

# MISSAUKEE LAKES ASSOCIATION, INC.

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Date: December 1, 1997

To: Missaukee Lakes Association, Inc. (MLAI) Board Members

From: Richard A. Morrow, President

RE: 11/25/97 Meeting With Environmental Attorney On Indian Lakes Development.

Dear Fellow Board Members:

On November 25, 1997 I met with environmental attorney, David Meyer, representing the law firm of Smith, Bovill, Fisher, Meyer & Borchard; PC, located in Saginaw. The purpose of the meeting was a follow-up to our Board Meeting held on October 19, 1997, where you approved this interface to consider MLAI's options in protecting Lake Missaukee from potential pollution and the future property owners of the Indian Lakes Development from purchasing property without proper disclosure of the conditions of the lake bottom and the need for permitting should they decide to dredge, fill, etc.

I called Mr. Meyer prior to our meeting and informed him of our concerns, so he was prepared for our interface. He was very blunt, and I appreciated his frankness, openness and honesty. To cut to the chase, here is where we stand based on his expertise:

Our situation falls under the statute, Michigan Environmental Protection Act. As such, our best chance for success hinges on several factors:

1. We must bring an action in circuit court for equitable relief....based on the likelihood of environmental impairment; i.e., development impact on fish, birds, nesting areas, aquatic plant life, etc., something the court can look at. Key words are **likelihood of pollution, impairment and/or destruction**. A deliverable from this action would be to file/record this likelihood with the register of deeds. This would become a permanent record on the deed. This would not only play a vital roll in protecting perspective buyers, but would make the developer take a second look at the value of his endeavor and its risk.
2. We need to find someone who is a recognized expert willing to support our position in a court of law. He stated we would absolutely be wasting our money without this expert.

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33811 HUNTERS POINTE  
FARMINGTON HILLS,  
MICHIGAN 48331

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PROMOTING LAKE  
▼ QUALITY  
▼ EDUCATION  
▼ SAFETY

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3. The seller (developer) must tout this property as **lakefront property**, which sets an expectation level for the purchaser.

He also stated that if the development would be held up due to our action, we should expect a countersuit from the developer.

I asked Mr. Meyer if he could recommend an expert to assist us. He stated that he will contact a professor friend of his at Eastern Michigan University, who trains the DNR(DEQ) on wetland delineation and environmental protocol, and is recognized and knows others who are recognized as experts in these matters. He will contact me in the next week or so. I also asked him to provide an estimate on our financial obligations if we were to pursue this matter in court. I'll keep you informed.

Mr. Meyer also stated that the Lake Township Board had no choice but to give tentative plat approval to Indian Lakes Development, based on current law/circumstances. The onus is on us to get something to the register of deeds depicting the above scenario. The only way to accomplish this is through the judicial system.

If you have any other angles or questions you want me to pursue, please get back with me as soon as possible. In the meantime, keep reminding our membership to pay their dues. We will need their investment if we are to successfully engage in this action. I am sure it will cost a pretty penny, but who knows, maybe the Eastern professor is just a nice guy, trying to preserve the environment against the evils of greed.

Sincerely,

A handwritten signature in cursive script, reading "Richard A. Morrow".

Richard A. Morrow

cc: file



## J & L CONSULTING SERVICES

- Environmental Assessments
- Mitigation Plans and Permits
- Site Evaluation and Analyses
- Wetlands Mapping

26 December 1997

Mr. Richard A. Morrow  
Pres., Missaukee Lakes Association  
33811 Hunters Pointe  
Farmington Hills, MI 48331

Re: Cost Estimate and Initial Steps, Proposed Indian Lakes  
Land Development LLC, West end of Lake Missaukee

Dear Mr. Morrow:

In response to our meeting on Monday, 12-22-97, a cost estimate is being forwarded to you, along with some suggestions for starting our environmental work.

With regard to the cost estimate for the assistance by J & L Consulting, an estimate of approximately \$2,000 is hereby submitted. This will cover our meeting on 12-22-97, an all day trip to Lake Missaukee, and preparation of a follow-up wetlands report.

To get started, it is recommended that your association obtain the following.

-An aerial photograph from Missaukee County, especially of the west end of Lake Missaukee. This aerial photograph should be at a scale of 1 inch equals 200 feet or at least 1" = 400 ft to be useful for wetland mapping. The Planning Department of Missaukee County at Cadillac, MI may be the source for the aerial photos.

-Color slides (section centered) from the Natural Resources and Conservation Service (formerly the SCS), USDA, in Cadillac. The NRCS usually takes color slides in July annually from aircraft.

During my trip to Lake Missaukee on 12-28-97 (barring heavy snows), I would like to drive the cul de sac road (off Crooked Lake Road) on the subject development property. In addition, from a boat I would like to map the lot stakes along the shoreline to ascertain whether these corner stakes are in wetlands. Also, I want to document any wetland filling which may have taken place when the road was bulldozed last year.

It will be important for someone in your group to develop a relationship with the Planning Commission of Lake Township. Lake Township may wish to take the following positions in regard to the 80-lot proposed site condominium development.

-That no action be taken as regards preliminary plat approval until the wetlands in the subject area have been delineated in the field (i.e., flagged), surveyed in, and plotted on a drawing at a scale of 1" = 100 feet or thereabouts.

-2-

-To protect the fragile end of Lake Missaukee and to protect the wetlands along the shoreline (which function as a buffer), ensure that no proposed lots extend into the wetlands along the shoreline.

-Because of the sewer line which is to connect the two separate portions of the development, a study of the wetland quality should be undertaken, including a threatened and endangered species study. This study will help direct the routing of the sewer line which should avoid high quality wetlands and may take advantage of the old railroad bed on the west side of Lake Missaukee.

-That Indian Land Development be required to establish a condominium association that will be responsible for any development outside of the 80 lots, including in the riparian zone.

-That the Tar Pit issue near Jennings Road in Crooked Lake be studied to ensure that contaminants from the previous operation have not contaminated the bottom sediments of the western end of Lake Missaukee. In the past a creek connected Crooked Lake with Lake Missaukee, and contaminants could have dispersed into Lake Missaukee.


It appears as though a MDEQ wetlands permit will be required when this development moves forward. Some wetland filling has probably already taken place in the cul de sac area near Crooked Lake Road. Also, road crossings of wetlands and wetland edges seem obvious in the northern development area. Finally, a few of the proposed lots may be questionable (i.e., not developable) once the wetland boundaries are established on the detailed site plan drawing.

The installation of the sewer line connecting the two parts of the proposed developed will cross consideration wetland, including the old creek connection between Crooked Lake and Lake Missaukee. This sanitary sewer line will also necessitate MDEQ approval in the wetlands permit application.

To save some money, your lake association could contact Mr. Steve Voica, of Voice & Associates, at 616/582-3498. Steve Voica is a reliable wetlands consultant, and he lives in the Boyne City area which is closer to Lake Missaukee than my home office.

I look forward to hearing from you regarding this cost estimate.

Sincerely,

  
Eugene Jaworski, PhD  
Principal



ENVIRONMENTAL ASSESSMENT  
LAKE MISSAUKEE, OF LAKE TOWNSHIP  
MISSAUKEE COUNTY, MICHIGAN

6 March 1999

Prepared for:  
Missaukee Lakes Association, Inc.  
33811 Hunters Pointe  
Farmington Hills, MI 48331

Prepared by:  
J & L Consulting Services  
32 N. Clubview Drive  
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# INSTITUTE FOR FISHERIES RESEARCH

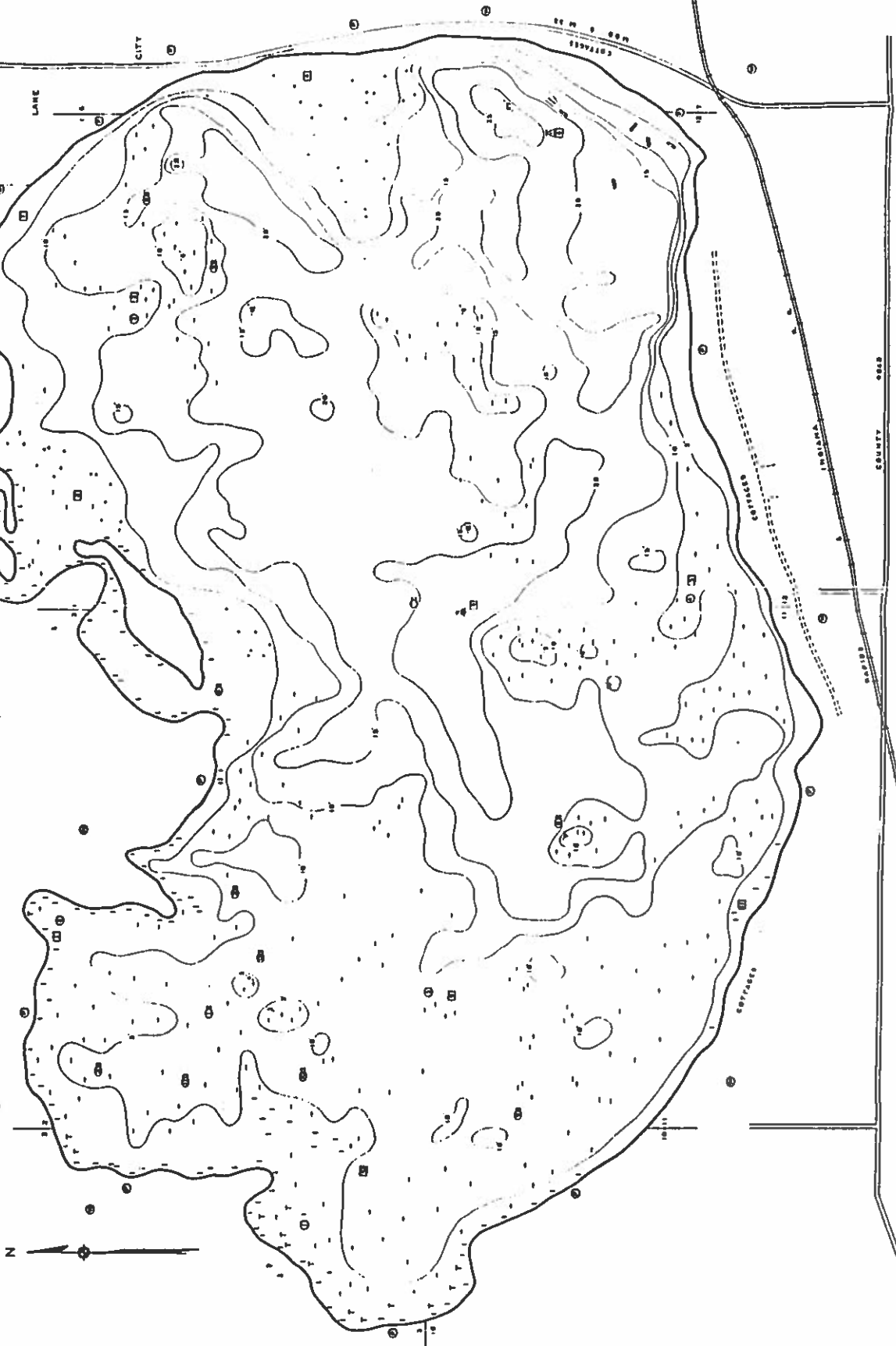
DIVISION OF FISHERIES MICHIGAN CONSERVATION DEPT

LAKE INVENTORY MAP

## MISSAUKEE LAKE

AREA 1880 ACRES

MARGINAL SURVEY & SOUNDINGS JULY 5 2/24-2/24/48  
FISH SURVEY 7/11-7/12/48 INVENTORY 8/25-10/41  
MISSAUKEE CO. T22N-R7E-W-SEC. 123 123 123 123



### LEGEND

- BOTTOM**
  - Sand
  - Gravel
  - Shells deadheads etc
- VEGETATION**
  - Emergent
  - Submergent
  - Shoreline
- OUTLINE & CONTOURS**
  - Shoreline
  - Contours
- SHORE FEATURES**
  - Trail
  - Road
  - Railroad
  - Section line
  - Brush
  - Pasture or cleared
  - Wooded
- STATIONS**
  - Vegetation
  - Plankton
  - Temp Chem & plankton
  - Bottom sample
  - Fish sample

TO ORDER, CONTACT:  
MICHIGAN UNITED CONSERVATION CLUBS  
P.O. Box 2238  
Lansing, Michigan 48911

"Base maps prepared by Michigan Department of Natural Resources and reproduced with their permission."

FIGURE 2.

# CROSS-SECTION, LAKE MISSAUKEE

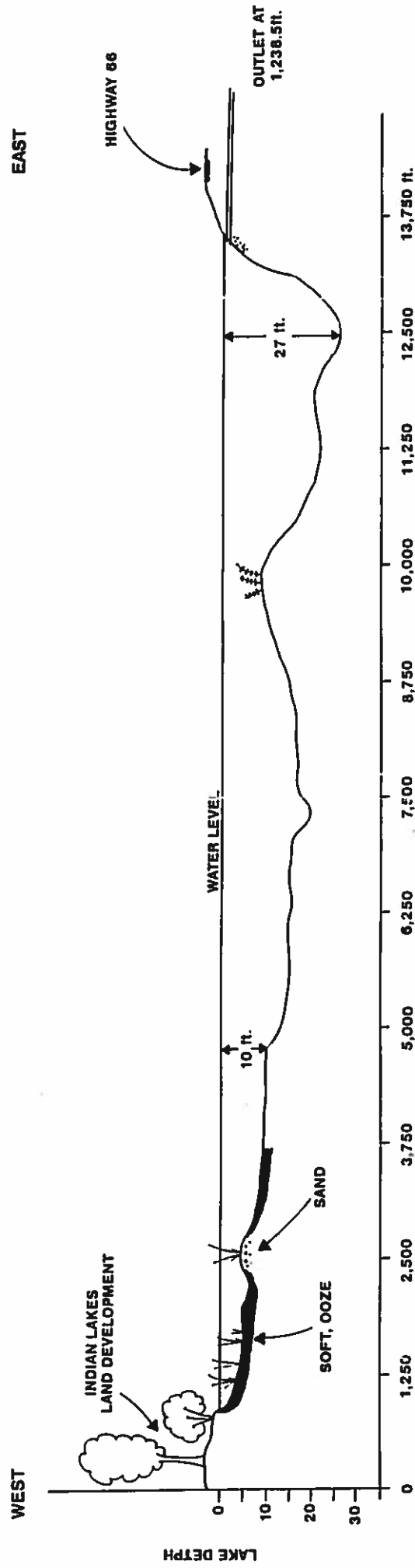


FIGURE 3.

SOILS MAP FROM SOIL SURVEY



FIGURE 5.



TABLE OF CONTENTS

	<u>Page</u>
A. Need for Environmental Assessment . . . . .	1
B. Description of Lake Missaukee . . . . .	1
1. Size, Shape and Depths . . . . .	1
2. Water Level and Control Structure . . . . .	1
3. Drainage Area and Flushing Rate . . . . .	2
4. Quality of the Water . . . . .	2
C. Fisheries in Lake Missaukee . . . . .	3
D. Soils about Lake Missaukee . . . . .	4
E. Boating in Lake Missaukee . . . . .	5
F. Recent Extension of Sanitary Sewer Lines . . . . .	6
G. Need for Wetland Mapping and Protection . . . . .	6
1. Wetland Regulation . . . . .	6
2. Description of the Wetlands . . . . .	7
3. Wetland Disturbance/Filling . . . . .	7
H. Proposed Indian Lakes Land Development . . . . .	8
1. Wetland Mapping . . . . .	8
2. Soft, Unconsolidated Bottom Sediments . . . . .	9
3. Check for Listed Species . . . . .	10
SUMMARY AND RECOMMENDATIONS . . . . .	10
BIBLIOGRAPHY . . . . .	13
List of Figures, Plates and Tables . . . . .	14
VITAE of Eugene Jaworski. . . . .	16

## ENVIRONMENTAL ASSESSMENT OF LAKE MISSAUKEE

### A. Need for Environmental Assessment

Lake Missaukee is a 1,880 acre lake which is relatively shallow, and is becoming increasingly developed along the shorelines due to both seasonal cottages and permanent homes. See Figure 1 - Location Map. In response to water quality concerns, sanitary sewer lines have recently been extended on northern and southern sides of the lake. However, because large shoreline projects, such as the Redman Island which was developed during the mid-1960s, can cause widespread turbidity in the lake and wetland loss, there is concern that the proposed 7,200-acre Indian Lakes Lands Development will adversely affect this water body, including reduction in the equity of the riparian properties.

### B. Description of Lake Missaukee

#### 1. Size, Shape and Depths

According to maps obtained from the Michigan Conservation Clubs, Lake Missaukee is 1,880 acres (2.94 square miles) in size. See Figure 2 (MUCC Map of Lake Missaukee in 1953). This lake is relatively circular, except for the peninsula-like Redman Island area and a marshy point on the west side of the water body.

As indicated in the east-west cross section (Figure 3), water depths in the lake range from 5 to 27 feet. The average water depth is 10.5 feet, and the maximum depth is only 27 feet. Thus, Lake Missaukee is relatively shallow, and exhibits a dish-like cross section. As a result of shallowness, not all of the lake will exhibit a vertical temperature stratification during the summer. Deeper lakes always stratify during the warm months.

The bottom sediments range from peat, sand, and clay (Hugger 1993). Shallow, wetland areas tend to be peaty; shoreline areas where wave action occurs are sandy; and quiet backwater areas tend to have clayey or organic-rich bottom sediments. Also, the bottoms of the deeper areas of the lake consist of soft, pulpy peat.

#### 2. Water Level and Control Structure

On 31 May 1974 the water level of Lake Missaukee was officially set at 1,238.5 feet above sea level. This action took place per Case No. C 347, Circuit Court for the County of Missaukee, with the Honorable William R. Peterson, Circuit Court Judge, presiding.

Thus, the water level of Lake Missaukee is controlled. The control structure (i.e., outlet structure) occurs on the east side of the lake. More specifically, the outlet is located south of the long pier near the M-66 Highway (Plate 1). The outlet outfalls to Mosquito Creek which is a tributary to Clam Creek (which drains

into the Muskegon River). There is a gate on the outlet structure which provides for changing the outflow levels during emergencies.

### 3. Drainage Area and Flushing Rate

According to Marsh and Borton's (1974) Michigan's Inland Lakes and their Watersheds publication, the watershed surrounding Lake Missaukee is only 1,775 acres (2.77 sq miles). Given a lake surface area of 2.94 sq miles, the area of the surrounding watershed is less than the surface area of the lake. Thus, this lake probably fluctuates in level seasonally, and would be higher in late winter & early spring, and lowest in late summer or fall. However, since 1974 the outflow weir eliminates high water levels.

Based on calculations by Wallace Fusilier (Appendix A), the flushing rate for Lake Missaukee is 9 years. Therefore, only 11 percent of the lake water is flushed out through the control structure each year. That relatively low flushing rate means that nutrient levels and potential contaminants in the water do not flush out of Lake Missaukee very quickly, and hence can accumulate in water column and/or bottom sediments.

Data collected by the US Geological Survey per the stream gauge on the Mosquito Creek downstream of Lake Missaukee indicates that only about 7 inches of the 30 inches of annual precipitation is discharged yearly out of the lake. In contrast, most inland lakes in Michigan, according to Wallace Fusilier (Appendix A), discharge 9 to 11 inches of the total annual precipitation. Thus, it appears that even though some surface drainage from west of Missaukee Lake enters the lake, along with direct precipitation and some groundwater springs & seeps, the wetlands surrounding the lake may actually hold and transpire some of the lake's water, especially during the late summer months.

Also, because the watershed of Lake Missaukee is relatively small, compared to the surface area of the lake, it is the land use about the shorelines that has the most significant impact on the lake's water quality, and not the land use within the surrounding watershed.

### 4. Quality of the Water

The water quality of Lake Missaukee has been studied to some extent. There is some older water quality data available on line via the U.S. Environmental Protection Agency's STORET system. See Appendix B. At a single sampling station in Lake Missaukee, a number of parameters were sampled for the years 1970, 1973, 1974, 1978, 1979, and 1987. The 1973 sampling data indicate severe dissolved oxygen depletion at depths for that year, along with very high nitrate nitrogen and total phosphorous levels. These three parameters were probably affected by the dredging and filling at Redman Island and elsewhere along the shoreline. Low dissolved oxygen levels can cause fish, amphibian, and invertebrate die-off. The other data in Appendix A is quite acceptable.

Some more recent water sampling was undertaken by Eric Wallis of Soil & Material Engineering, Inc. on 8-9-97. See Table 1 for his sampling results. The data in Table 1 reveal that the lake is probably a hardwater lake, as all the pH values exceed 7.2. If it is the calcium in the water that is maintaining the relatively high pH levels, then that is very favorable to the growth of clams, snails, crayfish, and other shell organisms in the lake which need calcium for their shells.

The dissolved oxygen (DO) levels, as measured by Eric Wallis, are very favorable to fish, including the two water samples taken below the surface. However, the DO data should have been collected vertically, particularly near the middle and bottom of the lake. Surface levels of dissolved oxygen are usually high in a lake as a result of wave action, atmospheric diffusion, and photosynthetic activity. In contrast, organic-rich bottom sediments can cause DO deficiencies, i.e., levels below 3 mg/l, due to the action of bacteria on the organic-rich bottom sediments.

With regard to other parameters in Table 1, the chloride levels are relatively low, which is an indication that chlorine from the remaining on-site septic systems along the shoreline is not excessively high. Both the water temperature and total dissolved solids (TDS) are well within acceptable limits. Nitrate/nitrite nitrogen and total suspended solids were at non-detect (ND) levels.

With regard to phosphorus levels in Lake Missaukee, a single sample presented in the 1998 Cooperative Lakes Monitoring Program, Spring Total Phosphorus Results, indicates a 8 ug/l level. Nearby Sapphire Lake had 9 ug/l total phosphorus. Total phosphorus is a most important water quality parameter, and these two data points indicate relatively low nutrient levels in these two lakes. Also, nitrate/nitrite nitrogen levels indicated in Table 1 suggest a low nutrient status lake for Lake Missaukee. Thus, at present Lake Missaukee appears to exhibit relatively good water quality.

### C. Fisheries in Lake Missaukee

Because Lake Missaukee is relatively shallow, has weed beds as well as sand bottoms in places, Lake Missaukee supports large populations of forage minnows as well as game fish. The minnows occur in the shallows along the shoreline, and take refuge in the beds of emergent aquatics and submersed aquatic plants. These weed beds, which are also known as lacustrine wetlands, are critical to the ecology of fish, particularly in regard to nursery areas for juveniles, spawning areas for some species (e.g., Yellow Perch), and feeding areas for predator fish such as Northern Pike, Walleye and Largemouth Bass.

TABLE 1  
Water Sampling, Lake Missaukee, 8-9-97  
At Water Depths of One Foot, Units in mg/l except for pH

Parameter	<u>CEM-1</u>	<u>CEM-2</u>	<u>CEM-3</u>	<u>CEM-4</u>	<u>CEM-5</u>	<u>CEM-6</u>
Dissolved Oxygen (DO)	8.4	8.4	8.3	8.3	8.0	8.2
Water Temp. C.	21.7	21.9	21.9	22.2	22.1	22.2
pH (Acidity-Alk.)	-	7.3	8.1	7.8	8.2	8.2
Chloride	6.2	7.5	5.9	5.6	6.8	6.3
Nitrate/Nitrite N.	ND	ND	ND	ND	ND	ND
T. Dissolved Solids	110	120	130	130	150	180
T. Suspended Solids	ND	ND	ND	ND	ND	ND

-In sample CEM-5, at 18 feet deep the DO was 7.8 mg/l.

-In sample CEM-6, at 15 feet deep the DO was 6.1 mg/l.

Source: Eric Wallis, Soil & Material Engineering, Inc.

As indicated in Figure 4, a diversity of sport fish are taken from Lake Missaukee. Among the more abundant game fish are Walleye, Largemouth Bass, Bluegill, and Northern Pike. Other important fish species in this warmwater fishery include Smallmouth Bass, Yellow Perch, and Black Crappie. Though much of the fishing occurs during the summer months, some ice fishing also occurs in winter.

Walleye are stocked biannually in Lake Missaukee by the Fisheries Division of the Michigan DNR. A fish survey in 1994 by the Cadillac District Office of the Fisheries Division, MDNR, revealed that Walleye exhibited faster growth rates and attain larger sizes in Lake Missaukee as compared to other lakes in Michigan (Appendix C). In addition, a Summer 1987 survey by the Institute of Fisheries Research, University of Michigan, revealed the presence of Walleyes 16 to 25 inches in length, Northern Pike up to 35 inches, and Smallmouth & Largemouth Bass as long as 15 inches. Hence, Lake Missaukee is regarded as a very productive and high quality sport fishing lake, especially for Walleye & Northern Pike.

#### D. Soils about Lake Missaukee

In terms of glacial landforms, the land immediately south of Lake Missaukee, i.e., the "high bluffs" area, consists of end moraines, whereas much of the land to the north, west and east of Lake Missaukee consists of glacial outwash. Therefore, the soils south of the lake tend to be comprised of loamy or till soils, whereas the outwash soils to the north are a mix of sand and gravel. Wetlands, with characteristic muck and peat soils, are interspersed



among the sandy hills and ridges located to the west and north of Lake Missaukee.

Figure 5 is a map of the soils about Lake Missaukee as abstracted from Sheet # 4 of the Soil Survey of Missaukee County. Predominant soil types south of the lake are: Montcalm-Graycalm Complex (# 11), Nester Sandy Loam (# 12), and Dighton Sandy Loam (# 36). In contrast, the soil types to the west and north are typified by the following: Lupton Muck (# 7), Rubicon Sand (# 13), Carbondale Muck (# 17), Tawas Mucky Peak (# 20), and Graycalm-Rubicon Sands (# 42). Also, note the considerable extent of Soil Type # 66 (Udipsaments), which are sand fill areas. Many of the wetlands about Redman Island area were artificially filled with sand during the mid-1960s in order to promote development therein.

The soils about Lake Missaukee generally consist of soil types which are conducive to on-site septic systems as well as private water wells. However, extensive wetland areas occur to the west and north as evidenced by the distribution of the muck and peat soil types. See Figure 5. Muck and peat soils are organic soil types, and all organic soils are classified as wetland soils. The presence of fill areas near Redman Island indicate the extent of previous filling of wetlands which has occurred along the north shore of Lake Missaukee.

#### E. Boating in Lake Missaukee

A major recreational use of Lake Missaukee during the summer months, particularly on weekends, is boating. The boating activity includes use of pontoons by older individuals, but more recently larger power boats are becoming more common, including for those users who wish to water ski (Plate 2). Lake Missaukee is truly an ideal location for a cottage or home on the lake (Plate 3) where one can boat, swim, water ski, or use a wave runner.

In recent years there has been some concern of the lakeshore residents that boating activity on weekends during the months of June, July and August has become very intensive at times, and that use conflicts are occurring between speed boaters and those who wish to fish or use a pontoon. In response to complaints, the Sheriff of Missaukee County has provided daily patrol services during the summer months.

In addition, during the tour of the lake on 9-6-98, the undersigned observed boaters and water skiers boating on the west side of Lake Missaukee in areas where emergent marsh and shallow, unconsolidated bottom sediments were present. Also, some boaters were insensitive to sport fishermen, and a few water skiers were skiing relatively close to other boaters, piers, and fishermen. Thus, there appears to be a need for boating education in regard to function and value

of the wetlands within Lake Missaukee, as well as the possible cordoning off of selected aquatic weed beds (fish spawning areas) in summer, and perhaps establish a "run" or two for water skiers.

#### F. Recent Extension of Sanitary Sewer Lines

During the 1969 - 1971 time period, when water levels in Lake Missaukee were high, some of the private, on-site septic facilities of lakeshore homes failed. That was a major reason why the lake level was lowered in 1974 to 1,238.5 feet. The lowering of the lake level 3 feet or so also further facilitated development of the marshy Redman Island area during the mid 1960s.

About 10 to 12 years ago, construction of sanitary sewers in the Lake City area northeast of Lake Missaukee was begun. Then approximately 10 years ago the sanitary sewer (i.e., Sanitary Drain # 1) was extended along the north side of the lake, including into the Redman Island and Crow's Nest areas. Two years ago the sanitary sewer (Sanitary Drain # 2) was extended into the "High Bluffs" area south of the lake, including near Sapphire and Crooked Lakes.

Given the 9 year flushing rate of Lake Missaukee, as well as the increasing residential development along the shorelines, along with growing rates of septic discharges per household, the extension of the two public sanitary sewer lines about the northern and southern edges of the lake was most important. The tapping into these public sanitary sewer lines by the existing lakeshore residents will result in a major improvement in the water quality of Lake Missaukee. By removing a major source of nutrient loading, particularly nitrate nitrogen and soluble phosphorus, the growth of scum algae and invasive submersed aquatic plants, such as Eurasian Watermilfoil, can significantly be prevented. Conversely, the presence of public sewer lines can increase the residential density and the development of lakeshore properties which will not perk.

#### G. Need for Wetland Mapping and Protection

As Figure 5 (Soils Map) indicates, extensive areas of wetlands occur on the west and northwest sides of Lake Missaukee. See Plates 4 and 5, which were taken on 9-6-98. Also, wetlands occur in the shallow portions of the lake, including at the point of land extending out into the lake on the west side of Lake Missaukee (Plate 6), as well as throughout the lake where weed beds occur on the sand bars.

##### 1. Wetland Regulation

Wetlands which are adjacent to lakes and streams are considered to be "contiguous" to such water bodies, and hence clearly regulated by the Michigan Department of Environmental Quality (MDEQ) pursuant

to Part 303 - Wetland Protection, Natural Resources & Environmental Protection Act, i.e., P.A. 451 of 1994 as amended. In addition, lacustrine wetlands -- those which occur in lakes, are also MDEQ-regulated. MDEQ regulation of wetlands in lakes extends to a water depth of 6 feet, or to the limit of extent of emergent marshes or of the submersed (underwater) weed beds.

No maps of wetland vegetation currently exist for Lake Missaukee, and Lake Township has not promulgated a local wetland ordinance. Based on a cursory interpretation of 1978-79 color infrared aerial photography obtained from the Michigan DNR, Real Estate Division, it appears as though considerable wetland loss has occurred in and about Lake Missaukee as the lakeshore was development. Thus, wetland protection in Lake Township should be strengthened, given the high quality of Lake Missaukee and the widespread filling of wetlands during the 1960s at Redman Island.

## 2. Description of Wetlands

As indicated in Plate 4, a strip of forested, shrub, emergent marsh and floating-leaved wetlands occurs along the west margin of Lake Missaukee. Among the wetland plant species occurring in the forested and shrub wetlands are: Red Maple, Tag Alder, Sensitive Fern, Royal Fern, Tussock Sedge, Boneset, Jewelweed, Baltic Rush, Reed Canary Grass, and Bluejoint Grass. In the emergent marsh and floating-leaved marsh zones, which occur in the lake out to 100 to 300 feet from the shoreline (see Plates 5 & 6), I observed Smartweed, Softstem Bulrush, Three Square, Hardstem Bulrush, Cattail, White Water Lily, Pickerel Weed, Muskgrass (*Chara* sp.), and Claspig Pondweed.

## 3. Wetland Disturbance/Filling

During the field investigation of 9-6-98, a group of High Bluff homeowners as well as the undersigned observed some previous wetland disturbance in the proposed Indian Lakes Land Development on the west side of Lake Missaukee. We viewed the wetland fill from the water, using a pontoon boat for access to the nearshore areas. No on land investigation of possible wetland filling at Indian Lakes Land Development took place on 9-6-98 because signs on the dirt roads in those two developments indicate that it is "patrolled" even though these roads are to be public roads.

In the southern part of the Indian Lakes Land Development, we observed wetland disturbance and grading in the forested and shrub portion of the wetlands. See Plates 7 & 8. Apparently, equipment access to the wetland disturbance area was from the relatively new dirt road which was constructed in the southwest margin of Lake Missaukee in 1997. A dirt trail leads to the wetlands from an area southeast of the cul de sac. From the water, we could see bulldozing activity and upturned wetland vegetation. See Plate 8.

When the northern area of the Indian Lakes Land Development was also checked from the lake side, we saw additional wetland



disturbance. See Plate 9. This probable wetland fill seems to be situated within the forested and shrub zones of the lakeshore wetlands. Based on corner stakes for the subject lots, it appears as though the developer wishes to extend the individual lots down from the road toward the lake, and may be maximizing use of the lakeshore lots by some unpermitted wetland fill.

Moreover, since the Missaukee Lakes Association has no knowledge of a wetlands permit granted for this wetland fill and grading activity on the Indian Lakes Land Development property, it is assumed that no wetland permit has been issued to date by the Michigan DEQ. Mr. Steve Spencer, District Supervisor, Land & Water Management, Cadillac District Office, Ph. 616/775-6360, is the MDEQ staff person responsible for any wetland, floodplain, or inland lakes & streams permit for this proposed project.

On 2-1-99 Mr. Jeff Silagy of the Michigan DEQ's Mio Office indicated to the undersigned in a phone conversation that he had been on the Indian Lakes Land Development site about a year ago, but had not seen any wetland violations. He also stated that he did not recall seeing any wetland delineation markers on the property along the wetland boundaries. In addition, Jeff Silagy told the undersigned that he was not asked by the developer to verify the wetland boundaries, and in a conversation with a representative of the developer he was told that the wetlands would be avoided.

#### H. Proposed Indian Lakes Land Development

Since 1997 the Missaukee Lakes Association has been aware of the purchase and proposed development of 7,200 acres of property along the west margin of Lake Missaukee. This property occurs in two segments, and is referred to as the Indians Lakes West and North. See Figure 6 (Small scale Site Plan). These properties occur in Sections 2 and 3 of Lake Township, Missaukee County, MI. Many residents of Lake Missaukee recall the impacts of the Redman Island development, and are thus very concerned about this proposed 80-lot lakeshore project.

##### 1. Wetland Mapping

Although Figure 6 indicated wetlands areas by wetland symbols, particularly in the northern part of the two-part development, this drawing is at a very small scale of 1" = 500 ft and does not accurately indicate all of the wetlands. The wetland boundaries do not appear to be accurate along the shorelines where emergent marsh, floating leaved wetlands, and submersed aquatic (weed beds) occur. In addition, the landward wetland edge, particularly in the 14 lakeside lots of Indian Lakes West, does not appear accurate based on the undersigned's field visit of 9-6-98. Therefore, J & L Consulting has added some additional wetlands as indicated on Figure 6.

During the field check of 9-6-98, the undersigned did not see any ribbons or surveyor's flags marking the wetland boundaries. Moreover, most of the corner stakes of the rear of the 14 lots of Indian Lakes West were clearly situated in wetland areas. Thus, it appears that the developer, i.e., Indian Lakes Land Development L.L.C., intends to include MDEQ-regulated wetlands within the platted lots.

To be accurate, the wetland boundaries should be flagged in the field, and then surveyed. Next, these wetland boundaries should be plotted on a large-scale topographical map, e.g., on a drawing of 1" = 200 ft or larger. Finally, the Michigan DEQ should verify the flagged wetland boundaries so that both the developer and the local township have accurate drawings showing precise wetland boundaries.

In spite of what the developer apparently has communicated to Mr. Jeff Silagy of the Michigan DEQ about a year ago, a wetland permit for this project is clearly needed. Examination of the preliminary site plan (Figure 6) for Indian Lakes North reveals that the proposed roadway, which may be in place already, crosses MDEQ-regulated wetlands, and some of the proposed lots appear to be only marginally buildable. Also, the 5,330 foot sewer crossing between Indian Lakes West and Indian Lakes North clearly involves extensive wetland crossings. Lastly, the 14 lakeshore lots of Indian Lakes West, as well as house construction of Lots 28 thru 42 of Indian Lakes North, may result in the encroachment into the high-quality lakeshore wetlands.

## 2. Soft, Unconsolidated Bottom Sediments along Shoreline

During the field visit of 9-6-98, the group inspected the shoreline of the two segments of the Indian Lakes Land Development by means of a pontoon boat. As Plates 10 and 11 reveal, the shoreline of Indian Lakes West is very shallow and contains very soft, oozy unconsolidated bottom sediments. Soft bottom sediments, along with wetland vegetation, extend out in places 300 feet or more from the shoreline. See Figure 3 (Cross Section). Soft, clayey bottom sediments and very shallow water also occur along the shorelines of Indian Lakes North as documented by Plates 5 & 9. If 2 to 3 feet of soft, ooze-like sediments occur on the bottom of western Lake Missaukee, then a volume of approximately 10 million cubic yards of organic-rich sediments is present.

Hence, if each riparian lot owner insists on his/her own boat pier, then these piers will have to extend out into the lake for 200 feet or more. Because of potential ice damages, these piers may have to be of the removable design. Given the wetlands along the shorelines and soft bottom sediments, it is anticipated that trampling and other adverse wetland impacts will occur during the seasonal installation and removal of these piers. Construction of artificial beaches and boating in shallows about Lots 1 thru 14 (of Indian Lakes West) and about Lots 28 thru 42 (of Indian Lakes

North) will further destroy wetland environments which provide fish spawning & nursery habitat and wildlife habitat.

### 3. Check for Listed Species

In large area developments, such as the 7,200 acre Indian Lakes Land Development, it is important that the Michigan DNR be contacted to review the available literature and thereby provide a letter concerning "listed species" which may occur in the subject development area. Listed species are those plant and animal species which the Michigan DNR regards as threatened or endangered, rare, or of special concern. The contact at the Wildlife Division of the Michigan DNR is Ms. Lori Sargent, endangered Species specialist, Ph. 517/373-9418.

If a proposed development involves the State of Michigan's subdivision control act, change in a state easement, or requires a state wetlands or floodplain permit, the developer is obliged to contact the Michigan Natural Features Program and request a search for listed plants in sections of the proposed project. There is no cost for this service, and the response may take 1 to 3 weeks. Some developers of residential projects attempt to avoid this requirement by proposing site condominiums in lieu of traditional subdivisions with platted lots.

Given the abundance of various shells along the Lake Missaukee shorelines, mussel (e.g., clams) and snails appear to be very numerous and diverse. Professor John Burch, zoologist and snail expert, has been contacted with regard to possible collections of shell organisms from Lake Missaukee. With regard to birds, there is concern for the possible presence of Great Blue Heron Rookeries, Bald Eagles, Yellow-Headed Blackbirds, and nesting Redhead Ducks for example. Also, given the presence of extensive wetlands and undeveloped former State of Michigan properties, there is a high potential for rare plants such as orchids.

As a minimum, the developer should be required to obtain the list for Missaukee County, and to perform an on-site search during the proper seasons for any listed plant or animal species. See Appendix D for a copy of the listed plant and animal species for Missaukee County. Appendix E indicates the listed species which may be in the western Lake Missaukee of Lake County. The 5,330 foot-stretch of the proposed sewer line connection between the two segments of the Indian Lakes Land Development should be given priority. See Figure 6. Unfortunately, the roads leading to the two parts of the Indian Lakes Land Development have already been constructed without the benefit of such a listed species survey.

### Summary and Recommendations

1. Lake Missaukee is an environmentally-sensitive lake due to its shallowness, slow flushing rate, and presence of a high quality

sport fishery, including exceptional-sized Walleyes and Northern Pike. It takes 9 years to flush the lake via the outlet structure on the east side.

2. Though the current water quality of Lake Missaukee appears to be acceptable, based on the limited quantity of available water sampling data, additional water sampling should be performed each summer by a professional limnologist. Important parameters include dissolved oxygen (DO), water temperature, nitrate nitrogen, total (or soluble) phosphorus, and water transparency (Secchi disk depth). Four or five vertical profiles of DO and water temperature should be prepared for selected geographical areas in the lake, including the 27-foot deep area on the east side of the lake. A winter sampling for DO, hydrogen sulfide, and ammonia may also be important.

3. The recent extension of public sanitary sewer lines along the northern, southern and southwestern margins of Lake Missaukee will significantly help protect the water quality of this slow-flushing freshwater lake, particularly in regard to nitrogen and phosphorus loadings from the remaining on-site septic systems. However, these sewer lines can also promote additional development by reducing required lot sizes and providing for the use of properties which do not perk or usages which require public sewer.

4. Previous large-scale developments along the shoreline, such as Redman Island during the mid-1960s, created widespread clouds of turbidity in the lake resulting from wetland filling, erosion from residential lots, and dredging along the shorelines. The suspended sediments from such impacting developments can smother submersed aquatic vegetation, cover fish spawning areas, and create temporary dissolved oxygen (DO) deficiencies. DO deficiencies, if severe, can lead to fish kills. Therefore, the current lakeshore residents are concerned that the proposed Indian Lakes Land Development may create similar adverse impacts on the wetlands, fish populations, and lake water quality.

5. As the proposed 80-lot site condominium development progresses, i.e., the two segments of Indian Lakes Land Development L.L.C., both the Missaukee Lakes Association and Lake Township should be concerned about several matters. First, the wetlands on the land as well as in the nearshore zone must be mapped, surveyed, and verified by the Michigan DEQ. This is especially important since there is some evidence of previous wetland disturbance, grading, and debrushing which occurred in May 1997 or thereabouts. See Plates 7, 8 & 9. Also, the roads and lots of Indian Lakes North appear to be potentially very wetland impacting. See Figure 6. However, the roads in both project areas may have already been constructed.



6. Secondly, both the Missaukee Lakes Association and Planning Commission of Lake Township should be very concerned as to how the two segments of the Indian Lakes Land Development will access Lake Missaukee in regard to boating, swimming, and fishing. Because riparian lot owners have lake access rights, there is concern that each lot owner may wish to have direct lake access, including a boardwalk across the wetlands and a pier to launch and tie up a boat or two. However, most shoreline areas of western Lake Missaukee will not support nearshore boating and beach activities due to shallow water, unconsolidated bottom sediments, and presence of sensitive wetland plant communities which provide fish spawning and nursery functions. See Plates 10 & 11.

7. Thirdly, these two entities should also be concerned about the likely presence of "listed plant and animal species", including threatened and endangered species, in the area of the proposed development. See Appendices D and E. Much of this 7,200-acre property has not been previously developed or recently logged. Thus, there is a very high potential for the presence of listed species in the area, including in the 5,330-foot sewer crossing corridor. Thus, the developer should be required to contact the Michigan Natural Features Inventory Program and request a search of listed species which are likely to occur in the Indian Lakes Land Development area and to perform an on-site survey as well.

8. The Missaukee Lakes Association should be cautioned that the Michigan DEQ has not been very responsive to complaints of wetland violations. Inside information from MDEQ personnel suggests that staff in the district offices, including the Cadillac and Mio District Offices, are being directed by MDEQ supervisors in Lansing that the focus must be on addressing permit applications, and not wetland violations, unless such wetland violations are large, very serious, and the violations clear cut. Therefore, if the Missaukee Lakes Association wishes to pursue the apparent wetland violations in the Indian Lakes Land Development (see Plates 7, 8 & 9), then an environmental lawyer may have to be contacted.

9. Conversely, the Michigan DEQ may be receptive to approving piers, docks and marinas along lake shores, even where wetlands and shallow waters occur, because of legal concerns over riparian property rights. Therefore, in order to reduce the number of removable piers and creation of artificial beaches (on fabric), the Missaukee lakes Association or local citizenry will have to document the presence of wetlands along the lakeshore and specify the adverse impacts that such nearshore activities will create. It would be preferable for Planning Commission of Lake Township to require a single, common pier/access area to the lake for each of the two development segments as part of site plan and engineering plan review of the Indian Lakes Land Development.

10. With regard to a long-term perspective, the Missaukee Lakes Association may wish to strength its voice by adding new members and perhaps by providing educational services. Also, your group may wish to concern itself with the membership of Lake Township's planning commission and township board. Increasingly the residents along Lake Missaukee will be forced to rely on their local governmental bodies and officials, including the township supervisor and local ordinances, instead of the Michigan DEQ, when issues of serious environmental impact arise.

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Tonello, Mark. Personnel Communication, 2-1-99. Fisheries Biologist, Fisheries Division, Michigan DNR. Cadillac District Office, Cadillac, MI. Ph. 616/775-9727, Ext. 6071.

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E. Jaworski  
Eugene Jaworski, PhD  
Principal  
J & L Consulting Services

3-8-99  
(Date)

Enclosures: Figure 1 - Location of Lake Missaukee in Lake Twp  
Figure 2 - Map of Lake Missaukee showing Water Depths with 5-Foot Contours  
Figure 3 - East-West Cross Section of Lake Missaukee  
Figure 4 - Map of Sport Fishing Areas in Lake Missaukee, from Huggler 1993.  
Figure 5 - Soils Map of Lake Missaukee, from Soil Survey of Missaukee County, MI  
Figure 6 - General Site Plan of Indian Lakes Land Development, Scale 1" = 500 ft

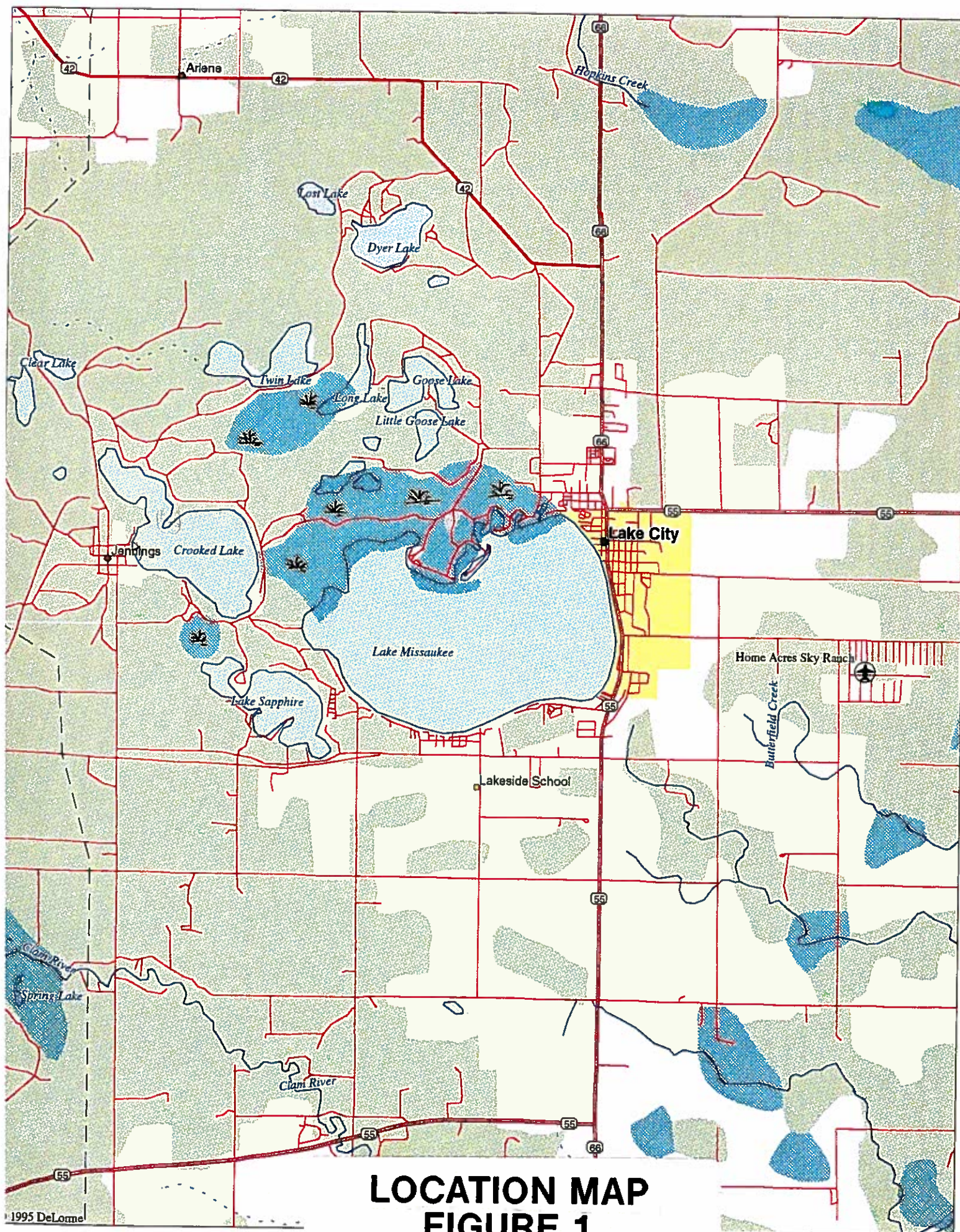
Plates 1 thru 11: Color Photographs, taken 9-6-98

Table 1 - Results of Water Sampling of Lake Missaukee, Michigan, on 8-9-97

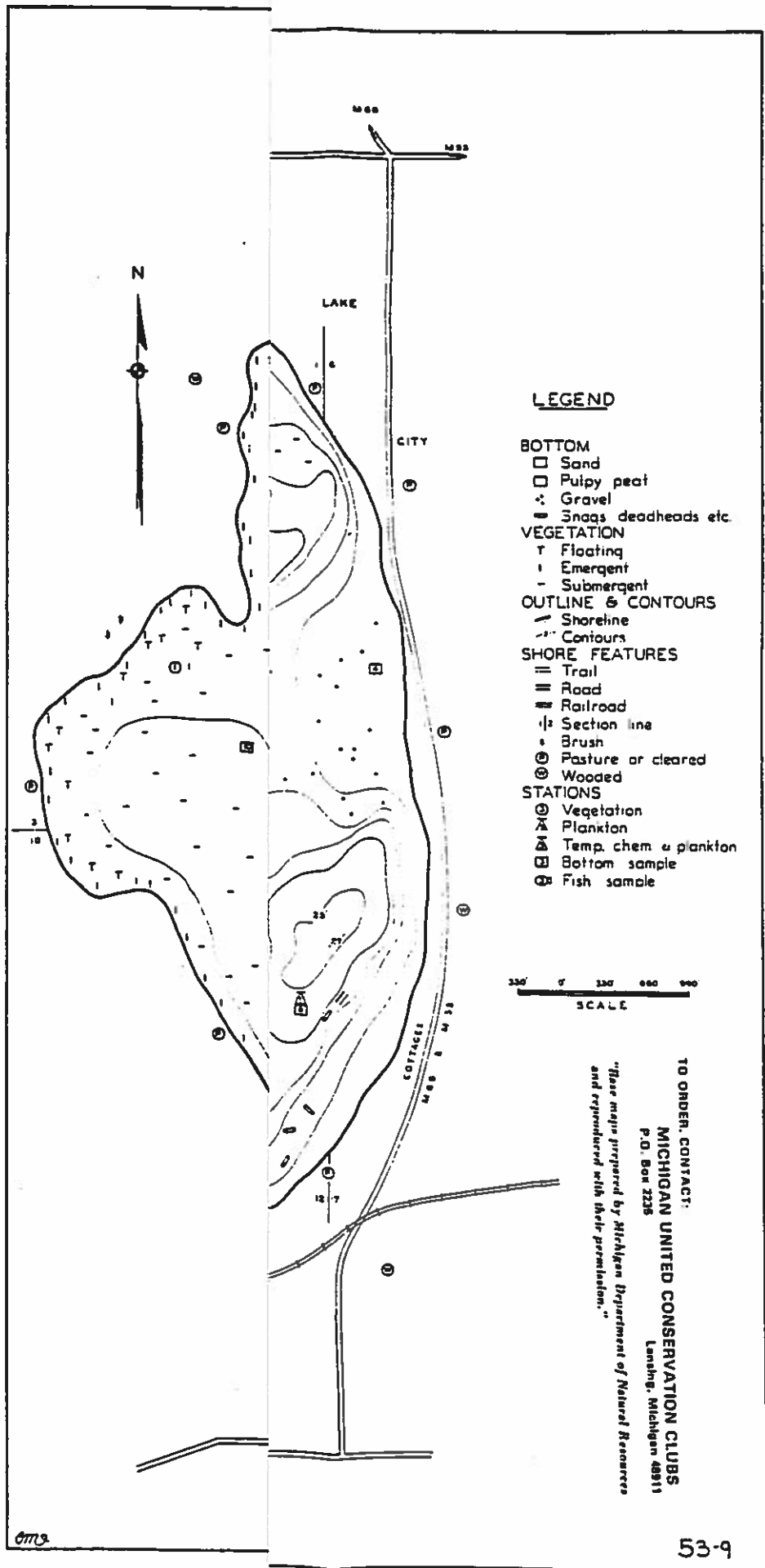
Appendix A - Data on Lake Missaukee provided by Dr. Wallace Fusilier, dated 1-21-99

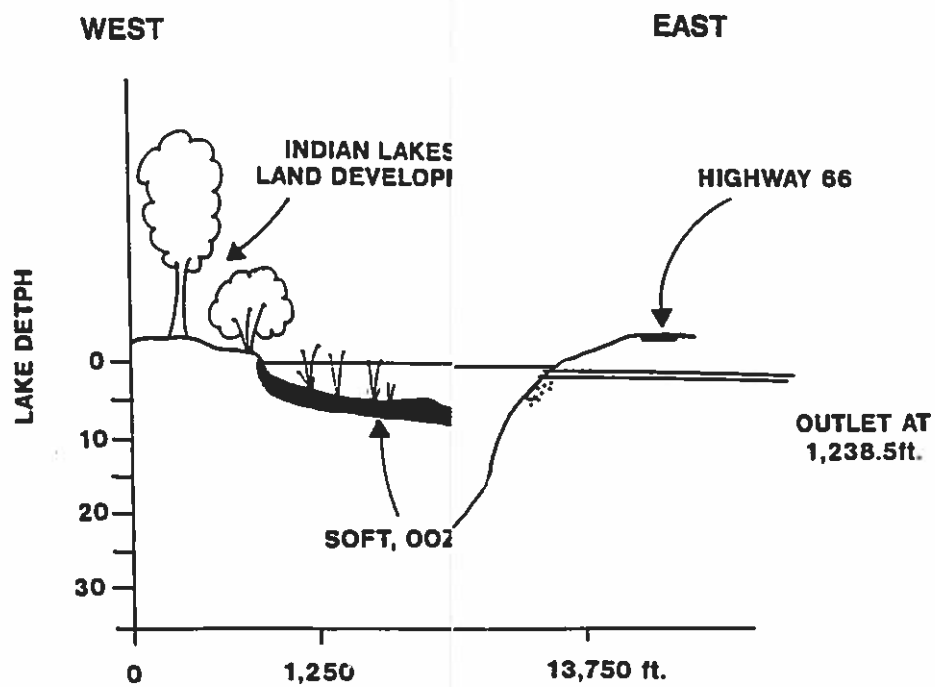
- Appendix B - Water Quality Data at one Station in Lake Missaukee, 1970-1987, from US EPA's Storet Data Base
- Appendix C - Fish Shocking 1993 and 1994, Lake Missaukee, and 1999 Walleye Stocking of Lake Missaukee, Fax from Mark Tonello, MDNR, Fisheries Division, Cadillac, MI.
- Appendix D - Listed Species for Missaukee County, MI. Natural Features Inventory, Ms. Lori Sargent, MDNR, Wildlife Div., Lansing, MI
- Appendix E - Listed Species for Western Lake Missaukee, Lake Township, Natural Features Inventory, MDNR, Lansing, MI











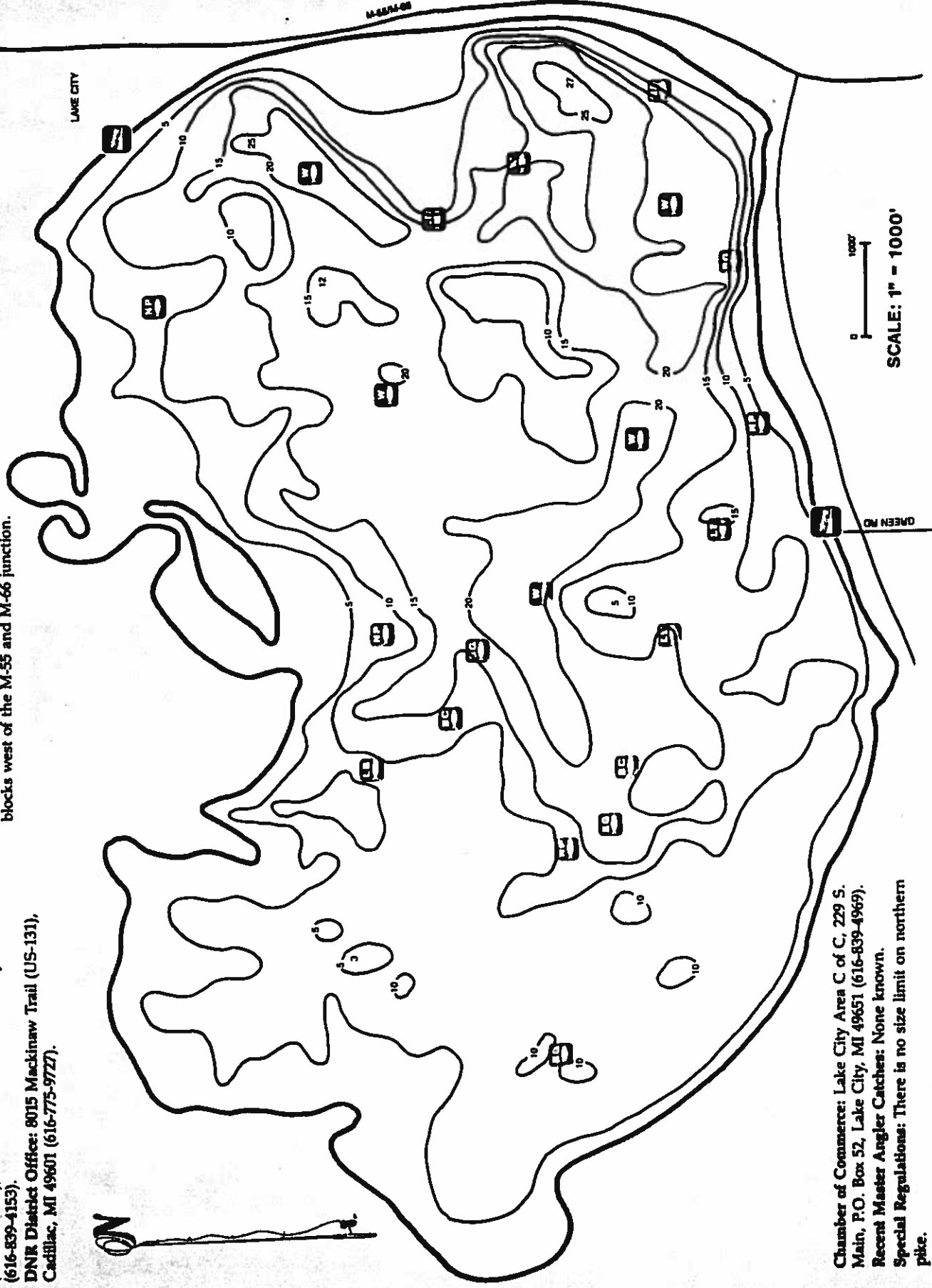
# MISSAUKEE LAKE

Size: 1,985 acres.

Bait & Tackle: Lake City Sport Shop, in Lake City (616-839-4875), and End Service, in Lake City (616-839-4153).

DNR District Office: 8015 Mackinaw Trail (US-131), Cadillac, MI 49601 (616-775-9727).

Campgrounds: Goose Lake and Long Lake state forest campgrounds are both located about 3 miles northwest of Lake City. In Lake City is Missaukee Lake Park, 2 blocks west of the M-55 and M-66 junction.



Chamber of Commerce: Lake City Area C of C, 229 S. Main, P.O. Box 52, Lake City, MI 49651 (616-839-4969).  
Recent Master Angler Catches: None known.  
Special Regulations: There is no size limit on northern pike.

# IMPORTANT NOTICE !!!

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## Indian Lakes Development West End of Lake Missaukee

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### What's happening . . .

- ◆ Indian Lakes West (next to Birch Haven) and Indian Lakes North (next to Crow's Nest) will total 80 new building lots (single family homes in condo association).
- ◆ Approval has been granted to connect sewer service to these lots into Sanitary Drain No. 2 (including running a sewer line along the entire west end of Lake Missaukee).
- ◆ Not only will these new developments destroy much of the current wildlife habitat at the west end of the lake, it is obvious that potential buyers will expect to be able to swim and boat at their lake front property. Those of you who are familiar with the area in question know that this is not possible without dredging and altering the lake bottom.

If you think such dredging is not allowed today, think again ...

A connected area of a lake such as this is not considered a wetland, and all that is needed for such dredging is a permit from the Department of Environmental Quality office in Cadillac (not in DNR jurisdiction). Permits have not yet been requested.

### What you can do . . .

- ◆ Contact Dept. of Environmental Quality to express your concern about the potential dredging of the lake bottom and its potential affect on water quality. Contact at the office in Cadillac is: Steve Spencer, (616)775-3960, ext. 6360. Also, express your concern that adequate care is taken to protect existing wetlands in this area.
- ◆ Arrangements have been made to have a qualified environmental engineer test current water quality in the lake to establish a benchmark against which to measure any future damage to lake water quality caused by dredging.
- ◆ We would also appreciate the advice and assistance of an attorney familiar with environmental law in Michigan and/or Lake Association formation protocol.

IF YOU APPRECIATE THE QUALITY OF LAKE MISSAUKEE, PLEASE JOIN IN MAKING CERTAIN  
THAT THIS QUALITY IS MAINTAINED. FOR MORE INFORMATION, CONTACT:

Dick Morrow  
Home: (517)793-1716  
Cottage: (616)839-3219

OR

Bill Ardis  
Home: (616)676-5528  
Cottage: (616)839-2551

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There will be an informational meeting on Saturday, 8/9/97, at 7:00pm in the Lake Township Hall on Kelly Road to discuss this development issue and to investigate renewing the Missaukee Park Lake Association.

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**Minutes of the 08/09/97 Missaukee Lakes  
Association, Inc. Originating Meeting**

Richard Morrow and William Ardis welcomed approximately 60 concerned property owners to the 7:00 P.M. meeting at the Lake Township Hall on Kelly Road. After introductions by everyone in attendance, they proceeded with their "purpose statement", stating that they were not against any development activity on the lake (reference Indian Lakes Development and/or others), but they wanted timely communications on issues pertinent to property owners and to maintain the existing environmental "quality of life" for everyone using the lake.

Mr. Morrow cited numerous examples of events surrounding the Indian Lakes Development activity, lake water quality levels and local newspaper articles that served as evidence to the poor existing communications to most property owners on issues of vital importance to them; specifically, issues potentially impacting the ecology of the lake, the water quality, and long term tax considerations.

Mr. Morrow then reviewed a 07/31/97 responsorial letter written by Mr. Charles Parsons, the attorney for the Lake Township board, addressing a seven point 07/24/97 letter he sent to board member Mr. Thomas Duddles, concerning ineffective communications and Sanitary Sewer #2 impact with respect to the Indian Lakes Development. A copy of the letters are attached.

Mr. Ardis and Mr. Morrow then gave an overview on the D.E.Q.'s role in water management, and whom to contact at the Cadillac office to express their concerns over potential damage to the lake if dredging and/or filling were to occur.

Mr. Morrow gave an update on water testing activities that were initiated that day, on Lake Missaukee, to establish an existing water quality level for future reference.

The entire audience then participated in summarizing the potential ecological damage that the Indian Lakes Development would have on the wildlife, water quality, lake level, shoreline and lake bottom if full development and/or dredging were to occur.

Next, Mr. Morrow introduced Indian Lakes Development representative Mr. Charles Green, who gave the audience an overview of the planned development, at the west end of Lake Missaukee. He revealed the plat for the west side of the lake and answered questions by concerned property owners over the impact it would have on the lake.

Mr. Ardis and Mr. Morrow then discussed other issues impacting property owners on the lake; including the Green Road boat launch and Dutchman Mobile Estates' planned construction and its impact on Sanitary Sewer #2.

Mr. Morrow then expressed the need to form a lake association given all of the above conditions. Mr. James Krone made a recommendation from the floor to form a lake association steering committee, nominating Mr. Morrow as chairman, which was seconded and given unanimous approval. Subsequently, Mr. William Ardis, Mr. James Krone, Mr. George Norbert and Mr. Richard Levandowski accepted membership.

The last order of business was an invitation by Mr. Morrow for concerned property owners to express their concerns at the upcoming 08/13/97 Lake Township board meeting, where representatives from Indian Lakes Development would be seeking tentative plat approval.

The meeting adjourned at 9:00 P.M..

Respectively submitted,

William Ardis  
08/30/97

cc:file

Date: August 11, 1997

To: Editor, The Missaukee Sentinel  
130 N. Main Street  
Drawer O  
Lake City, Mich. 49651

From: Richard A. Morrow  
3716 Dale Road  
Saginaw, Mich. 48603

Subject: Expression Of Gratitude

On behalf of Bill Ardis and myself, we would like to express our sincere "thank you" to all the property owners who endured less than comfortable conditions at our 08/09/97 "Informational Meeting On Issues Pertinent To Property Owners: Lake Missaukee" at the Township Hall. Your support and enthusiasm for forming a South Shore Lake Association will have a profound, positive impact on both, future lake activities, as well as timely communications. Also a special "thank you" to Mr. Charles Green, the representative for Indian Lakes Development who presented information on the proposed development at the west end of Lake Missaukee.

Last, but not least, our sincere apologies to those of you who found the hall filled to capacity and had to stand outside and listen through the open windows. Your dedication to hearing and understanding the issues confronting all of us gave a strong testimonial to not only the subject matter and the need for timely information, but also to your personal integrity. You can play on our team anytime! Again, we apologize for any and all inconveniences. See you at the South Shore Lake Association formation meeting on Saturday, August 30, 1997 at 7:00P.M. at the Lake Township hall on Kelly Road.

*Richard A. Morrow*  
*William Ardis*  
*(RAM)*

Dick Morrow & Bill Ardis

cc:file



Date: 08/13/97

To: Lake Township Board Members: 08/13/97 Board Meeting

From: Richard A. Morrow  
3716 Dale Road  
Saginaw, Mich. 48603

Subject: Indian Lakes Development On The West End Of Lake Missaukee

I am not a lawyer, but as a lake front property owner on Lake Missaukee, I want the board to understand that many of the existing property owners and I are very concerned about the board granting plat approval to Indian Lakes Development, based on the following information gathered from our Informational Meeting held on Saturday, 08/09/97, at the township hall and from conversations with other property owners over the last several weeks:

1. Lake Water Environmental Impact

- a. The west end of the lake is a bog or marsh; as such, how will these future property owners and their guests swim, boat, install docks and enjoy the basic essentials of water activities?
- b. We believe that for (a) to take place, dredging of the lake must occur. If dredging is permitted, with the prevailing west/northwest winds, the waterborne residual will pollute our beaches and swimming areas. We object to this potential.
- c. If dredging activity is not initiated by the developer, then surely it will be demanded by the buyers. Assuming the Department Of Environmental Quality will not issue dredging permits, how will perspective buyers be informed, prior to purchase, of these conditions? What are the board's responsibilities on this issue? Will the deeds to these properties be so noted prior to sale?
- d. If no dredging takes place by either the developer nor the buyers, any and all increases to the existing lake activity in this area will result in stirring up the sediment on the bottom of the lake, causing it to become waterborne and polluting the quality of the lake water and shoreline for the rest of us. What redress will be extended to us?
- e. If dredging is permitted, what impact will it have on the existing water level of the lake? Other lakes have suffered severe damage as a result of this activity. Where will the "make up" water come from?

2. Sanitary Drain #2 Impact

- a. Does Missaukee County have a sewer impact fee ordinance? As such, how much money has been allocated to the sewer fund for this development activity? Is it secured? If not, who pays for all sewer construction costs if Indian Lakes Development goes bankrupt?
- b. When will the engineering study be finished on determining the need for a third lagoon? What firm is performing the study? Are these monies secured?

### 3. Ecological Impact

- a. What happens to the wild life/nesting areas?
  - bald eagle?
  - loons?
  - swans?
  - bass beds?
  - wild fowl?
  - beaver lodge?
- b. What about runoff from new roads into the lake?
- c. What happens to the land & water vegetation? Wetlands clean the water. How will the water get cleaned if you remove the wetlands?
- d. What impact will work/activities at the waters edge have on the lake water quality?
- e. How will access road maintenance costs be shared between different lake associations? Will roads be built across wetlands?
- f. What type of settlings lie under the bog? Are they hazardous? Are they captured from the industrial past?

### 4. People Impact

- a. Before the board approves the request for Indian Lakes plat approval, I challenge any and/or all of the board to accompany me to this area of the lake for an in-depth inspection of the existing conditions and to join me for a swim in the very location you will be authorizing plat approval and ultimately, people approval to swim in this environment. Please raise your hands as a signal that you accept my challenge. What day/time do we meet?

THANK YOU!



Richard A. Morrow

cc:file

# **MEETING NOTICE!**

## **THE MISSAUKEE SOUTH SHORE ASSOCIATION, INC.**

**There will be an organizational meeting held at ...**

**7:00pm, Saturday, August 30<sup>th</sup>**

### **Lake Township Hall**

**(Kelly Road west of Dickerson Road)**

**for the purpose of forming the Missaukee South Shore Association,  
an association of riparian (lakefront) property owners and other property  
owners with lake access.**

This association would include all such property owners included in the areas bordered by (but not included in) Missaukee Heights on the east & Birchaven Beach on the west.

The purpose of this association will be to support issues which concern the welfare of the lake in general, including the conservation of the water supply in the lake and watershed, maintain the quality of water safe for swimming and conducive to the renewal of fish resources.

**At the August 30<sup>th</sup> meeting, we will:**

- 1. Adopt a set of by-laws.**
- 2. Elect officers.**
- 3. Set dues.**
- 4. Appoint committees**
- 5. Set date for the next meeting.**

If you are concerned about protecting the quality of Lake Missaukee, help us support our concerns as a united group, rather than as single individuals. Please plan to attend the August 30<sup>th</sup> meeting and provide your input into the formation of the Missaukee South Shore Association.

# **Missaukee Lakes Association, Inc.**

08/30/97

## **Agenda**

- |  |                |
|--|----------------|
| * Call To Order  | R. Morrow      |
| * Introduce Steering Committee   | R. Morrow      |
| * Minutes Of Originating Meeting   | W. Ardis       |
| * Adopt/Approve Articles<br>of Incorporation                                       | All            |
| * Adoption of Constitution/ Bylaws<br>& Board Empowerment to make<br>legal changes | All            |
| * Nomination/Election<br>of Officers   | All            |
| - Bonding of Treasurer   | All            |
| * New Business   |                |
| - Environmental Quality/<br>Other Concerns   | R. Morrow      |
| - Action Items   |                |
| - Adoption of Resolution   | R. Morrow      |
| - Sample Letters   | R. Levandowski |
| - Water Sampling   |                |
| - Tip of the Mitt  | J. Krone       |
| - Inland Lakes & Streams   | R. Morrow      |
| - Bonding of Treasurer   | All            |
| - Appoint Committees   | All            |
| - Establish 1997/8 Dues  | All            |
| - Other  | All            |

\* Adjourn (Semi-Annual Meeting: 05/23/98, details to follow in mailing)

# MISSAUKEE LAKES ASSOCIATION, INC.

## Minutes of First Annual Meeting

August 30, 1997

- 1) The meeting was called to order by Mr. Dick Morrow. Mr. Morrow thanked the members of the steering committee, Bill and Joan Ardis, Jim and Val Krone, Richard and Lisa Levandowski, and George and Patricia Norberg for their work on the constitution and bylaws. He also thanked Monty ~~Ossinga~~ <sup>ELZINGA</sup>, Marge Morrow and Peter Smit for their help.

- 2) Bill Ardis read the minutes of the previous meeting. A motion to accept the minutes was made, supported and passed.

- 3) Mr. Morrow introduced the proposed constitution and bylaws, and articles of incorporation, acknowledging the assistance received through Mr. Krone from Mr. ~~Kinstater~~ <sup>KINDSVATER</sup>, an expert in the field of incorporation. The articles of incorporation require filing with the State and payment of a filing fee of \$20. A motion was made, supported and passed unanimously to approve the articles of incorporation.

- 4) Mr. Morrow presented a detailed review of the proposed Constitution and Bylaws including the following highlights:

**Name of the association:** The name selected for the association is the "Missaukee Lakes Association, Inc." This name has the advantage of permitting an opportunity for future expansion of the organization without necessitating a change in the name.

**Boundary of the Association:** The association will encompass seven plats on the south side of Lake Missaukee.

**Membership of the Association:** All persons owning lakeside property or property with legal access to the lake within the prescribed boundaries are eligible for membership.

**Purposes of the Association:** The primary goals of the association will be to promote education on water quality issues and to promote and preserve the general welfare of the lake.

**Meetings:** The "annual" meeting will be held on the Saturday preceding Labor Day, and the "semi-annual" meeting will be held on the Saturday preceding Memorial Day.

A motion to approve the Constitution and Bylaws was made, supported and passed unanimously.

- 5) Mr. Krone noted that it would be a good idea to separate the Constitution and the Bylaws. That way the Constitution could be a durable document perhaps requiring a super-majority for modification. The Bylaws could be a working document that could be amended by a simple majority vote. He volunteered to take on the task and report out at the next meeting.

6) Mr. Krone reported on the recommendations of the nominating committee. Nominees of the committee were Dick Morrow for the office of President; Bill Ardis for the office of Vice President; Richard Levandowski for the office of Treasurer; and George Norberg, Roger Moore, and James Krone for the three Director positions. The committee had no nominee for the office of Secretary. Mr. Morrow solicited nominations from the floor for all positions. There were no further nominations and the above slate was elected by unanimous vote. Mr. Morrow then described the duties of the Secretary and again encouraged nominations. Dave Smith was nominated to the office of Secretary, and he too was elected.

7) Mr. Morrow suggested that the Treasurer should be bonded. A motion to that effect was made from the floor, supported and approved.

8) New Business: Mr. Morrow opened discussion on a number of topics that might be the subject of Association focus and activity. Currently, the primary concern is the proposed development of the property at the West End of Missaukee Lake.

Discussion centered around the following issues.

- **Environmental Quality** – It is obvious that the land and lakeshore at the West End of the lake is entirely unsuited to the sort of use that one normally associates with recreational lakefront property. The land is low, wet and boggy, and the lake bottom near the shore is extremely soft with the bottom consisting of several feet of muck and silt in most areas. Development of the area for normal lakefront recreational use will require major dredging and filling of such magnitude as to seriously affect water quality and impair the enjoyment of the lake for present property owners and the public in general.

- **Wetlands** – Mr. Morrow read a letter from Mr. Scott Rasmussen of the Cadillac office of the State Department of Environmental Quality (DEQ). The letter offered assurances that a “Wetlands Delineation” would be required before development could begin. There were no assurances regarding impact of development on the lake itself.

- **Information availability** – How will we know if dredging or other permit applications are filed in time to offer comments on them? How will we know if environmentally destructive activities are undertaken without a permit? How will we know when the developer applies for final plat approval?

- **Road maintenance**

- \* - **Sewer Construction** – The developer reportedly informed the Council that \$100,000 has been put “in escrow” for sewers. Engineering estimates are that sewer work will cost about \$2000 per site for the 80 site proposed development. We are concerned that the “escrow” is insufficient and insecure. A formal escrow needs to be established so that funds are protected against withdrawal by the developer, and it needs to be for at least \$160,000.

- \* - **Lakewater Testing** – We need to begin a regular program of testing of water quality for both transparency and chemical contamination. One concern regarding chemical contamination is the fact that benzene and other contaminants have been measured in the sediments at the bottom of nearby Crooked Lake. Such contaminants, if present in sediments at the bottom of Lake Missaukee, could be released into the water if the bottom is disturbed. Mr. Morrow will try to find a year-round resident to volunteer to do the water quality tests. It was noted

that the intent of the recently installed sewer system was to improve the water quality. In that light, even stable water quality measurements would reflect deterioration and loss of the anticipated benefits of the sewer system.

- A motion was made, supported and passed to purchase a **water quality test set** at a cost of \$50.
- **Wetlands Reference Guide** – Mr. Morrow read excerpts from a guide published by the DEQ. The guide emphasizes that the basis for regulation of use of wetlands is the protection of the *Public Interest*. The local contact for the DEQ is:

Mr. Scott Rasmussen  
Land and Water Management  
Department of Environmental Quality  
Cadillac District Office  
120 W. Chapin  
Cadillac, Michigan 49601-2158

It was noted, however that permit applications for wetlands development go to the DEQ in Lansing where they are acted on within 90 days. The department may or may not invite public comment on the proposed action.

- **Swimmers Itch** – Possible water treatment. How to prevent swimmers itch.
  - **Zebra Mussels** – Since lake access to boat launching is restricted to one or two sites, it may be possible to initiate a successful inspection program.
  - **General Lake Safety** – As recreational use of the lake continues to grow, safety is an increasing concern, especially with regard to commercial use of the lake by such things as jet ski rentals and even aircraft.
- 9) Mr. Morrow introduced a resolution expressing concern over the threat posed to the environmental quality of the lake by the proposed development of the West End of the lake. The resolution urges all authorities to assure protection of the environment and adherence to the Michigan Wetlands Protection Act. A motion was made and supported that the resolution be adopted. The motion was passed unanimously. Mr. Morrow urged all to sign the resolution and to circulate it for signature by others.
- 10) **Committees**- The following committees were established and chairmen named by Mr. Morrow:
- **Public Relations:** George Norberg, chairman
  - **Environmental:** Bill Ardis, Chairman (Mr. Eric Wallace<sup>is</sup> offered his assistance unofficially, since he is not eligible for association membership)
  - **Constitution and Bylaws:** Jim Krone, Chairman
  - **Nominating Committee:** Jim Krone, Chairman
- 11) **Dues** – It was moved and supported that Association Dues be set at \$100 per family unit for the remainder of 1997 and the 1998 calendar year. The motion was passed unanimously. Dues are to be paid to Association treasurer, Richard Levandowski at 33811 Hunters Point, Farmington Hills, Mich. 48331
- 12) **Next meeting** – The next regular meeting of the Missaukee Lakes Association will be held at 9 AM on May 23, 1998 at a location to be determined.
- 13) The meeting was adjourned.

Date: September 16, 1997

To: Mr. Thomas Duddles, Chairman  
Lake Township Board  
P.O. Box 238  
Lake City, Mich. 49651

Mr. Ralph L. Bednarz, M.S.  
Lake & Management Specialist  
Michigan Department Of Environmental Quality  
Stevens T. Mason Building  
P.O. Box 30458  
Lansing, Mich. 48909-7958

Mr. Russell J. Harding, Director  
Department Of Environmental Quality  
Hollister Building  
P.O. Box 30473  
Lansing, Mich. 48909-7973

Mr. Scott Rasmusson  
Land & Water Management  
Department Of Environmental Quality  
Cadillac District Office  
120 W. Chapin  
Cadillac, Mich. 49601-2158

From: Richard A. Morrow, President  
<sup>1</sup>Missaukee Lakes Association, Inc.  
33811 Hunters Pointe  
Farmington Hills, Mich. 48331

Dear Sirs:

On behalf of Missaukee Lakes Association, Inc., I am submitting to each of you a "resolution", signed and dated by many of our members, describing their resolve to protect the wetland vegetation, wildlife and water quality, as a result of the proposed development at the west end of Lake Missaukee by Indian Lakes LLC. Furthermore, our membership is seeking that you deny any plat approvals that do not address this area and clearly specify that it is subject to the Michigan Wetlands Protection Act. This is vital to protect future parcel owners, unaware of this situation, at time of purchase. For some of you, I am including a copy of a letter I sent to Mr. Bednarz and Mr. Spencer (DEQ) on August 18, 1997, describing events leading up to the necessity to submit this "resolution" and to expound on the high degree of "public interest" in protecting this wetland. I can assure you, that the degree of "public interest" will only escalate with increased communication on this subject matter.

In Mr. Spencer's letter addressed to me, dated August 27, 1997, he indicated that the developer will be required to have a wetland delineation completed and then verified by Department staff before it is accepted. He also stated that Department staff walked the development site with the developers to make sure they were aware of what permits would be necessary and where. On behalf of Missaukee Lakes Association, Inc., I am formally requesting notification by the DEQ as soon as wetland delineation has been established, its boundaries and timetable for verification and acceptance. In addition, I am requesting notification on all permit applications submitted by Indian Lakes LLC with respect to this development, as soon as they are received by the DEQ. In lieu of the high degree of "public interest" in this matter and the need for timely communications to impacted property owners beyond only those adjacent to the development, this constitutes looking out for the best interests of the general public. If the DEQ finds this request unacceptable, please notify me immediately, so alternative actions can be initiated.

Finally, after reading the literature Mr. Bednarz sent me regarding Michigan wetlands, it is very apparent that once a wetland permit is submitted to the MDEQ in Lansing, because of the high "public interest" and potential ecological impact on the lake, the MDEQ staff must issue a public notice, so a public hearing can be held. There are too many critical issues that must be addressed by the developer at this public hearing to warrant any other action.

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<sup>1</sup> Inc. pending



Last, but not least, the intent of Missaukee Lakes Association, Inc. is not to harass our public leaders and environmental officials; it is exactly the opposite, we want to work with you. Our mission is to promote lake quality, education and safety. We are not against any developers nor developments as long as they abide by environmental protocol and promote lake quality, and do not exploit private gain for public loss.

We await your response.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard A. Morrow". The signature is fluid and cursive, with the first name "Richard" and last name "Morrow" being the most legible parts.

Richard A. Morrow

cc: J. Gernatt, House of Representatives  
Missaukee Lakes Association, Inc., Board Of Directors

# RESOLUTION

08/30/97

Be it resolved: we the members of the Missaukee Lakes Association, Inc. have deep concerns regarding the proposed development by Indian Lakes Development LLC at the West end of Lake Missaukee. This land is characterized by muck, bog and marsh at the water's edge and supports wetland vegetation and aquatic life. It is critical to the natural vegetation, wildlife and water quality of the lake that this area not be disturbed by development. We ask that the Township Board, the Department of Environmental Quality (DEQ) and other approving authorities deny any plat approvals that do not address this area and clearly specify that it is subject to the Michigan Wetlands Protection Act.

<u>Name (Print)</u>	<u>Signature</u>	<u>Address</u>	<u>Date</u>
GERARD WINKLE	<i>Gerard Winkle</i>	7116 W Lake St	8/30/97
Beverly Winkle	<i>Beverly Winkle</i>	7116 W Lake St	8-31-97
Judy Vissca	<i>Judy Vissca</i>	7110 W Lake St.	8-31-97
AL VISSA	<i>Al Vissa</i>	7110 W Lake St.	8/31/97
Julie Karnenaut	<i>Julie Karnenaut</i>	8287 S. Warner	8/31/97
Tom KARNENAUT	<i>Tom Karnenaut</i>	8287 S. WARNER	8/31/97
LOIS G. DEZEEN	<i>Lois G. DeZeen</i>	7100 W. Lake City, Mich <sup>49651</sup>	8/31/97
Rick Ewing	<i>Rick Ewing</i>	7070 W LAKE LAKE CITY, MI	8-31-97
Bernard Narva	<i>Bernard Narva</i>	7055 W Lake City, Mich	8-31-97

# RESOLUTION

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<u>Name (Print)</u>	<u>Signature</u>	<u>Address</u>	<u>Date</u>
DONNA R. THOMPSON	<i>[Signature]</i>	108 S. WILKINSON	8-31-97
WILLIAM BARSTON	<i>[Signature]</i>	1798 S. WILKINSON	8-31-97
PATRICIA REYNOLDS	<i>[Signature]</i>	7210 Lake Dr.	8-31-97
DWIGHT D. WHIPPLE	<i>[Signature]</i>	"	8-31-97
SANDRA C. WHIPPLE	<i>[Signature]</i>	"	8-31-97
GLEN HASTINGS	<i>[Signature]</i>	7204 Lake Dr.	8-31-97
GLEN HASTINGS	<i>[Signature]</i>	7204 Lake Dr.	8-31-97
RONALD REYNOLDS	<i>[Signature]</i>	7314 Mission Keel Blvd	9-1-97
FRAN HASTINGS	<i>[Signature]</i>	7314 Mission Keel Blvd	9-1-97

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<u>Name (Print)</u>	<u>Signature</u>	<u>Address</u>	<u>Date</u>
DOLores NARVA	<i>Dolores Narva</i>	7055 W. LAKE ST.	8-31-97
Joyce Schad	<i>Joyce Schad</i>	7024 W. Lake St.	8-31-97
ED PRUDEN	<i>Ed Pruden</i>	7004 W. LAKE ST.	8-31-97
Ann Marie Scherlinck	<i>Ann Marie Scherlinck</i>	1781 Huron Rd.	8-31-97
Gerard Scherlinck	<i>Gerard Scherlinck</i>	1781 Huron Rd.	8-31-97
BRENDLEY J. MAGWIN	<i>Brendley J. Magwin</i>	1775 B GREEN	8-31-97
Raymond Schut	<i>R.L. Schut</i>	7074 W. Lake St.	8-31-97
Beverly Schut	<i>Beverly Schut</i>	2725 FAIRBROOK Jenison, MI 49428	8-31-97
THOMAS SCHUT	<i>Thomas Schut</i>	" "	8-31-97

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<u>Name (Print)</u>	<u>Signature</u>	<u>Address</u>	<u>Date</u>
QUENTIN ANDERSON	<i>Quentin Anderson</i>	7634 Forest Dr	8-30-97
Monty Elzinga	<i>Monty Elzinga</i>	7610 Forest Drive	8-30-97
DAVID VAN HOUT	<i>David Van Hout</i>	1013 Golden Rd	8-30-97
Peter Smith	<i>Peter Smith</i>	7405 Miss PK Blvd	8/30/97
DAVID P. SMITH	<i>D.P. Smith</i>	7406 Miss. PK Dr	8/30/97
Richard A. Morrow	<i>Richard A. Morrow</i>	7600 FOREST DR.	8/30/97
JAMES W. BURCHETT	<i>James W. Burchett</i>	7590 FOREST DR	9-1-97
JOYCE E. BURCHETT	<i>Joyce E. Burchett</i>	7590 FOREST DR	9-1-97

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<u>Name (Print)</u>	<u>Signature</u>	<u>Address</u>	<u>Date</u>
George A. Becker	<i>George A. Becker</i>	940 N. High St 49631 FRANK, MI	9-1-97
Virginia J. Becker	<i>Virginia J. Becker</i>	940 N. High St 49631 Frank, Mich	9-1-97
WILLIAM & SALLY MARKS	<i>Sally Marks</i>	2801 N. Leonard Rd 49631 Frank, Mich	9-1-97
Quinnell Becker	<i>Quinnell Becker</i>	2635 1st Ave. N.W. 49509	9-1-97
Sally Marks	<i>Sally Marks</i>	2635 1st Ave. N.W. 49509	9-1-97
George R. Grottenberger	<i>George R. Grottenberger</i>	2174 Lake 49664 Lake City	9-1-97



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Name (Print)	Signature	Address	Date
David Habermson	<i>David Habermson</i>	5200 Huntington Dr Midland, MI 48640	8/30/97
LAURIE KRAVE	<i>Laurie Krave</i>	1923 BIRCHWOOD, DENVER, CO 80201	8/30/97
Cindy Moore	<i>Cindy Moore</i>	7601 Forest Dr., Lake City 49651	8/30/97
Margaret Morrow	<i>Margaret Morrow</i>	7600 Forest Dr., Lake City 49651 8/30/97 3065 Bannockburn SE Ada, MI 49301	
Joan Ardis	<i>Joan K. Ardis</i>	7624 Forest Dr. - Lake City 49651	8/30/97

# RESOLUTION

08/30/97






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<u>Name (Print)</u>	<u>Signature</u>	<u>Address</u>	<u>Date</u>
Richard Levandowski		7620 Forest	8-30-97
William Adams		7624 Forest	8-30-97
Jim Freeman		6950 W. "A" St	8-30-97
George W. Norberg		7800 Forest Dr.	8-30-97

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<u>Name (Print)</u>	<u>Signature</u>	<u>Address</u>	<u>Date</u>
DEROCHY KODL		1800 Sweet Briar	8/29/97
PATRICIA DALMAN		1907 Dutton Lane Nudling, MI (7168 W Lake)	8/29/97
Dan A. Osher		7168 W. LAKE	8/29/97
Joseph Vincent		Marshwood Dr. N 6809 Byron Center, MI	8/29/97
<del>Dave Smith</del> DAVE SMITH			
DAVE SMITH		36544 SAMOA STEWING HORS ME	8/29/97

# RESOLUTION

08/30/97

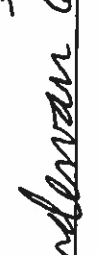


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<u>Name (Print)</u>	<u>Signature</u>	<u>Address</u>	<u>Date</u>
<u>Richard Deane</u>	<u>Richard Deane</u>	<u>1880 S. Pavilion</u>	<u>8-30-97</u>
<u>WILLIAM A. VOLKER</u>	<u>William A. Volker</u>	<u>7728 FOREST DR.</u>	<u>8-30-97</u>
<u>Roy T. SWEERS</u>	<u>Roy T. Sweets</u>	<u>7530 FOREST DR</u>	<u>8-30-97</u>
<u>Joe Little</u>	<u>Joe Little</u>	<u>8105 Ridgewine DR</u>	<u>8-30-97</u>
<u>DIAN M. LITTLE</u>	<u>Dian M. Little</u>	<u>8105 Ridgewine Dr.</u>	<u>8-30-97</u>

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<u>Name (Print)</u>	<u>Signature</u>	<u>Address</u>	<u>Date</u>
David Marilyn Zonder van		3476 Basswood Grandville, MI 49418	8-30-97
Tom Boongaard		603 Coolidge Midland, MI 48642	8-30-97
Thomas Sowle		6834 W. Fenwick Rd. Lake City, MI	8/30/97

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Name (Print)

Signature

Address

Date

Mark Steber

Mark Steber

1614 Birchaven Beach

8/30/97

Mike Hoewe

Michael Hoewe

7580 Forest Drive

8/30/97



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<u>Name (Print)</u>	<u>Signature</u>	<u>Address</u>	<u>Date</u>
Robert Levandowski	<i>Robert Levandowski</i>	6874 Lakeview Lake City MI	8-30-97
Alynn L. McCormie	<i>Alynn L. McCormie</i>	7246 Missaukee Blvd Lake City MI	8-30-97
Hazel P. Smith	<i>Hazel P. Smith</i>	6980 W. A. St.	8-30-97
Harold H. Seeburger	<i>Harold H. Seeburger</i>	1786 S. First St.	8/30/97
		1786 S. First St.	8/31/97
Elizabeth TH Seeburger	<i>Elizabeth Seeburger</i>	1786 S. First St	8-31-97
Alexander V Cleveland	<i>Alexander V Cleveland</i>	1833 Green Rd.	8-31-97
Kathryn J. Andrews	<i>Kathryn J. Andrews</i>	1850 S. Green Rd Wake City	9-7-97
Roger N. Andrews	<i>Roger N. Andrews</i>	1850 S. Green Rd Lake City	9-7-97

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Name (Print)

Signature

Address

Date

Raymond & Marjorie SAYEGH  8710 Ambrosia 9/5/97

MARY BALCEK  7279 Missaukee Blvd. 9/3/97

LORI L. BALCEK  7279 Missaukee Blvd. 9/7/97


Missaukee Lakes Association, Inc. (MLA)


Proudly presents this


# Certificate of Recognition

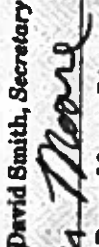
to  
Missaukee County Sheriff's Department  
for


Their efforts in patrolling and ensuring adherence to  
proper lake safety by lake users throughout 1997

  
William Ardis, Vice-President

  
David Smith, Secretary

  
Richard Levandoski, Treasurer

  
Roger Moore, Director

  
George Norberg, Director