association but thus far hasn't found one that produces properly. If we should locate another good one, we might have to share its output with some of our friends in other nearby lake associations.
3. Our Fish Committee is open-minded on the suggestion of two rearing ponds. It certainly has merit but would pose difficulties.

It was decided to stock Jake's Pond again this year and to fertilize it. Another 60,000 fry were introduced by the DNR on May 6, and a few days later the Ten Mile Lake Association added nearly a ton of soybean meal which is intended to promote growth of algae. The algae comprise the chief diet of the fry until the latter get big enough to dine on insects and other animal organisms.

STUDIES OF DWARF TULLIBEES CONTINUE

Prof. James C. Underhill of the University of Minnesota and several of his graduate students conducted further studies last fall of the unique dwarf tullibeas that inhabit Ten Mile Lake and swarm shoreward in October to spawn. He was assisted by the local DNR people and the Ten Mile Lake Association as well as by Mr. Dean Hickey who is District Ranger here in the Chippewa National Forest. We still don't know how these little ciscoes got here, what causes them to be dwarfed or just what their role is in the fishability of Ten Mile Lake. Prof. Underhill's present plans this summer include SCUBA work by some of his students to determine where these little fish spend the summer doing what.

Last February 8, Prof. Underhill presented a seminar at the University of Minnesota about Ten Mile Lake and these unusual fish, attended by approximately 100 department heads, professors from other departments and graduate students. This writer was privileged to be a guest both at the lecture, which was very well presented, and later at a luncheon where a smaller group of faculty members had a long and interesting discussion of what we have learned, what questions remain, etc.

It was determined early in these studies that the dwarfed condition is due to environmental rather than genetic factors. It is suspected that competition with whitefish might be responsible, and the exploration of this theory by introducing whitefish into Elk Lake is being continued. Last November the DNR transferred another 260 whitefish from Ten Mile Lake. A few years from now, we're not sure just when, observations will be made to ascertain whether the newly created competition with whitefish affects the size of the indigenous tullibeas.

YACHT CLUB READY FOR SEASON

An invitational regatta on July 10 and 11 headlines a big season lined up by the Ten Mile Lake Yacht and Tennis Club in summer '80.

"We have advertised in the yachting publications and Gull Lake and Pelican people have indicated they will come," said Byron Hoffman, chairman of the event.

Entry fee is \$37 and includes participation in three races daily, two lunches and a chance at six trophies.

"We would like some volunteers to assist on committee boats and shuttling," said

Hoffman. "Some large boats with operators will be helpful."

In a letter to members, Commodore Chris Brandt gave this schedule of regular racing:

- June 28 or 29 summer series
- July 4 and 5 Fourth of July regatta
- July 12 or 13 summer series
- July 19 or 20 summer series
- July 26 or 27 summer series
- Aug. 2 or 3 trophy races and summer series
- Aug. 9 or 10 trophy races and summer series
- Aug. 16 and 17 Moxness Trophy Regatta

There will be four races the July 4 and 5 weekend, and Aug. 16 and 17. Races start promptly 10:30 a.m. Saturdays unless postponed until Sunday.

HOW ABOUT A FISHING CONTEST?

The Ten Mile Lake Association is considering a fishing contest for lake residents sometime during the 1981 summer season -- IF there is enough interest to make it worthwhile.

Needed are 10 volunteers to plan and stage what was initially proposed as a one-day affair. Among other things, the contest committee would need to consider and make decisions on:

1. Eligibility
2. Contestant classifications
3. Fish species
4. Prizes
5. Hours
6. Judging
7. Accompanying activities
8. Date and alternate

If you'd like to serve on this volunteer committee, call Duke Gray, chairman of our Fishing Committee, at 675-6857.